KEY STRATEGIES FOR OVERCOMING BARRIERS TO HCV ELIMINATION AMONG MEN WHO HAVE SEX WITH MEN

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SEXUAL HCV TRANSMISSION AMONG MSM WITH HIV INFECTION IN NEW YORK CITY

- 2005-2010: 74 HIV+ MSM with recently acquired HCV infection and no IDU history
  - Phylogenetic analyses identified 5 clusters of closely related HCV variants among 26 of 47 men with GT 1a HCV—suggesting networks of transmission
- Matched case-control study showed high-risk sexual behavior most likely mode of transmission

<table>
<thead>
<tr>
<th>Factor</th>
<th>Univariate OR (95% CI)</th>
<th>P Value</th>
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</thead>
<tbody>
<tr>
<td>Receptive anal intercourse, no condom, with ejaculation*</td>
<td>24.87 (3.18-194.55)</td>
<td>.002</td>
</tr>
<tr>
<td>Insertive anal intercourse, no condom, no ejaculation</td>
<td>8.13 (1.76-37.55)</td>
<td>.007</td>
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<tr>
<td>Insertive anal intercourse, no condom, with ejaculation</td>
<td>2.62 (1.00-6.87)</td>
<td>.05</td>
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<tr>
<td>Receptive fisting</td>
<td>10.08 (2.03-50.02)</td>
<td>.005</td>
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<tr>
<td>Insertive fisting</td>
<td>7.90 (1.96-31.84)</td>
<td>.004</td>
</tr>
<tr>
<td>Use of sex toys</td>
<td>4.38 (1.35-14.26)</td>
<td>.01</td>
</tr>
<tr>
<td>Group sex</td>
<td>19.28 (2.51-148.23)</td>
<td>.005</td>
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<tr>
<td>Previous syphilis</td>
<td>8.80 (1.88-41.05)</td>
<td>.006</td>
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</tbody>
</table>

*Adjusted OR in multivariate analysis: 23.00 (95% CI: 2.17-243.84; P = .009).

CASCADE COLLABORATION IN EUROCOORD: HCV INCIDENCE INCREASING AMONG HIV-INFECTED MSM

Follow-up Time Calculations (shading = 95% CI):

- Method 1
- Method 2:

Method 1: Follow-up began moment MSM considered at risk.
Method 2: Follow-up began from first HCV negative test after becoming at risk (ie, left truncation). Poisson regression to test overall effect of calendar year on HCV incidence 1990-2014 in both methods.

• “Annual HCV testing is recommended for sexually active HIV-infected adolescent and adult MSM. Depending on the presence of high-risk sexual or drug use practices, more frequent testing may be warranted.”

• “All MSM should be counseled about the risk of sexual HCV transmission with high-risk sexual and drug use practices, and educated about measures to prevent HCV infection or transmission.”
• Sex practices that can cause trauma to rectal mucosal tissue and rectal bleeding
  – Eg, receptive anal intercourse without a condom, receptive fisting
• Sexualized drug use (eg, ChemSex, Party and Play or PNP)
  – Eg, crystal methamphetamine, mephedrone, gamma-hydroxybutyrate, phosphodiesterase type 5 inhibitors before or during sex
• Presence of ulcerative and rectal sexually transmitted infections including syphilis, lymphogranuloma venereum, and genital herpes
PATIENT CASE: HIV-NEGATIVE MSM RECEIVING PREP ACQUIRES HCV INFECTION

• 22-yr-old MSM has been receiving HIV PrEP for 2 yrs
• HCV screening at PrEP initiation and at annual screen 1 yr later was negative
• Second annual HCV screening test positive, reflex RNA test also positive
• Reports condomless insertive and receptive anal sex since initiating PrEP
• 2013-2018: 15 likely sexually-acquired HCV infections among 14 MSM receiving PrEP
  – 87% asymptomatic; all detected by routine ALT or HCV monitoring
  – One half reported increasing sex partners and drug use after starting PrEP; 5 reported methamphetamine injection
  – 3 cleared spontaneously within 12 wks (including 1 reinfection); 8 treated and cured; 1 treated with unknown outcome; 3 currently undergoing treatment

AMSTERDAM PREP PROJECT (AMPREP): PREP IN MSM AND TRANSGENDER PATIENTS

- **AMPrEP**
  - MSM and transgender participants chose daily or event-driven PrEP
- **376 individuals initiated PrEP**
  - 73% selected daily PrEP option
- **HCV prevalence before starting PrEP was higher than expected:** 4.8% (95% CI: 2.9-7.5)
  - 67% were unaware they had HCV

- **Median follow-up (2015-2017):** 1.76 PY (IQR 1.57-1.98)
- **12 new HCV infections**
  - 6 primary; 6 reinfection
- **Overall HCV incidence rate:** 1.9/100 PY (95% CI: 1.1-3.4)
  - Primary infections: 1.0/100 PY (95% CI: 0.5-2.2)
  - Reinfections: 25.5/100 PY (95% CI: 11.5-56.8)
“HCV testing at initiation of PrEP and annually thereafter while on PrEP is recommended in HIV-negative MSM. More frequent testing may be needed if patients engage in high-risk sexual practices or drug use.”

Provide HCV risk reduction counseling at PrEP initiation and during time on PrEP
For more case-based discussion on HCV Elimination Among MSM, view an online, interactive, CME-certified video module featuring HIV experts Daniel S. Fierer, MD, W. David Hardy, MD, and Mark S. Sulkowski, MD. 

https://www.clinicaloptions.com/hepatitis/programs/hcv-elimination-2018