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## EVIDENCE BRIEF

Rapid Initiation: Models for the Immediate  
Uptake of HIV Treatment

November 2017

**PositiveLifeNSW**  
the voice of people with HIV since 1988



## **ABOUT ACON**

ACON is New South Wales' leading health promotion organisation specialising in HIV prevention, HIV support and lesbian, gay, bisexual, transgender and intersex (LGBTI) health.

Established in 1985 as the AIDS Council of NSW, our mission is to enhance the health and wellbeing of our communities by ending HIV transmission among gay and homosexually active men, and promoting the lifelong health of LGBTI people and people with HIV.

## **ABOUT POSITIVE LIFE NSW**

Positive Life New South Wales (NSW) is the public face and voice of all people living with HIV (PLHIV) in NSW. As a peer-based agency, Positive Life makes a significant contribution to and positive impact across the spectrum of health and social issues on behalf of PLHIV. Positive Life collaborates with HIV specialist and mainstream organisations to improve the health and quality of life of PLHIV and do this through evidence based health promotion, policy advice and peer support.

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Between April and June 2017, 72 people were diagnosed with HIV in NSW. 48% of these diagnoses showed evidence of early stage HIV infection and 46% showed evidence of late diagnosis. 95% of diagnosed people in care were on treatment. 59% were on ART within six weeks of diagnoses, and 86% were on ART within six months of diagnoses. At six month follow up, 96% of newly diagnosed people on ART had achieved viral suppression (NSW Health, 2017a).

The NSW HIV Strategy is informed by the following science: 'Immediate initiation of HIV treatment is clinically superior to deferred treatment among people with HIV infection, regardless of CD4 count or stage of disease' (NSW Health, 2016, 7). The NSW Health quarterly data report on the implementation of the NSW HIV Strategy notes that 'Continuing efforts are also needed to further reduce the time between diagnosis and commencement of treatment' (NSW Health, 2017b, 2).

## BACKGROUND

ACON and Positive Life NSW have produced this Evidence Brief to assist HIV response partners when providing care and support to people newly diagnosed with HIV. The brief reviews current literature, implementation studies and service models and makes suggestions to ensure the best tools and processes are available to encourage immediate uptake of HIV treatment.

This Evidence Brief follows on from policy and epidemiological developments and supports a shift from early treatment (within six months of diagnosis) to immediate treatment (as soon as possible following diagnosis).

Immediate treatment can significantly improve the health and lives of people living with HIV (PLHIV).

In addition, immediate treatment is necessary to meet the goals of the current NSW HIV Strategy to virtually eliminate HIV transmission by 2020. It also supports the goals of UNAIDS 'Getting to Zero' through zero new HIV transmissions, zero HIV deaths, and zero HIV stigma by 2020.

The World Health Organisation (WHO) Guidelines for Managing Advanced HIV Disease and Rapid Initiation of Antiretroviral Therapy recommend that antiretroviral therapy (ART) is scaled up, that countries adopt a 'treat all' position, and that rapid initiation should be offered to all PLHIV following a confirmed HIV diagnosis and clinical assessment. They recommend that ART initiation should be offered on the same day as diagnosis to people who are ready to start (WHO, 2017).

## RATIONALE

Research now demonstrates that reducing the time between diagnosis and treatment results in health benefits and significantly lower risks of illness for PLHIV.

The Strategic Timing of Anti-Retroviral Treatment (START) study found that of 4,685 HIV-positive adults in 35 countries, antiretroviral therapy (ART) early in the course of HIV cut the risk for developing serious AIDS-related illness by more than 50% (Insight START Study Group, 2015). Damage to the immune system begins from the moment of transmission and continues even while CD4 cells are within normal ranges. Even though treatment may be able to reduce further damage, it may not necessarily be able to repair existing damage.

Viral replication commenced immediately after infection continues during chronic infection, in particular in the central nervous system and in lymphatic tissues. It is believed that effective (fully suppressive) therapy minimises, but does not eliminate, viral replication. Scientific consensus is that treatment should be commenced as soon as possible, so viral progression is decreased, and therapies should be delivered before the establishment of viral reservoirs.

Immediate treatment of HIV is consistent with how other STIs and communicable diseases are treated and, for PLHIV, can normalise HIV treatment.

The initiation of ART during very early or acute HIV infection increases the probability that the size and distribution of the HIV reservoir is minimised and that immune reconstitution to within normal ranges is maximised. More manageable treatments are now available with fewer and less serious side effects, lower pill burden, reduced dosing requirements, and drugs with lower susceptibility to development of HIV-associated drug resistance.

Immediate treatment also brings benefit at the population level. In addition to increasing health benefits for PLHIV, immediate treatment reduces onward HIV transmission, especially in the acute stages when HIV is acquired and viral load is high. In particular, when coupled with contact tracing this can provide significant benefit at a population level.

## POLICY CONTEXT

Increasing the proportion of people with diagnosed HIV on ART is a target of the NSW HIV Strategy 2016-2020. The Strategy aims to ensure that 90% of people diagnosed with HIV are on ART within six weeks of diagnosis and to further reduce this timeframe over the life of the Strategy. It notes that 'Rapid initiation of HIV treatment is also important to reduce the risk of onward HIV transmission at a time of high viral load' (NSW Health, 2016, 14).

