U=U: a multidisciplinary approach
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Why are we discussing U=U?

• Not everyone is onboard as messages differ from ‘zero risk’ ‘virtually no risk’ ‘negligible’ this can be confusing.

• What about viral load is it >200 >50 >20?

• “I have a patient who...”

• ”I just don’t understand the science....”
**The Evidence**

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
<th>Reference</th>
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</thead>
<tbody>
<tr>
<td>Swiss Statement</td>
<td>Expert opinion and evidence review of &gt;25 smaller studies looking at impact of ART on risk factors for HIV transmission.</td>
<td>2008 Vernazza P et al. [7]</td>
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<tr>
<td>Concluded that transmission would not occur undetectable with viral load.</td>
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<th>Study</th>
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<td>HPTN 052</td>
<td>1763 serodifferent heterosexual couples randomised to immediate or deferred ART. Although condom use was high the impact of ART was highly significant.</td>
<td>2011 Cohen M et al. [8, 9]</td>
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<tr>
<td>All infections occurred in people with detectable viral load: n=17 in the deferred ART group and one early infection in the ART group before VL was undetectable. Follow-up reported out to four years.</td>
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“an HIV positive person on effective HIV treatment (ART) cannot transmit HIV through sexual contact”

- on ART and adherent
- undetectable VL
- no STIs
- risk <1 in 100,000 (<0.001%)
## The Evidence

<table>
<thead>
<tr>
<th>PARTNER</th>
<th>Prospective observational European study in ~900 serodifferent couples who were not using condoms.</th>
<th>Final results reported zero transmissions after more than 58,000 times couples had sex without condoms when viral load was undetectable &lt;200 copies/mL.</th>
<th>2014 (interim). 2016 (final)</th>
<th>Rodgers A et al. [10, 11]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opposites Attract</td>
<td>Prospective observational study in 358 serodifferent gay male couples in Australia, Thailand and Brazil.</td>
<td>Zero transmissions when viral load was undetectable &lt;200 copies/mL.</td>
<td>2017</td>
<td>Grulich A et al. [12]</td>
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</table>
PARTNER 2

• 900 gay couples only (March 2014 to May 2018)
• Aim - to provide a similar level of confidence for gay men to PARTNER
• The PARTNER study recruited HIV couples (one partner positive, one negative) at 75 clinical sites in 14 European countries. They tested the HIV-negative partners every six to 12 months for HIV, and tested viral load in the HIV-positive partners. Both partners also completed behavioural surveys. In cases of HIV infection in the negative partners, their HIV was genetically analysed to see if it came from their regular partner.
• The study found no transmissions between gay couples where the HIV-positive partner had a viral load under 200 copies/ml – even though there were nearly 77,000 acts of condomless sex between them.

Q: What would you say to HIV information providers who are withholding this [U=U] information from people with HIV?

A: "It is very, very clear that the risk is zero. If you are on suppressive ART you are sexually non-infectious. **THE TIME FOR EXCUSES IS OVER.**"

Dr. Alison Rodger, lead author of PARTNER2 at the International AIDS Conference - AIDS 2018 [presentation] (July, 2018)
This means...

• If you are HIV positive and undetectable you cannot pass the virus on to sexual partners.

• The challenge since 2008 is whether HIV transmission can occur – so far this not been proven. There is no evidence, anywhere, that anyone has transmitted HIV when they have an undetectable viral load

In absence of evidence, having an opinion against U=U is either out-of-date or just prejudice - Simon Collins (i-Base)
That’s Amazing But....

• This is not a campaign to promote unprotected sex.

• We still need studies on breastfeeding and blood transmission.

• There are people living with HIV who despite everything cannot get to undetectable.

• Globally there are people living with HIV who cannot access ART.

• There are people living with HIV who decide not to take treatment (intentional non-adherence)
What Can We Do?

- It’s a multidisciplinary team approach – we should all be passing on the same information.
- Reiterate - talk to people living with HIV about the necessity of staying undetectable for U=U to be applicable.
- Adherence management – discuss the importance of taking ART as prescribed to maintain health and prevent onward transmission.
- Encourage engagement – ensure people living with HIV attend appointments and are fully engaged with their care and have knowledge of their viral load status. This means also discussing issues that may effect their adherence and engagement. What else is going on for them, lifestyle, home, finances etc.
**U=U**

Undetectable = Untransmittable

Did you know that having an undetectable viral load on HIV treatment (ART) stops HIV transmission?

**U=U stands for: Untransmittable**

- **U** = Undetectable
- **=** = Equals
- **U** = Untransmittable

**It is important to monitor and treat STIs, but they are unlikely to affect U=U.**

**In U=U, doctors should talk to all their patients about how ART stops transmission.**

- **What is U=U?**
  - U=U means that someone with an undetectable HIV viral load on ART cannot transmit HIV, even without using condoms or PrEP.

- **What does U=U involve?**
  - Taking ART every day.
  - Having undetectable viral load for at least 6 months.
  - Continuing to take your meds every day.

- **How can U=U not be a risk?**
  - The quick answer is when HIV viral load is undetectable there is too little virus in sexual fluid for an infection to occur.

- **What if I miss my meds?**
  - Missing your meds once will not change U=U.
  - But missing meds for 2-3 days might be enough to cause viral load to become detectable.

- **Good adherence is essential for U=U.**

- **What about viral load dips?**
  - Sometimes viral load can “drop” until below 50 copies/ml, but did not affect the PARTNER results.

- **How do we know U=U is no effective?**
  - Researchers have known for over 50 years that ART reduces transmission risks. But it is only recently that the zero risk has been proved.

- **The PARTNER studies included couples where one partner was HIV positive on ART and the other HIV negative.**

- **The positive partner needed to have an undetectable viral load and the couple needed to be having sex without condoms.**

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**U=U Undetectable viral load means HIV is UNTRANSMITTABLE**

www.i-base.info/u-equals-u

**“A person with sustained undetectable levels of HIV in their blood cannot transmit HIV to their sexual partners.”**

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**Does U=U apply to breastfeeding?**

- Although an undetectable viral load on ART also reduces the risk from breastfeeding, it doesn’t reduce this risk to zero.

- The U=U statement says that “there should be no doubt that a person with an undetectable, sustained undetectable viral load in their blood cannot transmit HIV to their sexual partner.”

*Produced by I-Base for Kobler@CWH (September 2018)*
Organisations endorsing BHIVA's position on U=U to date include:

Organisations wanting to endorse BHIVA’s statement please contact Jo Josh at jo@commsbiz.com
Resources

- [https://www.preventionaccess.org](https://www.preventionaccess.org) – equal access to the HIV prevention revolution based on #ScienceNotStigma. All people living with HIV have a right to accurate and meaningful information about their social, sexual and reproductive health.

- [http://positiveseries.org](http://positiveseries.org) – offers downloadable and customizable social marketing campaigns to educate about U=U and encourage engagement in care.

References


- Cohen MS et al. Final results of the HPTN 052 randomized controlled trial: antiretroviral therapy prevents HIV transmission. IAS 2015, 19 – 22 July 2015, Vancouver. MOAC0101LB. http://dx.doi.org/10.7448/IAS.18.5.20482


