Taking a history of sexual health: Opening the door to HIV/STI care and prevention

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Goals

- Describe how to take a sexual history that is inclusive of all sexual orientations and gender identities

- Identify recommended screening and prevention methods for HIV and STIs for MSM and transgender women
I am a

A. Nurse (13%)
B. Nurse practitioner (0%)
C. Physician’s assistant (0%)
D. Physician (0%)
E. Social worker (13%)
F. Non-clinical staff member (9%)
G. Other (26%)
Part 1: The Sexual History
Sexual Risk Assessment

The Centers for Disease Control and Prevention (CDC) has developed a simple categorization of sexual history questions that may help providers, or other members of the clinical care team, remember which topics to cover. These are called the Five P’s:

- **Partners**
- **Practices**
- **Past History of STDs**
- **Protection from STDs**
- **Pregnancy Plans**

The following risk assessment questions are organized according to these categories.

**PARTNERS**

These questions may already have been covered during the first three screening questions (see page 6) of the sexual history. They are listed again here but do not need to be repeated.

- Are you having sex with women only, men only, or both? (If both, ask the next question twice - once for male partners, and once for female partners)
- How many sexual partners have you had in the past year?

Additional questions about partners:

- Have you ever had sex with someone you didn’t know or just met?
- Have you ever traveled internationally, to places such as Thailand or Africa, to have casual sex?
- Have you ever experienced physical, sexual, or emotional violence from someone you were involved with?

**PRACTICES AND PROTECTION FROM STDs**

Some patients respond better to open-ended questions about their sexual practices, and some prefer

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2. This risk assessment has been adapted from: Centers for Disease Control and Prevention. A guide to taking a sexual history. Available at: [http://www.cdc.gov/nchpad/](http://www.cdc.gov/nchpad/)

Approach to the sexual history

- The core history for LGBT patients is the same as for all patients.

- Use inclusive and neutral language:
  - Instead of: “Do you have a wife/husband or boy/girlfriend?”
  - Ask: “Do you have a partner?” or “Are you in a relationship?” “What do you call your partner?”

- For all patients:
  - Make it routine
  - Make no assumptions
  - Assure confidentiality
Detailed sexual health assessment

CDC has developed a simple categorization of sexual history questions to help focus on key issues:
http://www.cdc.gov/std/treatment/SexualHistory.pdf
Partner violence, payment for sex

- Have you ever experienced physical or emotional violence with someone you were involved with?

- Have you ever had sex in exchange for drugs, money, shelter, food, or other necessities?
Talking to trans patients about sex

View video at http://www.lgbthealtheducation.org/training/videos/
Algorithm for taking sexual histories

Set the Stage
- Bring up the sexual history as part of the overall history
- Explain that you ask these questions of all patients
- Ensure confidentiality

Begin with Three Screening Questions
1. Have you been sexually active in the last year?
2. Do you have sex with men, women, or both?
3. How many people have you had sex with in the last year?

Multiple Partners, New Partner
Long-term Monogamous Partner
Not Sexually Active
Multiple partners, new partner

Ask about:

- STD/HIV protection
- Partners
- Substance use
- History of STDs
- Trauma/violence
- Pregnancy plans/protection
- Sexual function and satisfaction
- Other concerns

Follow up as appropriate
(e.g., STD and HIV testing, counseling and education, referrals)
Long-term monogamous partner

Ask about:
- Pregnancy plans/protection
- Trauma/violence
- Sexual function and satisfaction
- Other concerns

Follow up as appropriate
(e.g., STD and HIV testing, counseling and education, referrals)
Not sexually active

Ask about:
• Past partners (if patient is new)
• Any questions or concerns

Follow up as appropriate
(e.g., STD and HIV testing, counseling and education, referrals)
Part 2: HIV and STIs
MSM account for 2% of the male population but

- 75% of new syphilis infections
- 63% of new HIV infections

In addition:

- Antibiotic-resistant gonorrhea is more common among MSM than MSW.
- Outbreaks of HCV have been reported in HIV-infected MSM.