The Strategy's goal is to have 95% of people with diagnosed HIV on treatment by 2020. The Strategy also recommends 'rapid uptake' of HIV treatment as a key focus and calls for 'renewed efforts' to ensure newly diagnosed people can be linked to care and initiate treatment within six weeks (NSW Health, 2016, 14). The imperative to treat is even more pressing for people with late diagnosis, which increases the risk of mortality and morbidity.

NSW Health and partners have committed to reducing this timeframe through streamlined referral to specialist services and improvements in laboratory turnaround times for HIV resistance typing.

Up until 2015, Australian Guidelines recommended that a person commence HIV treatment when their CD4 count had fallen below 500 cells/mm<sup>3</sup>. It recommended that initiation of treatment for people with CD4 counts above 500 cells/mm<sup>3</sup> should be considered in a range of situations including people who were at risk of onward transmission of HIV.

The evidence of positive benefits for the initiation of treatment while CD4 cells remained above 500 cells/mm<sup>3</sup> was provided by the START Study preliminary results issued that year. The World Health Organisation's Guideline on When to Start Antiretroviral Therapy and on Pre Exposure for Prophylaxis for HIV guidelines in 2015 recommends universal access to ART for all diagnosed persons (WHO, 2015).

In August 2015, the ASHM Sub-Committee for Guidance on HIV Management Committee stated that as a fundamental principle, ART be recommended irrespective of CD4 count to reduce the risk of HIV disease progression.

## DEFINITIONS

### UNDETECTABLE VIRAL LOAD/ SUPRESSED

What constitutes 'undetectable viral load' is not clearly defined in the Australian (ASHM) Guidelines. An undetectable viral load (UVL) is one where HIV RNA is not detectable by standard viral load tests. The World Health Organisation defines UVL as a viral load of under 200 copies/ml. However, most laboratory tests in Australia can detect a viral load as low as 20 copies/ml. A person may be considered to be sexually uninfected if they maintain a viral load of under 200/ml.

### IMMEDIATE, RAPID, EARLY TREATMENT

The 2012-15 NSW HIV Strategy recommended early treatment, commencing within six months of diagnosis. The current NSW HIV Strategy now promotes 'rapid treatment initiation' within six weeks of diagnosis (NSW Health, 2016, 14).

The World Health Organisation defines rapid initiation as within seven days from the day of HIV diagnosis, and recommends that people with advanced HIV disease should be given priority for assessment and initiation (WHO, 2017).

In this paper we use the term 'immediate treatment'. Immediate treatment is the dispensing or prescribing of ART at the time of HIV diagnosis. The caveats to this approach are discussed later in this document.

### STAGES OF INFECTION

While there is some conflation of terms across different studies, ASHM's HIV Management in Australasia: A guide for clinical care (ASHM, 2003) list the stages of HIV infection as acute primary illness, asymptomatic/early infection, symptomatic/intermediate infection and late-stage disease. ASHM's Guide for Primary Care Providers on HIV, viral hepatitis and STIs (ASHM, 2014) provides a 'natural history' of the progression of HIV in the body.

The acute phase is commonly defined as the period from appearance of HIV RNA (indicating effective transmission and permissive infection) to appearance of HIV-specific antibodies. Symptoms such as sweats, lethargy and rash may occur between ten days and six weeks after HIV exposure. At this time, viral load is high and the virus disseminates from the initial site of infection into different tissues and organs with symptoms such as fever and fatigue as a result of viral replication (Ambrosioni et al., 2014). This period of high-level viraemia is associated with a reduction in CD4 cell count.

During asymptomatic/early infection, PLHIV may have few symptoms, although may experience persistent generalised lymphadenopathy. Although CD4 cell count improves to near baseline levels, viral replication continues.

During symptomatic/intermediate infection there remain dermatological, oral and constitutional complications. If left untreated, CD4 cell count continues to decline. By late-stage disease, people with a CD4 cell count of less than 200 cells/mm<sup>3</sup> experience symptoms that are more frequent and difficult to treat, including AIDS-related illnesses (opportunistic infections or specific malignancies).

## EVIDENCE

The 2015 START study of 4,685 HIV adults in 35 countries has shown that early, if not immediate, treatment increases life expectancy, improves health and prevents serious illness by more than 50% compared to those who defer starting treatment.

Data from the Centers for AIDS Research Network of Integrated Clinical Systems (CNICS) cohort has found that immediate treatment is particularly important for people aged between 45 and 65. People in this age group who started treatment at lower CD4 counts (350 or 200) had higher mortality rates than those who began treatment when their CD4 count was 500 (Edwards et al., 2015).

In addition, the PrePARE study demonstrates increasing willingness among gay men to commit to treatment. In the study, agreement that early HIV treatment is necessary increased between 2013 and 2015, from 72% to 75% of all men; this increase was concentrated among HIV-positive men (Lea et al., 2015).

Research demonstrates that ART initiated within six months of HIV infection is associated with lower T-Cell activation and smaller HIV reservoir size (Jain et al., 2013).

Treatment during acute HIV infection is a 'critical first step in containing the HIV reservoirs' (Ananworanich, Dube and Chomont, 2015). In addition to having smaller blood reservoirs, patients treated during acute infection have more limited virus diversity and might be an ideal population for future eradication studies (Henrich and Gandhi, 2013).

Even very early treatment initiation does not fully normalise immune function (Sereti et al., 2017; Hunt, 2016), but the case for earliest possible treatment remains. Researchers have found that 'ART initiated in early acute HIV infection was associated with normalisation of the coagulation cascade and several systemic inflammatory biomarkers, but the acute-phase response, enterocyte turnover, monocyte activation, and fibrosis biomarkers remained elevated' (Serenti et al. 2017).

