CROI Update 2017: Prevention

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PrEP: Vaginal Microbiota & Topical Tenofovir

- Women with bacterial vaginosis-type microbiota had lower levels of tenofovir
  - Plasma & vaginal fluid after 6 daily doses
  - Plasma & cervical fluid 2 hours after application

Hillier S, et al. Impact of vaginal microbiota on genital tissue and plasma concentrations of tenofovir. [86LB]
PrEP: Vaginal Microbiota & Oral Tenofovir

- BV (by multiple measures) had no impact on the efficacy of oral PrEP

Heffron R, et al. Daily oral PrEP is effective among women with abnormal vaginal microbiota. [85]
Pharmacy-Based PrEP: One-Step PrEP™

- Kelley-Ross Pharmacy (first floor of Polyclinic)
- Year 1: 373 enrolled (98% men, 84% MSM, 15% had PCP)

Pharmacists as HIV Prevention Partners

- Survey in Iowa & Nebraska
  - N=140 (12% response)

- HIV Testing in 32 pharmacies
  - Evenings & weekends
  - 0.8% positivity (25/3221)
  - $4.3k per case detected vs. $14.9k in community-based

Broekhuis J, et al. Midwest pharmacists’ knowledge of & willingness to provide PrEP. [963]
Collins BC, et al. Assessing the efficacy and feasibility of a retail pharmacy-based HIV testing program. [962]
Challenges operationalizing PrEP for Young Black MSM in South, even in the Context of a Study

- Prospective observational cohort of young black MSM, age 16-29 (N=184)
- Assured access to PrEP, 63% interested, 28% on it at time of analysis
- 95.3 p-y of follow-up: 5 seroconversions = 5.3% incidence

Median time to PrEP initiation visit=16 weeks
Median time to PrEP medication start=4 weeks

Rolle CPM, et al. Challenges of translating PrEP interest into uptake among young black MSM in Atlanta. [90]
Racial/Ethnic Disparities in PrEP

- San Francisco Department of Public Health Primary Care Clinics
- March 2015 – April 2016 (N = 219)
- Differences due to early discontinuation or later uptake?

**Median Days on PrEP by Race/Ethnicity**

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Median Days on PrEP</th>
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<tbody>
<tr>
<td>White</td>
<td>347</td>
</tr>
<tr>
<td>Asian</td>
<td>279</td>
</tr>
<tr>
<td>Black</td>
<td>116</td>
</tr>
<tr>
<td>Latino</td>
<td>183</td>
</tr>
<tr>
<td>Other</td>
<td>211</td>
</tr>
</tbody>
</table>

* p<0.01 (compared with White)

**Median Days on PrEP by Age**

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Median Days on PrEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>122</td>
</tr>
<tr>
<td>25-29</td>
<td>203</td>
</tr>
<tr>
<td>30-39</td>
<td>202</td>
</tr>
<tr>
<td>40-49</td>
<td>334</td>
</tr>
<tr>
<td>50+</td>
<td>223</td>
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</tbody>
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Text Messaging May Improve Retention in PrEP

- Public Health – Seattle & King County STD Clinic
- Opt-in text message program managed by PrEP coordinators
- Automated monthly check-in messages, automated appointment reminders, and open bi-directional texting

324 patients offered enrollment in SMS (Sept 2015 – Dec 2016)

- 251 (77.5%) Opted-In to SMS Program
  - 218 Filled PrEP Prescription
  - 166 (76.2%) Retained in PrEP Clinic

- 73 (22.5%) Did not Opt-In to SMS Program
  - 57 Filled PrEP Prescription
  - 30 (52.6%) Retained in PrEP Clinic

P<0.001

SMS program significantly associated with PrEP clinic retention
(aRR = 1.43; 95% confidence interval = 1.11–1.84)*

*From log binomial regression model adjusting for age, race/ethnicity and gender

Khosropour C, et al. Text messaging is associated with improved retention in a clinic-based PrEP program. [964]
New Forms of PrEP Delivery

Biodegradable implant
- Evaluated in rabbits (n=6)
- Released 50% faster than intended (17-21 days)

Transcutaneous refillable implant
- Evaluated in rhesus macaques (n=3)
- Sustained delivery for 30 days, TFV-DP reached preventative concentrations in PBMCs and rectal

STI PEP for Men on PrEP

- RCT in open label extension of IPERGAY
- Doxy 200mg x1 ~24h after sex (≤72h)
- Targeting CT & syphilis
- Increased time to first STI
- No risk compensation
- 7% discontinuation
- Median 7 pills/month (IQR: 3-15)