Implementation of HIV Prevention Interventions in Rhode Island

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Wednesday, June 4th, 2014
New England HIV Implementation Science Symposium
Center for Interdisciplinary Research on AIDS (CIRA)
EVALUATING HIV TRANSMISSION NETWORKS: MOLECULAR EPIDEMIOLOGY
PCR Amplification of HIV-1 RNA

pol gene (PR codons 1-99, RT codons 1-400)
Analytical Sensitivity: >600 copies/mL viral load and viral populations accounting for >25% of the individuals
HIV-1 population (minor variants are not detected)
Phylogenetic analysis of HIV pol sequences

Identification of “clusters” (closely related sequences)

Clusters represent local, ongoing HIV transmission
The Miriam Hospital HIV/STD Clinic

• Started testing on 1/13/12
• Wed/Thurs/Fridays
• Walk-in
• Anonymous
• Free if uninsured
• Syphilis, Gonorrhea, Chlamydia (Lifespan)
• Free penicillin from the DOH (for syphilis)
• HIV and hepatitis C tests (DOH)
HIV and other sexually transmitted diseases (STDs) continue to be a major problem across the United States, including in Rhode Island. The goal of this site is to provide information about HIV and other STDs and suggest ways people may protect themselves. Many people who have HIV or other STDs don’t know it. If found early and treated, people can live long, healthy lives with HIV. Many other STDs can be cured with antibiotics. If untreated, HIV and other STDs can cause major health problems.
PRE-EXPOSURE PROPHYLAXIS (PREP) IMPLEMENTATION
Panel recommends approving Truvada to prevent HIV infection

By Saundra Young, CNN
updated 10:45 PM EDT, Thu May 10, 2012

A FDA advisory committee recommended on Thursday approving a new drug, Truvada, for pre-exposure prophylaxis.
<table>
<thead>
<tr>
<th>STUDY</th>
<th>LOCATION</th>
<th>POPULATION</th>
<th>DESIGN</th>
<th>OVERALL</th>
<th>DETECTABLE LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPrEX (Grant)</td>
<td>US, Thailand, South Africa, Brazil, Ecuador, Peru</td>
<td>2,499 MSM/transgender women</td>
<td>FTC/TDF vs. placebo</td>
<td>44%</td>
<td></td>
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<tr>
<td>Partners PrEP (Baeten)</td>
<td>Kenya, Uganda</td>
<td>4,747 sero-discordant MSF/FSM</td>
<td>TDF, FTC/TDF, or placebo</td>
<td>67% TDF; 75% FTC/TDF</td>
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<tr>
<td>TDF2 (Van Damme)</td>
<td>Botswana</td>
<td>1,219 MSF/FSM</td>
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<tr>
<td>FEM-PrEP (Thigpen)</td>
<td>Kenya, South Africa, Tanzania</td>
<td>2,120 women</td>
<td>FTC/TDF vs. placebo</td>
<td>NSS</td>
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<td>VOICE (Marrazzo)</td>
<td>South Africa, Uganda, Zimbabwe</td>
<td>3,019 women</td>
<td>TDF, FTC/TDF, or placebo</td>
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<td>Bangkok Tenofovir (Choopanya)</td>
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<td>2,411 IDUs</td>
<td>TDF vs. placebo</td>
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NSS=Not statistically significant; NP=Not performed; TDF=Tenofovir; FTC=Emtricitabine
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NSS=Not statistically significant; NP=Not performed; TDF=Tenofovir; FTC=Emtricitabine
HIV pre-exposure prophylaxis in men who have sex with men and transgender women: a secondary analysis of a phase 3 randomised controlled efficacy trial

Susan P Buchbinder, David V Glidden, Albert Y Liu, Vanessa McMahan, Juan V Guanira, Kenneth H Mayer, Pedro Golcochea, Robert M Grant

Findings Patients were enrolled between July 10, 2007, and Dec 17, 2009, and were followed up until Nov 21, 2010. Of the 2499 MSM and transgender women in the iPrEx trial, 1251 were assigned to pre-exposure prophylaxis and 1248 to placebo. 83 of 1248 patients in the placebo group became infected with HIV during follow-up. Participants reporting receptive anal intercourse without a condom seroconverted significantly more often than those reporting no anal sex without a condom (adjusted hazard ratio [AHR] 5.11, 95% CI 1.55–16.79). The overall PAF for MSM and transgender women reporting receptive anal intercourse without a condom was 64% (prevalence 60%). Most of this risk came from receptive anal intercourse without a condom with partners with unknown serostatus (PAF 53%, prevalence 54%, AHR 4.76, 95% CI 1.44–15.71); by contrast, the PAF for receptive anal intercourse without a condom with an HIV-positive partner was 1% (prevalence 1%, AHR 7.11, 95% CI 0.70–72.75). The overall NNT per year for the cohort was 62 (95% CI 44–147). NNTs were lowest for MSM and transgender women self-reporting receptive anal intercourse without a condom (NNT 36), cocaine use (12), or a sexually transmitted infection (41). Having one partner and insertive anal sex without a condom had the highest NNTs (100 and 77, respectively).

Interpretation Pre-exposure prophylaxis may be most effective at a population level if targeted toward MSM and transgender women who report receptive anal intercourse without a condom, even if they perceive their partners to be HIV negative. Substance use history and testing for STIs should also inform individual decisions to start pre-exposure prophylaxis. Consideration of the PAF and NNT can aid in discussion of the benefits and risks of pre-exposure prophylaxis with MSM and transgender women.

Overall NNT: **62**
MSM RAI without a condom: **36**
Condom effectiveness in reducing heterosexual HIV transmission (Review)


Authors' conclusions
This review indicates that consistent use of condoms results in 80% reduction in HIV incidence. Consistent use is defined as using a condom for all acts of penetrative vaginal intercourse. Because the studies used in this review did not report on the “correctness” of use, namely whether condoms were used correctly and perfectly for each and every act of intercourse, effectiveness and not efficacy is estimated. Also, this estimate refers in general to the male condom and not specifically to the latex condom, since studies also tended not to specify the type of condom that was used. Thus, condom effectiveness is similar to, although lower than, that for contraception.

“Consistent use of condoms results in 80% reduction in HIV incidence.”
Pre-exposure Prophylaxis Implementation Program
The Miriam Hospital Immunology Center

502
Total Number Testing for HIV/STDs

161 (32% of Total)
MSM Testing for HIV/STDs

100 (62% of MSM)
Total MSM Counseled about PrEP

50 (31%)
Total MSM Interested in PrEP

17 (10.5%)
PrEP Appointments Scheduled

5 (3.1%)
On PrEP

- Concerned about side effects/drug interaction
- At no/low perceived risk
- Need to think about it more

- Did not respond to follow-up
- Trying to get insurance

- Missed their appointments
- Made their appointments but were rescheduled to follow-up with insurance

- 14 additional patients initiated PrEP from other referral sources.

Reporting period: 10/30/2013-02/28/2014
HIV Exposure Hotline

If you have been exposed to HIV within the last 72 hours, it is not too late to get help that will possibly prevent a deadly HIV infection. With recent drug advances, an HIV infection can be stopped with PEP medications if doses start within the critical 72 hour time window. Call a doctor or an emergency room now to get help as soon as possible.

PL-AIDS has a toll free number that will connect you to an HIV Doctor now: 1-401-460-AIDS(2437)
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(401) 793-4859