Data from the San Diego Primary Infection Resource Consortium (SD PIRC) demonstrates that early ART is associated with lower HIV DNA molecular diversity and lower inflammation in cerebrospinal fluid but does not prevent the establishment of compartmentalised HIV (Oliviera et al., 2016).

Similarly data from the SEARCH-Thailand research programs have recently demonstrated that very early ART during acute HIV infection (AHI) confers neuroprotective effects and is associated with less neuro-inflammation (Peluso et al., 2017).

In addition, the research suggests that later ART initiation may not completely halt or reverse neuro-inflammation: 'This ongoing immune activation likely explains the persistent neuronal injury demonstrated in individuals initiating treatment in CHI [chronic HIV-1 infection], and suggests it takes longer than one year to suppress CNS [Central Nervous System] immune activation' (Peluso et al., 2017).

Ongoing immune activation and inflammation in the central nervous system is possibly associated with a range of health issues including chronic ongoing fatigue, depression and HIV-associated neurological disorders (HAND).

*Neuronal injury does not begin during acute infection but is initiated at some point thereafter, presumably after several months of processes, including immune activation, which underlie HIV-related neuropathogenesis.*

*Moreover, neuronal injury does not seem to develop in individuals who begin treatment immediately after contracting HIV infection, whereas initiation of cART at a later time point in those who have been chronically infected may partially mitigate neuronal injury but does not necessarily result in the normalization of CSF NFL levels.*

*These findings may provide further rationale for identifying HIV-infected individuals as early as possible in the course of disease and initiating antiretroviral therapy at the time of diagnosis (Peluso, et al., 2015).*

The PARTNER study, involving 75 clinics in 14 European countries, found no cases where someone with a viral load under 200 copies/ml transmitted HIV, either by anal or vaginal sex. By the 21st International AIDS Conference (AIDS 2016) the study had found no HIV transmissions between 888 serodiscordant couples who had between then condomless sex an estimated 58,213 times where the HIV-positive partner had a viral load under 200 copies/ml (Rodger et al. PARTNER Study Group 2016, summarised in AIDSMap, 2016).

These findings are mirrored in the Kirby Institutes' four-year study Opposites Attract among gay men in serodiscordant relationships in Australia, Thailand and Brazil, where no HIV negative participant has acquired HIV via their HIV positive partner (Bavinton et al., 2017).

## MODELS FOR IMMEDIATE TREATMENT

International implementation studies and pioneering models of service delivery continue to demonstrate the benefits of immediate treatment and provide us with real world examples that could be considered for adaptation in Australian contexts.

### SAN FRANCISCO

RAPID (Rapid ART Program Initiative for HIV Diagnoses), a real world implementation study at San Francisco General Hospital found that providing same day, observed ART to newly diagnosed HIV positive outpatients was associated with improved virologic suppression. During 2006-2009 when ART was available based on CD4 count, it took an average of 128 days from diagnosis to have ART prescribed and 218 days to reach the WHO threshold of 200 copies/ml indicating viral suppression.

New guidelines from the San Francisco General Hospital (SFGH) HIV Clinic recommending universal ART in 2010 then reduced the time taken to initiate ART to 37 days and the time to suppression to 132 days (Geng EH, et al., 2012).

In 2013, SFGH introduced same-day initiation of ART as part of an 18 month demonstration project RAPID. The median time to ART initiation was reduced to 24 hours and time to viral suppression reduced to 56 days. In 2015 this program was expanded city-wide.

During the RAPID program, ART commenced following a brief medical evaluation but prior to lab results, including genotype results, being available.

The program targeted people with acute infection (who had tested HIV antibody negative within the past six months) and then later also targeted patients with a CD4 count of less than 200. The first several steps (including counselling, support for substance use and mental health, medical evaluation and lab testing) were collapsed into a single, longer visit on the day of diagnosis, facilitated by a taxi voucher to attend the clinic.

Five-day starter packs of ART regimens were pre-approved by a clinician committee based on data on patterns of transmitted drug resistance and best current evidence (most commonly Truvada + Dolutegravir).

The starter packs were dispensed along with a prescription so patients did not need to return. Instead of having to find a pharmacy, pick up their medication, and make an active decision to take them, patients were encouraged to open and take the first dose in the clinic in presence of provider. 35 of the 39 patients (89.7%) took their first dose in the clinic, and 94.9% of patients began ART within 24 hours.

The study found that ART could commence on the day of diagnosis without impacting its safety or acceptability. Minor toxicity with the initial regimen occurred in 2 (5.1%) of patients. In 2 RAPID cases, ART was changed because of a rash, whereas in 10 cases it was changed for simplification. There were no ART modifications for virologic failure and no resistance-driven ART changes after genotype results became available (Pilcher, et al., 2016).

### LONDON

At the sexual health clinic 56 Dean Street in London, a case note review was undertaken of 113 individuals diagnosed with acute HIV infection to identify any association between diagnosis, timing of initiation of cART and virological and immunological outcomes.

Following an HIV diagnosis, the clinic made an appointment for participants to receive care at a local hospital within two weeks. 77% of patients commenced ART at their first medical appointment, and 99% patients achieved viral suppression by 24 weeks (six months). The one patient exception dropped their viral load from 14 million copies/ml to 636 copies/ml by 24 weeks.

