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Changes in sexual behavior and STI diagnoses among MSM using PrEP in Seattle, WA

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## BACKGROUND

- PrEP is increasingly used for HIV prevention among MSM.
- In non-research settings, changes in sexual behavior and STI incidence among MSM after PrEP initiation have not been well studied.

Objective: To examine changes in sexual behavior and STI incidence among MSM after PrEP initiation.

## METHODS

### STUDY POPULATION

- The municipal STD clinic in Seattle, WA provides PrEP to patients at high risk for HIV (patients who meet one of the following criteria):
  - Sexual relationship with HIV+ partner who is not on ART, or not virally suppressed, or within 6 months of ART initiation.
  - MSM or transgender person who has sex with men and has diagnosis of rectal GC or early syphilis, or methamphetamine or popper use, or sex work, in last 12 months.
  - PrEP patients attend an initial evaluation (baseline) visit, and return quarterly for clinical follow-up and monitoring.
  - MSM attending the clinic, who initiated PrEP and completed behavioral questionnaires, are included in this analysis.

### DATA COLLECTION

- Data were collected from patients initiating PrEP between September 2014 and June 2016.
- Data on sexual behavior during prior 30 days were collected during quarterly PrEP clinic visits, via computer-assisted self interview (CASI).
- STI diagnosis data were obtained from the Washington State Public Health Issue Management System (PHIMS).

### OUTCOMES:

- STI diagnoses: chlamydia (CT), gonorrhea (GC), early syphilis
- Number male sexual partners
- Sexual positioning (top/bottom) and condom use with HIV+, HIV-, unknown-status partners

## RESULTS

- 108* completed at least one follow-up visit (Mean follow-up time: 8.3 mos. SD: 4.9 mos.)
- 76 completed both the baseline and the 3-month visits.

## SEXUALLY TRANSMITTED INFECTIONS

### SEXUALLY TRANSMITTED INFECTIONS

<p>| Proportion of MSM Diagnosed with STIs before and after PrEP Initiation |
|---|---|---|</p>
<table>
<thead>
<tr>
<th>STI</th>
<th>12 Months Prior to PrEP Initiation</th>
<th>At Baseline (±7 days)</th>
<th>During PrEP Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>All STIs</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>7</td>
<td>3.5</td>
<td>16</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>11</td>
<td>10.2</td>
<td>22</td>
</tr>
<tr>
<td>Syphilis (1st-3rd Latent)</td>
<td>11</td>
<td>10.2</td>
<td>13</td>
</tr>
<tr>
<td>Rectal</td>
<td>10</td>
<td>9.3</td>
<td>15</td>
</tr>
<tr>
<td>Syphilis</td>
<td>3</td>
<td>2.9</td>
<td>1</td>
</tr>
</tbody>
</table>

## DISCUSSION

### SUMMARY

- MSM reported decreased condom use during receptive anal intercourse with HIV-seropositive partners in the first year after initiating PrEP.
- Incidence of symptomatic STIs was higher among PrEP patients.

### LIMITATIONS

- Lack of an appropriate comparison group may lead to difficulty drawing conclusions about increased STI risk.
- Ascertainment bias may result from increased screening in the period after PrEP initiation, although not for symptomatic STIs.

### CONCLUSIONS

- Some sexual behaviors appear to change following PrEP initiation, which in turn may influence STI acquisition.