HIV Update

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NSW Ministry of Health
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Goal: To work towards the virtual elimination of HIV transmission in NSW by 2020

Key targets include:

- Reducing the transmission of HIV among gay/MSM by 60% (and by 80% by 2020)
- Decreasing rates of HIV transmission among Aboriginal populations and heterosexual populations by 50%
- Reducing the average time between HIV infection and diagnosis from 4 ½ years to 1 ½ years
- Increase to 90% the proportion of people with HIV who are on antiretroviral treatment, to improve health and to reduce HIV transmission
NSW HIV Strategy 2012-2015
A New Era

- **Testing:**
  - make it easier to get tested
  - encourage more testing

- **Treatment:**
  - increase uptake and early initiation
  - treatment, care and support in the community

- **Prevention:**
  - safe sex
  - Needle and Syringe Program

\[
\begin{align*}
\text{TEST MORE} + \text{TREAT EARLY} + \text{STAY SAFE} &= \text{ENDING HIV}
\end{align*}
\]
NSW HIV notifications

Number and per cent of all NSW residents newly diagnosed with HIV by reported stage of infection at diagnosis\(^1\), 1 January 2009 to 31 December 2014

![Chart showing per cent of new diagnoses by stage and year diagnosed]

- **Early**: Evidence of HIV infection acquired within 12 months of diagnosis.
- **CD4 500+**: CD4 count greater than 500.
- **CD4 350-499**: CD4 count between 350 and 499.
- **CD4 200-349**: CD4 count between 200 and 349.
- **Advanced**: CD4 count less than 200 or AIDS defining illness in absence of evidence of ‘Early’ diagnosis.
- **Unknown**: Not known.

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\(^1\)Evidence of early stage infection was defined as notification of a seroconversion-like illness or negative or indeterminate HIV test within 12 months of diagnosis, irrespective of CD4 or presentation with an AIDS defining illness at diagnosis.

Data source: NSW HIV/AIDS Database, Health Protection NSW.
# Priority Populations for HIV testing

<table>
<thead>
<tr>
<th>RISK GROUP</th>
<th>FREQUENCY OF HIV TEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men who have sex with men (MSM)</td>
<td>All Annually</td>
</tr>
<tr>
<td>MSM with risk behaviours e.g. unprotected sex</td>
<td>3 – 6 monthly</td>
</tr>
<tr>
<td>Injecting drug users</td>
<td>Once, then annually if continued use</td>
</tr>
<tr>
<td>Contacts (blood or sexual) or someone with HIV (or at risk of HIV)</td>
<td>Once, then annually if ongoing exposure</td>
</tr>
<tr>
<td>Anyone diagnosed with an STI, or hepatitis B or C</td>
<td>Once, and with any subsequent infection</td>
</tr>
<tr>
<td>Anyone with multiple partners, or recent partner change</td>
<td>Once, then annually if ongoing risk</td>
</tr>
<tr>
<td>Anyone reporting risk behaviours in high-prevalence countries</td>
<td>Once, then annually if ongoing risk</td>
</tr>
<tr>
<td>Migrants from high-prevalence countries, or partners of such migrants</td>
<td>Once, then annually if ongoing risk</td>
</tr>
<tr>
<td>Pregnant women</td>
<td>First antenatal visit each pregnancy</td>
</tr>
<tr>
<td>Anyone who received blood products in Australia before 1985</td>
<td>Once</td>
</tr>
<tr>
<td>Anyone with features of HIV infection (opportunistic infections, HIV-linked malignancy, conversion symptoms)</td>
<td>Once</td>
</tr>
<tr>
<td>Anyone who requests a test or as part of a sexual health “check up”</td>
<td>Once</td>
</tr>
</tbody>
</table>

HIV testing indicator conditions

- Any AIDS defining condition - e.g. TB, cerebral toxoplasmosis, CMV retinitis, oesophageal candidiasis (in absence of dentures, corticosteroids and antibiotics)

- An HIV test should be offered if an STI, hepatitis B or hepatitis C is suspected or diagnosed

- Multiple other indicator conditions may present to ED for which HIV may be a differential diagnosis - e.g. chronic diarrhoea, PUO
HIV Testing Procedures

- Formal pre- and post-test counselling is no longer best practice for HIV testing.
- Written specific consent is not a requirement nor recommended practice.
- Informed consent still applies but it is no more onerous than for any other disease.
- A mix of testing modalities are available in NSW including: rapid HIV testing (PoCT) and community site testing, and home-based sampling (DBS) is on the horizon in NSW.
HIV Treatment

- Treatments for HIV have evolved and dramatically changed the approach to clinical HIV management.
- Treatment regimens have been simplified with co-formulation of compounds and the side effect profile of many medications have improved considerably.
- HIV is now considered a manageable chronic condition requiring lifelong treatment.
- AIDS-related mortality has declined, but HIV +ve people are at greater risk of cancers, cardiovascular disease, mental health disorders, and other co-morbidities compared to people without HIV infection.
Treatment as Prevention

The goal of antiretroviral treatment (ART) is to:

(1) reduce the HIV viral load to prevent disease progression and reduce HIV-associated morbidity and mortality

(2) reduce the risk of HIV transmission

- Risk of HIV transmission is higher when plasma VL is high – e.g. during seroconversion and advanced disease
- Guidelines recommend starting treatment for all HIV-infected individuals – *PBS restrictions for threshold CD4 cell count were removed in March 2014*

Post-Exposure Prophylaxis (PEP)

- Case-buy-case assessment of risk, harms & benefits

  Risk of HIV transmission
  \[= \text{risk per exposure} \times \text{risk of source being HIV positive}\]


- PEP should be prescribed as soon as possible after the exposure and **within 72 hours**

- Where HIV, STI or other blood borne virus (HBV/HCV) testing is considered, it is essential to establish the timing of potential risk exposure as part of clinical assessment
Pre-Exposure Prophylaxis (PrEP)

- Increasing access to and uptake of PrEP is a high priority for the NSW HIV response
- PrEP is highly efficacious for high risk MSM
- PrELUDE trial is assessing the ‘real world’ implementation of PrEP
- Truvada® licensed by FDA (US) for PrEP, but not yet licensed by TGA in Australia for PrEP
Summary

- **Testing for STI/HBV/HCV? – Think HIV**
- Approximately 10-20% of people living with HIV in Australia do not know they are infected
- HIV is treatable with an excellent prognosis if diagnosed early and treatment started
- Treatment helps to prevent transmission
- Groups diagnosed late include >50 years, heterosexual people, people from CALD backgrounds