Viral suppression was more rapid with integrase inhibitors than other regimens (41 days compared with 90 days). The study suggests that early treatment with ART is acceptable and efficacious (Girometti et al., 2016).

### VANCOUVER

In 2013-14, researchers with the British Columbia Centre for Disease Control and Centre for Excellence in HIV/AIDS in Vancouver assessed a program at two sexual health clinics where rapid initiation was offered (Thumath M, et al., 2015).

Before the rapid referral program, it took an average of 21 days from diagnosis before patients saw a doctor. As part of the program, participants were offered a choice of counselling and referral to care, or counselling and referral to rapid, same-day connection to an HIV specialist, peers and social workers.

Of those diagnosed with acute infection, 84% chose the rapid referral program and on average they were linked to care within one day. Those diagnosed with chronic infection took an average of 14 days to connect to treatment. Doctors and nurses reported that patients had a strong interest in and high degree of satisfaction with immediate treatment.

### SOUTH AFRICA

In South Africa, RapIT (Rapid Initiation of Treatment) was an unblinded randomized controlled trial of single-visit ART initiation in two public sector clinics. Rapid initiation was defined within 90 days and viral suppression as below 400 copies/ml. The trial found that offering single-visit ART initiation increased uptake of ART by 36% and viral suppression by 26% (Rosen et al., 2016).

### SAN DIEGO

An observational study of rapid initiation in the San Diego Primary Infection Resource Consortium (SD PIRC) lends additional weight to arguments supporting the benefits of earliest possible treatment initiation (Hoenigl et al., 2016).

The researchers evaluated time to viral suppression among 86 people newly diagnosed with HIV who initiated ART within 30 days of diagnosis. The median time from an offer of immediate ART to starting ART was eight days.

Twenty-two (26%) initiated ART at their HIV care intake visit and 79% of these participants achieved viral suppression at week 12, 82% at week 24 and 88% at week 48. Time to viral suppression was significantly shorter in those receiving an integrase inhibitor compared with a protease inhibitor-based regimen.

## VOLUNTARY AND INFORMED DECISION-MAKING

All people diagnosed with HIV should make an informed decision if and when to start treatment. A person may need time to consider the commitment of taking daily oral medication over a lifetime. Qualitative data from the Seroconversion Study in Australia among people who have newly acquired HIV found that:

*The decision whether or not to commence ART by HIV-positive gay men continues to be a challenging one. The anxiety of coming to terms with their recent HIV diagnosis, the stigma still associated with HIV, their relationship with their clinician and the broader community, and concerns and doubts about the ART treatment itself have all been raised by study participants and present very real challenges to health professionals, government and community organisations (Kirby Institute, 2016, 2).*

If people are externally motivated to commence treatment before they are internally ready, there may be low compliance or adherence to the treatment regime, which could increase resistance. The best outcomes in terms of retention in care, sustained virological control, fewer medical interventions and fewer treatment switches are associated with higher levels of readiness to treat.

Qualitative research undertaken by the UNSW Centre for Social Research in Health (CSRH) among people who were not taking ART shows some 'did not feel ready to make the commitment required' and others 'faced challenges in accessing therapies due to their immigration status, financial situation or geographic location' (Newman, 2015). Some were concerned with the focus of treatment decisions upon potential community prevention benefit rather than benefits for the individual living with HIV and were more concerned with what was right for them: the interviews show 'a clear investment in the agency of the individual in making treatment decisions' (Newman et al., 2015b). Newman notes:

*We need to ensure that the growing focus on treatment uptake avoids contributing to practices or perceptions of coercion, which risk forcing those with even minor doubts into stronger positions of treatment refusal and mistrust in the healthcare system' (Newman, 2015a).*

Similarly, in a United Kingdom study among men who have sex with men (MSM), Victoria Parsons found that 'fear and toxicities were potential barriers to initiation' but that ART initiation was 'more likely if men believed it had health benefits or their clinician recommended it' (Parsons, 2016).

*Some men voiced a desire to be proactive and start early ART to control viral replication. In these cases men also reported a belief that ART could be temporary as they expected a cure in their lifetime. Men commonly described feeling 'infected' and reducing this infectiousness was seen as a major benefit of ART; not purely to reduce the risk of transmission to sexual partners but to facilitate disclosure to partners, reduce anxiety and guilt and restore sexual confidence commonly lost after HIV diagnosis (Parsons et al., 2014).*

It is imperative for the wellbeing of PLHIV that treatment policy does not further reinforce HIV stigma. As Guta, Murray and Gagnon argue, there remains a risk that 'the public health goals of treatment as prevention will result in a kind of viral-privileging in clinical care where the detectable (unsuppressed) become marked and subject to new forms of surveillance and shaming' (Guta, Murray and Gagnon, 2016).

There is also a risk that people who refuse or delay treatment may be further marginalized and no longer seen as a 'good' and 'proper HIV citizen' (Persson et al., 2016).

People newly diagnosed with HIV have the right to maintain control over their bodies and decisions, and those who do not desire or wish to postpone treatment should not be coerced into taking treatment.

Research on 'informal coercion' (for example, leverage or inducements to treat) in the context of mental health and AOD therapeutic interventions (Hotzy and Jaeger, 2016) suggests that while coercion to participate in treatment may mean patients are more likely to report taking medications as prescribed, this 'may come at the cost of decreased satisfaction with treatment' (McNiel, Gormley and Binder, 2013).



