Understanding contraceptive choices among a cohort of HIV-positive women

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Conflict of Interest Disclosure

In the past 2 years I have been an employee of: The University of Toronto

In the past 2 years I have been a consultant for: N/A

In the past 2 years I have held investments in the following pharmaceutical organizations, medical devices companies or communications firms: N/A

In the past 2 years I have been a member of the Scientific advisory board for: N/A

In the past 2 years I have been a speaker for: N/A

In the past 2 years I have received research support (grants) from: CIHR

In the past 2 years I have received honoraria from: N/A

I agree to disclose approved and non-approved indications for medications in this presentation: YES

I agree to use generic names of medications in this presentation: YES
Contraception & HIV: Background

- Women >50% of world’s 33.3 million people living with HIV/AIDS
- Improvements in life expectancy with combined antiretroviral therapy (ART)
- Several contraceptive methods may interact with HIV infection or ART in clinically significant ways

Global Report 2010
Health Canada 2007
UNAIDS 2010
HIV & Contraception Interactions

Potential changes in contraceptive efficacy/ drug interactions

Impact on STI transmission and HIV acquisition

Possible impacts on progression of HIV itself
Objective

• To understand associations between baseline demographic & HIV-related data and contraceptive choices among a cohort of Canadian women participating in the CTN236: HPV Vaccine in HIV trial
Methods

• CTN236: HPV Vaccine in HIV trial
  – Multicenter, 27-month prospective, single arm open-label study
  – Designed to assess HPV vaccine effectiveness
• Data regarding contraceptive use abstracted from baseline/screening data for sexually active, pre-menopausal women
Methods

• Variables examined:
  – Demographics
  – Use and type of ART
  – CD4 count, viral load
  – Hepatitis B co-infection
  – Details on substance use
  – Sexual history

• Details on contraception use collated & descriptive summary compiled
Participants

377 women with screening demographic data available

- 209 women aged 15-57 included in analysis
- 168 women did not meet inclusion criteria

- 24 (6.3%) pre-menarchal
- 36 (9.5%) never had intercourse
- 29 (7.7%) post-menopausal
- 79 (21.0%) not sexually active in past year
Demographic information

• 87% reported a previous pregnancy
• 89% reported at least one method of current contraception
• 82.3% reported use of barrier protection (with or without other methods)
• 73% reported condom use most or all of the time
General patterns of contraception use

- Barrier: 53.1%
- Barrier+Other: 14.8%
- Barrier+Hormone: 14.8%
- Other: 8.1%
- None: 5.3%
- Hormone: 3.8%
Hormonal Contraceptive Use

- 16.7% (35/209) currently using hormonal contraception (HC)
- Majority (80%) in combination with barrier protection
- 75% (156/209) of women reported HC use in the past
# Demographic & sexual history

<table>
<thead>
<tr>
<th>Variables</th>
<th>None (n=11)</th>
<th>Barrier Only (n=111)</th>
<th>Hormone Only (n=7)</th>
<th>Barrier + Hormone (n=28)</th>
<th>Other (n=18)</th>
<th>Barrier + Other (n=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>39 (35-42)</td>
<td>37 (31-44)</td>
<td>32 (28-34)</td>
<td>31 (26-38)</td>
<td>37 (34-40)</td>
<td>39 (35-44)</td>
</tr>
<tr>
<td>Days since last sexual activity</td>
<td>30 (1-182)</td>
<td>8 (4-77)</td>
<td>7 (2-7)</td>
<td>7 (3-14)</td>
<td>12 (2-30)</td>
<td>7 (2-30)</td>
</tr>
<tr>
<td>At least 1 new partner in last 12 months</td>
<td>2 (18%)</td>
<td>30 (27%)</td>
<td>0</td>
<td>11 (39%)</td>
<td>1 (6%)</td>
<td>7 (21%)</td>
</tr>
<tr>
<td>Any STI ever</td>
<td>9 (82%)</td>
<td>83 (75%)</td>
<td>5 (71%)</td>
<td>20 (71%)</td>
<td>18 (100%)</td>
<td>32 (94%)</td>
</tr>
</tbody>
</table>
Patterns of Current HC use

- Depo Provera
- Combination Est/Prog pills
- Progestin only
- Nuvaring
- Ortho Evra Patch
Variations in contraceptive use by race/ethnicity

- None (n=11)
- Barrier only (n=111)
- Hormone only (n=7)
- Barrier + hormone (n=28)
- Other (n=18)
- Barrier + other (n=34)

Legend:
- White
- Black
- Aboriginal
- Other
HC use and smoking

Current smokers among HC users

- Smoker
- Non-smoker
## HIV-related factors

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<th>Barrier + Other n=34</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD4 at Screening (cells/mm³)</td>
<td>330 (250-687)</td>
<td>495 (366-640)</td>
<td>660 (372-820)</td>
<td>515 (353-735)</td>
<td>470 (320-630)</td>
<td>470 (340-571)</td>
</tr>
<tr>
<td>CD4 &lt;200</td>
<td>0</td>
<td>1 (1%)</td>
<td>0</td>
<td>0</td>
<td>1 (6%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>CD4 &gt;500</td>
<td>7 (64%)</td>
<td>48 (43%)</td>
<td>2 (29%)</td>
<td>10 (36%)</td>
<td>7 (39%)</td>
<td>21 (62%)</td>
</tr>
<tr>
<td>CD4 Nadir (cells/mm³)</td>
<td>170 (82-275)</td>
<td>244 (124-380)</td>
<td>360 (250-520)</td>
<td>340 (130-400)</td>
<td>250 (198-320)</td>
<td>220 (137-295)</td>
</tr>
</tbody>
</table>
Viral Load Suppression & Contraceptive Use

- None (n=11)
- Barrier only (n=111)
- Hormone only (n=7)
- Barrier + hormone (n=28)
- Other (n=18)
- Other (n=34)
## ART Status among cohort

<table>
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<th>Barrier + Other n=34</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever on ART</td>
<td>11 (100%)</td>
<td>97 (89%)</td>
<td>7 (100%)</td>
<td>24 (86%)</td>
<td>18 (100%)</td>
<td>29 (88%)</td>
</tr>
<tr>
<td>Current PI Based regimen</td>
<td>4 (36%)</td>
<td>42 (38%)</td>
<td>3 (43%)</td>
<td>8 (29%)</td>
<td>3 (17%)</td>
<td>12 (35%)</td>
</tr>
<tr>
<td>Current NNRTI Based regimen</td>
<td>1 (9%)</td>
<td>21 (19%)</td>
<td>2 (29%)</td>
<td>2 (7%)</td>
<td>5 (28%)</td>
<td>7 (21%)</td>
</tr>
</tbody>
</table>
Discussion

• Contraception use was high (89%)
• Barrier protection rates were moderately high (82.3%) with only 73% reporting consistent use
• Findings of concern:
  – Concomitant barrier contraception only 71.3% with other methods
  – High smoking rates among women on HC
  – Poor condom adherence among women on HC
    • 31.4% every time and 34.3% most of time
Limitations

• Small sample size within certain subgroups
• Limited to descriptive analysis only at this point
• A sub-analysis of a study on HPV vaccine, not specifically designed to address contraceptive use or changes over time
Conclusions

• Contraception is an important concern for HIV-positive women
• Co-morbid risks (ie smoking, other STIs) must be considered
• Counseling around contraceptive choices is crucial for HIV-positive women
Thank you!

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