HIV Concordance testing after a positive STI result, findings from the STRIVE trial
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Background: STRIVE STI co-infections in remote Aboriginal communities: females

STRIVE: STI co-infections in remote Aboriginal communities: males

HIV testing
Australia has some of the highest HIV testing rates in the world
Estimated ~10-15% of people living with HIV do not know they have HIV

Populations such as Aboriginal and Torres Strait Islander people should be prioritised in HIV testing practices because of
- Any STI prevalence in remote communities is between 40-50%
- Lower access to and use of appropriate PHC
- Circumstantial evidence around higher IDU and risk practices
- Higher incarceration rates (although low rates of transmission in prison)

Other risk factors
- Syphilis outbreak in remote communities
- Recent HIV notifications in remote areas
- Presence of other STIs increases facilitation of HIV

Acknowledgements
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HIV testing guidelines

Patients who have had negative test results after presenting for STI/HIV assessment should return three months later to be tested again for: hepatitis B, HIV, syphilis. (WA Silver Book)

Patients tested after a positive diagnosis (CARPA STM)

STRIVE

A cluster randomised trial of 68 sites in Australia

To test whether a Sexual Health Quality Improvement Program (intervention) can achieve best practice targets in clinical sexual health service delivery, and if so...

Can it reduce community STI prevalence

Methods

Laboratory data from the STRIVE sites from 2010 to 2014

Data analysed to identify HIV testing:

• within 30 days of an STI diagnosis (chlamydia, gonorrhoea or trichomonas)

• On the same day as an STI test

Consultation data for 42 NT sites was used to analyse testing in symptomatic patients

Number of 16-34yr olds tested for STIs in STRIVE sites, 2009-2014

Results: People with a positive STI result who were tested for HIV, by sex
Results: People with a positive Chlamydia result who were tested for HIV, by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total positive</th>
<th>Tested for HIV within 1-30 days</th>
<th>No test</th>
</tr>
</thead>
<tbody>
<tr>
<td>males</td>
<td>1635</td>
<td>815</td>
<td>51</td>
</tr>
<tr>
<td>females</td>
<td>482</td>
<td>2915</td>
<td>142</td>
</tr>
</tbody>
</table>

People with a positive Gonorrhoea result who were tested for HIV, by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total positive</th>
<th>Tested for HIV within 1-30 days</th>
<th>No test</th>
</tr>
</thead>
<tbody>
<tr>
<td>males</td>
<td>1817</td>
<td>3113</td>
<td>112</td>
</tr>
<tr>
<td>females</td>
<td>368</td>
<td>1465</td>
<td>551</td>
</tr>
</tbody>
</table>

People with a positive Trichomonas result who were tested for HIV, by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total positive</th>
<th>Tested for HIV within 1-30 days</th>
<th>No test</th>
</tr>
</thead>
<tbody>
<tr>
<td>males</td>
<td>741</td>
<td>257</td>
<td>18</td>
</tr>
<tr>
<td>females</td>
<td>815</td>
<td>209</td>
<td>207</td>
</tr>
</tbody>
</table>

People with a syphilis test who were tested for HIV, by sex

<table>
<thead>
<tr>
<th>Sex</th>
<th>Total tests</th>
<th>Tested for HIV within 1-30 days</th>
<th>No HIV test</th>
</tr>
</thead>
<tbody>
<tr>
<td>males</td>
<td>11591</td>
<td>4833</td>
<td>3683</td>
</tr>
<tr>
<td>females</td>
<td>18988</td>
<td>5592</td>
<td>7706</td>
</tr>
</tbody>
</table>

People with a positive STI result who were tested for HIV, by age

<table>
<thead>
<tr>
<th>Age</th>
<th>Total tests</th>
<th>Tested for HIV within 1-30 days</th>
<th>No HIV test</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-19</td>
<td>3932</td>
<td>2330</td>
<td>772</td>
</tr>
<tr>
<td>20-24</td>
<td>3831</td>
<td>126</td>
<td>148</td>
</tr>
<tr>
<td>25-29</td>
<td>2332</td>
<td>126</td>
<td>148</td>
</tr>
<tr>
<td>30-34</td>
<td>2490</td>
<td>68</td>
<td>480</td>
</tr>
</tbody>
</table>

Symptomatic people who were tested for HIV, by sex

<table>
<thead>
<tr>
<th>HIV CONCORDANCE ANALYSIS (16-34 year olds)- 2011 and 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
</tr>
<tr>
<td>Symptomatic at consult</td>
</tr>
<tr>
<td>Tested for HIV within 30 days</td>
</tr>
<tr>
<td>Tested for HIV same day</td>
</tr>
</tbody>
</table>
Limitations

Two different data sources used (for symptomatic analysis)

Symptomatic information recorded in the comments field is not captured for STRIVE analysis

Summary

Only 34% of people with a positive STI had a HIV test within 30 days (inc. same day)

Of these the majority were on the same day as an initial STI test- but not when symptomatic patients were excluded (subset analysis)

Higher for chlamydia (27%) and gonorrhoea (28%) compared to trichomonas (20%)

Discussion

• We need to do much better
• Syphilis outbreak across remote communities
• HIV notifications
• Options for improving testing after a positive diagnosis
• Memo to all remote area staff
• Staff training
• Pathology form reminders
• PMS prompts
• POC machines prompts
• HIV testing and management training to all remote staff

Finally if HIV escalates across remote Australia

How will HIV treatment and care be delivered across remote communities? Where will the HIV specialist Doctors arrive from?

Who has the expertise to deal with these patients, who will be complex because of the underlying burden of disease already in this population such as CV and renal disease to name just two co-morbidities?

Where will HIV specialist nursing staff be accommodated and where will they arrive from?

Finally if HIV escalates across remote Australia

How will we address stigma and discrimination in remote communities to ensure PLWH are not run out of their own communities?

How will we protect patient’s confidentiality in these small settlements? Who pays for the $40k of medication for each patient for each year? How and who will conduct contact tracing?

Finally if HIV escalates across remote Australia

How does an outbreak response in small communities be mindful of confidentiality? How long will it take to even detect first cases and their contacts?

How will we ensure that people in remote communities living with HIV have stable environments even for storing their medications ie refrigeration?

Do we want to be in a situation like Canada is now, where the Federal Government fund several agencies millions of dollars a year to advocate, to prevent further transmissions and assist thousands of First Nations people to the best clinical care they can get both on and off reservations and where they are chasing their tails.

Where does this additional funding come from?