## PEER SUPPORT AS AN ESSENTIAL ELEMENT OF ACHIEVING OUTCOMES

By comparison, research into shared decision-making (SDM) shows that patient-directed care involves trust, communication and working in partnership to identify their needs and overcome barriers (Truglio Londrigan et al., 2014).

SDM is particularly important for people with long-term health conditions. A survey among nurses providing HIV care indicates that nurses face barriers to implementing SDM and identified a need for more training to support complex needs patients (Croston, McLuskey and Evans, 2016).

International standards also support SDM: the British HIV Association treatment guidelines recommend PLHIV are given the opportunity to be involved in making decisions about their treatment, and the European AIDS Clinical Society (EACS) treatment guidelines advocate a 'WEMS' technique to assess readiness to start treatment: waiting three seconds, echoing, mirroring, summarising (European AIDS Clinical Society, 2017).

The World Health Organisation Guidelines include a Good Practice Statement that recommends a 'treat all' policy 'where there is no clinical contraindication' and where people are 'fully informed' about the benefits of ART and option of same-day initiation. The statement specifically says that 'people should not be coerced to start immediately':

*ART initiation should follow the overarching principles of providing people-centred care. People-centred care should be focused and organized around the health needs, preferences and expectations of people and communities, upholding individual dignity and respect, especially for vulnerable populations, and should promote engaging and supporting people and families to play an active role in their own care by informed decision-making.*

If treatment is declined, the person's decision should be respected and they should be connected to other relevant supports including peer-led programs for newly diagnosed people.

Supporting immediate initiation of treatment is an individual process that will depend on individual circumstances including previous medical trauma. Although health practitioners can assist a person to take practical steps to prepare for treatment, getting emotionally ready to start and adhere to treatment is an individual process that can be supported by peers. Access to peer support for newly diagnosed people should be a formal and consistently applied standard of care.

Sometimes it can be difficult for a newly diagnosed person to understand the impact of HIV because it can be invisible and taking oral medication can represent a difficult reminder. Education and support to understand the evidence, find credible information, explain the process and hear peer experiences of treatment is essential to assist people to avoid anxiety and feel like they have agency in the decision-making process, which will encourage adherence.

Research among newly diagnosed Australian gay men about changes to their sexual behaviour since diagnosis has found that 'Enhanced peer-support may further reduce the likelihood of onward transmission after diagnosis.' (Prestage et al., 2016). In fact the study found that 'the risk of onward transmission is likely to be less affected by immediate versus early treatment than it is by earlier diagnosis and peer-support for those newly diagnosed with HIV.'

The forthcoming Australian Standards of Psychosocial Care for Adults Living with HIV states that in order to provide good care, access to peer support is priority. Peer support is an essential part of psychological support. PLHIV as partners in health need to play an equal role in the provision and dissemination of information about living with HIV and HIV services to other PLHIV (2017, ASHM, forthcoming).

Peer support as a standard of care should be offered to a person at the point of HIV diagnosis and be available within 48 hours while the person is within the care of their counsellor in order to reduce the steps to support. Protocols should be established whereby general practitioners can refer a newly diagnosed person to local peer support including follow up.

Peer support should be culturally appropriate and available for heterosexual men and women, people from culturally and linguistically diverse (CALD) and Aboriginal and Torres Strait Islander (ATSI) backgrounds, and people with a trans or gender diverse experience.

Peer support is different to and necessary in addition to sexual health or trauma counselling. This could be possible by phone, skype or in-person depending on what is most comfortable and convenient to the newly diagnosed person. Newly diagnosed people could then be referred to services such as Positive Life's Treatment Officer and ACON and Positive Life's Genesis program and START resource.

## IMPROVING TREATMENT ACCESSIBILITY

There are structural changes that could improve treatment accessibility for people newly diagnosed. For example, developing a clear protocol and referral pathways to ensure that migrants, refugees, visitors, temporary visa holders, non citizens and people without Medicare access are afforded the same access to HIV treatment as citizens, and working to remove barriers to migration for PLHIV.

In addition, international models demonstrate how newly diagnosed people can be supported in their decisions around treatment. The RAPID protocol implemented in San Francisco aims to link people into care by reducing the number of steps in the process to access treatment.

Having a single visit instead of multiple visits can reduce anxiety around the decision of whether or not to go on treatment. This process has led to high rates of viral suppression and treatment uptake.

In NSW, only s100 prescribers can prescribe ARTs, and they are most commonly available at high HIV caseload GP clinics, hospitals and sexual health clinics. S100 prescribers continue to have strong leadership role in the NSW response, however there are limited numbers which presents challenges for immediate initiation of treatment.

2017 Quarter 2 data from NSW Health indicates that most new diagnoses are happening at sexual health clinics (including community testing sites) (28%) and among General Practitioners (GPs) who are not s100 prescribers (29%), followed by in hospitals (24%). Only 6% of diagnoses occurred among s100 GPs (NSW Health, 2017a).

For those who were not diagnosed by s100 prescribers, the time from diagnosis to first appointment may be longer. These GPs can seek support via the HIV Support Program. Strengthening the relationship and streamlining communication between GPs and the HIV Support Program remains critical so that GPs can access expert guidance and recently diagnosed people can be connected into specialised support services.

An example of an innovation could include an s100 prescriber issuing a standing order that would allow nurses, pharmacists or other clinicians to facilitate immediate uptake of an ART starter pack and minimise the steps to

treatment. Standing orders are routine practices in other clinical areas and could assist to retain people in care.

While it would not be practical for all GPs to stock starter kits, starter kits could be stocked in hospitals and sexual health services in places with high numbers of diagnoses.

Standing orders and pre-approved starter kits dispensed along with a prescription could be useful both in areas where HIV diagnoses are concentrated (Sydney and South Eastern Sydney Local Health Districts) but could also be useful for people living in regional and rural areas, for Aboriginal and Torres Strait Islander, CALD, transient, homeless and displaced populations who face barriers to access, face treatment delay concerns and may be lost to care.

If treatment was offered immediately upon diagnosis, the newly diagnosed person could be given a 'low-risk' generic starter kit containing ARVs which are known not to induce acute adverse reactions (for example, tenofovir but not abacavir), with high antiviral potency (include integrase inhibitors), have minimal pill burden, are not associated with prevalent transmitted drug resistance (TDR) and have few potential side effects.

While a person has commenced on a starter kit, follow up tests would determine their viral load, CD4 cell count, the most effective drug combination, and any predisposing risk factors for side effects.

The NSW HIV Prevention Partnership Project (NHPPP) Treatments Pillar Working Group sub-study has undertaken an analysis of the rates of TDR during the roll-out of PrEP and early treatment and has found that rates of TDR are decreasing and lower than previously reported (Kirby Institute, unpublished data, 2017).

The risk of potential harms associated with treating with a standard generic ARV combination is small, and is likely outweighed by the benefits of having the person with HIV on treatment with its associated outcomes of reduced infectivity and a sense of increased personal control over a potent viral infection.

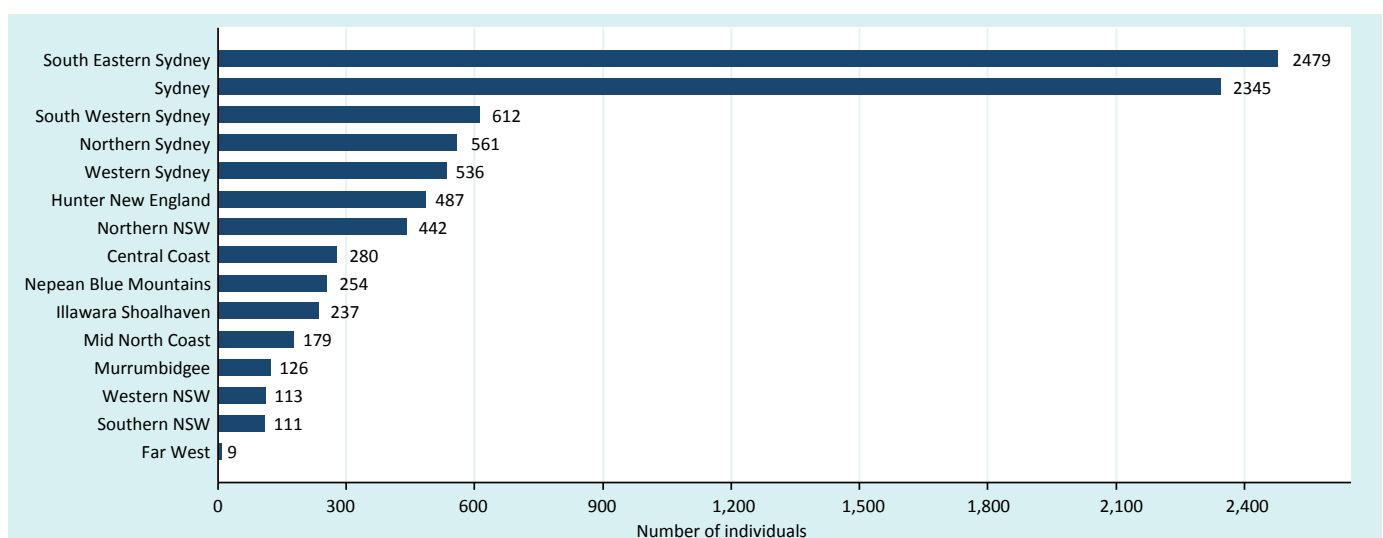


Figure 17: The number of NSW residents dispensed ART for HIV, by the LHD of patient residence, from 1 April 2016 to 31 March 2017. NSW HIV Strategy 2016-2020: Data Report

Immediate treatment starting on the day of diagnosis may reduce steps to treatment for people who live regionally, rurally or remotely, who are not connected to community, who have additional barriers, or who may not have frequent access to sexual health networks where HIV medicines are available. In some regional areas care may be dependent on staff availability and there may be a longer turnaround for pathology from blood draw.

## SUPPORTING PEOPLE WITH COMPLEX NEEDS

The decision to start treatment will always be subject to personal variables – for example, a clinician may delay HIV treatment to prioritise treating a pre-existing infection. The NSW HIV Strategy recognises that ‘not all patients may be able to commence treatment before concurrent medical conditions or psychosocial issues are effectively managed’ (NSW Health, 2016, 14).

To support readiness for treatment, newly diagnosed people may also require support to access safe and affordable housing, support in managing substance use, support to address mental health issues or to seek employment.

People with complex needs should be offered integrated and coordinated services to address social determinants of health at same time as starting treatment. It is vital that these services sit alongside immediate initiation of treatment.

A recent meta-analysis of observational studies in the US examining the association between housing stability and ARV adherence amongst people with HIV found that medication adherence is an increasing function of housing stability, but the magnitude of the effect was small. They concluded: ‘The finding challenges the view that unstable housing is incompatible with adherence and questions the potential benefit of deferring antiretroviral therapy initiation until the patient’s housing circumstances are improved’ (Harris, R.A. et al. 2017).

There are a range of support programs available to assist people access relevant health care and social support programs. ADAHPS provides free support to PLHIV in NSW who have, or suspect they have, cognitive impairment and related complex health issues caused by HIV. ACON’s care coordination team of allied health professionals assist clients with multiple and complex needs, in addition to substance support services with education on AOD use to assist clients with reducing harm of use, cutting down or stopping. Positive Life NSW has a Housing Officer to assist PLHIV to locate and maintain stable accommodation and a Work Ready program to support people returning to work. The HIV/AIDS Legal Centre provides free legal advice, information and referral for people with an HIV-related legal problem.

## PRACTICAL RECOMMENDATIONS FOR CLINICIANS AND SERVICES

While there remain challenges for both services and individuals to implementing immediate treatment, ACON and Positive Life offer the following strategies to increase the uptake and access.

- Explore opportunities to make starter kits for same-day ART available for those wishing to begin immediately.
- Investigate avenues for s100 prescribers to issue Standing Orders permitting other clinicians to prescribe and dispense ART.
- Strengthen the relationship and streamline communication between GPs and the HIV Support Program so that GPs can access expert guidance and recently diagnosed people can be connected into specialised support services.
- In situations where mental health, substance misuse and socio-economic indicators are such that retention in care, ART adherence and full virological control may be challenging for the individual, care coordination should be considered as a urgent priority alongside immediate treatment initiation.

## POLICY RECOMMENDATIONS FOR IMMEDIATE TREATMENT

- Treatment should be offered to a person at the point of being diagnosed with HIV.
- Treatment should commence as soon as possible following diagnosis.
- The decision of when and if to undertake treatment is up to the individual and must be voluntarily and fully informed through the clear articulation of the advantages and disadvantages of immediate treatment.
- Peer support, as a standard of care, should be offered at the point of diagnosis, as well as a measurable outcome of the Health Care Support Program (HSP) and be arranged whilst in care.

NSW has comprehensive processes in place to support people newly diagnosed with HIV. This existing infrastructure is well-placed to facilitate the uptake of treatment among newly-diagnosed people.

## SUPPORT SERVICES

### GENESIS

Genesis, a partnership between ACON and Positive Life NSW, delivers peer-run weekend workshops for gay men recently diagnosed with HIV. The workshops are peer-led and presented, and aim to give PLHIV the confidence and the capacity to manage HIV within the life they choose to live.

Genesis provides practical advice, information and a peer perspective on a wide range of issues that can confront people after diagnosis, including basic HIV information, sex, and telling others. There is also time set aside for sharing personal experiences, problems and possible solutions with the support and encouragement of other gay men who are experiencing or have been through a diagnosis.

P: (02) 9206 2000  
E: [hivliving@acon.org.au](mailto:hivliving@acon.org.au)  
W: [acon.org.au/genesis](http://acon.org.au/genesis)

### START RESOURCE

The state-wide START resource provides newly diagnosed people with information about immediate treatment and peer support.

W: [acon.org.au/start-resource](http://acon.org.au/start-resource)

### TREATMENT OFFICER

Positive Life NSW works to promote a positive image of people living with HIV. Positive Life NSW provides information and targeted referrals, and advocates to change systems and practices that discriminate against people living with HIV in NSW. Positive Life NSW's Treatment Officer assists people in discussing treatment options.

P: (02) 9206 2173

### NEWLY DIAGNOSED COUNSELLING

ACON provides free counselling support and information for people recently diagnosed with HIV, or affected (partners, family or friends). Counselling offers a safe place to discuss the needs and feelings associated with a recent diagnosis and links to services. Follow up is provided within one working day and can be offered through face-to-face contact or by phone.

P: (02) 9206 2000  
W: [acon.org.au/what-we-are-here-for/hiv-support](http://acon.org.au/what-we-are-here-for/hiv-support)

### PSYCHO-SOCIAL SUPPORT

ACON provides further psycho-social support for people newly diagnosed with HIV, including connecting people with workshops, counselling, treatment information and online resources. ACON provides free confidential short-term counselling support to people within 24 hours of HIV diagnosis, connects people to one-on-one peer support, provides a free weekly meal service within a friendly space where people can ask questions or seek referrals, and runs two free health retreats each year for Aboriginal and Torres Strait Islander people, and for gay men living in regional and rural NSW.

P: (02) 9206 2000  
W: [acon.org.au/what-we-are-here-for/hiv-support](http://acon.org.au/what-we-are-here-for/hiv-support)

### ONE TO ONE PEER SUPPORT

ACON and Positive Life NSW also offer support from HIV positive peers who work with positive gay men. Peers are able to provide one-to-one support to those men who may want to talk to someone who understands, but who may not necessarily want to speak to a counsellor.

P: (02) 9206 2000  
E: [hivliving@acon.org.au](mailto:hivliving@acon.org.au)  
W: [positivelife.org.au/living-with-hiv/social-support.html](http://positivelife.org.au/living-with-hiv/social-support.html)  
W: [acon.org.au/what-we-are-here-for/hiv-support](http://acon.org.au/what-we-are-here-for/hiv-support)

### SUBSTANCE SUPPORT SERVICE

ACON's Substance Support service provides free short term face to face, phone or Skype counselling of up to 12 sessions with the ability to re-enter as required. Counsellors assist people to better manage their use, cut down or quit. ACON also provides counselling for partners, friends and family affected by a loved ones' AOD use.

P: (02) 9206 2000  
E: [intake@acon.org.au](mailto:intake@acon.org.au)  
W: [acon.org.au/what-we-are-here-for/alcohol-drugs](http://acon.org.au/what-we-are-here-for/alcohol-drugs)

### NAPWHA

Nationally, NAPWHA has a checklist guide to assist people living with HIV to work in partnership with their doctor to create a comprehensive health care plan for living well with HIV.

P: (02) 8568 0300  
W: [napwha.org.au](http://napwha.org.au)

### THE INSTITUTE OF MANY

The Institute of Many (TIM) is a peer-run group for PLHIV to share experiences in an informal, confidential environment, in person and online.

W: [theinstituteofmany.org](http://theinstituteofmany.org)

### SEXUAL HEALTH CENTRES

Local Sexual Health Centres (often attached to a public hospital) may also have confidential counsellors available. Look under 'Sexual Health Clinics' in the White Pages for your nearest location, including regional clinics, or visit:

W: [endinghiv.org.au/nsw/where-to-test](http://endinghiv.org.au/nsw/where-to-test)

### HIV/AIDS LEGAL CENTRE (HALC)

HALC provides free legal advice, information and referral for people living in NSW with an HIV-related legal problem.

P: (02) 9206 2060  
E: [halc@halc.org.au](mailto:halc@halc.org.au)  
W: [halc.org.au](http://halc.org.au)

### MULTICULTURAL HIV/AIDS & HEPATITIS C SERVICE (MHAHS)

The Multicultural HIV and Hepatitis Service (MHAHS) works with culturally and linguistically diverse (CALD) communities in NSW to improve health and well-being in relation to HIV, hepatitis B and hepatitis C. The service works with more than 20 language groups and implements a range of health promotion, community development and media initiatives, as well as offering individual assistance to people living with HIV.

P: 9515 1234 or 1800 108 098  
E: [info@mhahs.org.au](mailto:info@mhahs.org.au)  
W: [mhahs.org.au](http://mhahs.org.au)

### POZHET

Pozhet is a small, volunteer-run organisation for heterosexual people living with HIV in New South Wales. Pozhet provides confidential support and information for people affected by HIV, runs community education sessions and peer support events, develops resources, and link members with health and social services.

W: [pozhet.org.au](http://pozhet.org.au)

### ASHM

ASHM provide a list of S100 prescribing doctors in NSW and offers training and support.

W: [ashm.org.au/images/prescriber/ashmprescribers.pdf](http://ashm.org.au/images/prescriber/ashmprescribers.pdf)

### HIV SUPPORT PROGRAM

General Practitioners are supported by NSW Health's HIV Support Program for Clinicians, which supports diagnosing clinicians to link people to specialist and community services.

### NSW SEXUAL HEALTH INFOLINK

The Sexual Health InfoLine is a NSW Ministry of Health funded information and referral telephone line and website. InfoLink has been in operation since 1989 and is staffed by specialist sexual health nurses from 9:00am to 5:30pm. InfoLink provides sexual health information and referral to community members and provides specialist clinical support and information to nurses, doctors and other professionals who are treating clients with sexual health issues.

W: [shil.nsw.gov.au](http://shil.nsw.gov.au)

Key data to 30 June 2017

HIV INFECTIONS			
	Target group	Apr-Jun 2017	Compared with Apr-Jun 2011-2016 average
<b>Number of NSW residents newly diagnosed</b>	Total count	72	15% less (Q2 2011-2016 average=85)
	Count who were men who have sex with men (MSM)	48 (67% of total)	32% less (Q2 2011-2016 average=71)
<b>Number of MSM newly diagnosed with evidence of early stage infection</b>	MSM	23 (48%)	35% less (Q2 2011-2016 average=35.3)
<b>Number and proportion of new diagnoses with evidence of late diagnosis</b>	All new diagnoses	33 (46%)	18% more (Q2 2011-2016 average=28; 168/511-33% late)
PREVENT			
	Target group	Mar 2016 - Jun 2017	
<b>Number of people receiving PrEP through EPIC-NSW</b>	People in NSW at high risk of HIV infection	6336	
TEST			
	Target group	Apr – Jun 2017	Compared with Apr-Jun 2016
<b>Number of HIV serology tests performed in NSW</b>	All	138,952	3% more (n=135,164)
<b>Number of HIV tests performed in NSW public sexual health and HIV clinics, and priority LHD settings</b>	All	16,397	21% more (n=13,523)
	Identifying as MSM	10,131	14% more (n=8,884)
TREAT			
	Target group	Jul 2016 – Jun 2017	Target
<b>Proportion of patients with diagnosed HIV infection in care, who were on treatment</b>	Sexual Health and HIV Clinic attendees	95%	95%
	Select high and medium caseload general practices	95%	95%
<b>Proportion of NSW residents newly diagnosed with HIV who commenced ART within six weeks and six months of diagnosis</b>	Newly diagnosed cohort for January - December 2016	59% (n=186/317) on ART within six weeks of diagnosis	At least 90%
		86% (n=273/317) on ART within six months of diagnosis	100%
<b>Proportion of NSW residents newly diagnosed who were on ART and were known to be virally suppressed (VL &lt; 200 copies/mL) at 6-month follow-up</b>	NSW residents newly diagnosed January - December 2016	90% (n=246/273) with a post-ART VL. 96% (n=235/246) virally suppressed.	100%

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## NOTES

## NOTES



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