1. www.cdc.gov
3. CDC. Sexual transmission of hepatitis C virus among HIV-infected men who have sex with men – New York City, 20015-2010. MMWR. 2011;60(28):945.
Syphilis predicts HIV acquisition in MSM and transgender women.

HIV incidence, per 100 person years

- No syphilis: 2.8
- Syphilis: 8

MSM face an increased risk of anal cancer.

Cancer incidence, cases per 100,000

Screening
Which screening tests are recommended by the CDC for sexually active MSM?

A. HIV viral load, treponemal antibody, GC/Chlamydia NAAT

B. HIV viral load, HSV antibody, GC/Chlamydia NAAT

C. HIV antibody, treponemal antibody, GC/Chlamydia NAAT

D. HIV antibody, HSV antibody, GC/Chlamydia NAAT
Yearly STI screening for MSM

- HIV serology
- Syphilis serology
- NAAT for *Chlamydia trachomatis* and *Neisseria gonorrhea*
  - In the urine, rectum, and pharynx, depending on the patient’s sexual practices (though pharyngeal testing for *C. trachomatis* is not recommended)
  - Regardless of history of condom use

* Test every 3-6 months in those at highest risk; less often in those at lower risk (my opinion)

What about anal Pap smears?

**PROS**

- Anal cancer is HPV-associated and exhibits the same biology as cervical cancer
- Rates of anal cancer appears to be significantly increased in MSM, especially those with HIV
- Now recommended for all HIV-infected MSM

**CONS**

- As of yet, no randomized trials assessing the benefits of screening have been published
- Whom to screen, and how often, is unclear

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How to perform an anal Pap smear

- Place the patient in the lateral recumbent position.
- Insert a Dacron cotton swab 5-6 cm into the anus.
- Apply lateral pressure and, while withdrawing the swab, rotate it.
- Submit the specimen as you would a cervical Pap smear.

2. www.hivandhepatitis.com
MSM status is an indication for vaccination against which disease?

A. Hepatitis A  
B. Influenza  
C. Pneumococcal conjugate (PCV-13)  
D. Human papillomavirus
Vaccines recommended for MSM

- Hepatitis A
- Hepatitis B
- Quadrivalent HPV
- Meningococcal?
A case

- A 36 year-old man presents to establish care
- Hyperlipidemia, shoulder surgery
- Business executive; no smoking, occasional alcohol, no recreational drugs
- Married to and sexually active with a man who has HIV; do not use condoms for sex
- Recent HIV test negative
Which intervention most effectively prevents HIV transmission?

A. Condoms
B. Treating HIV infected individuals with antiretroviral therapy ("treatment as prevention")
C. Pre-exposure prophylaxis
D. Behavioral interventions
Antiretroviral-based HIV prevention

TasP
PEP
PrEP
How well do HIV prevention interventions work?

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Relative Risk Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment as prevention</td>
<td>96</td>
</tr>
<tr>
<td>Post-exposure prophylaxis</td>
<td>81</td>
</tr>
<tr>
<td>Condoms</td>
<td>70</td>
</tr>
<tr>
<td>Pre-exposure prophylaxis</td>
<td>44</td>
</tr>
</tbody>
</table>
How effective is TasP?

- **Swiss Statement:** People who are virologically suppressed are not sexually infectious.

- **HPTN 052:** TasP reduced HIV acquisition by 96% (1)

- **Opposites Attract:** 0 HIV transmissions in 152 MSM couples despite ~6,000 episodes of condomless anal sex (2)

Sexually-active MSM should know when and how to access PEP.

- 2 key scenarios:
  - Unprotected sex with an HIV-infected person
  - Anal sex with an MSM of unknown HIV status
- Must be started within 72 hours of exposure
- 28 days of antiretrovirals (usually tenofovir-emtricitabine + raltegravir)
- Likely reduces the risk of HIV by at least 81%
**PrEP: A game changer for HIV prevention?**

- PrEP is indicated for individuals at high risk of HIV infection.
- Once daily, oral tenofovir-emtricitabine is the only medication FDA-approved for PrEP.
- Concerns center on adherence, implementation, and cost.
I have prescribed PrEP for HIV prevention.

A. Yes (21%)
B. No (21%)
C. No answer (59%)
Several RCTs have shown a reduction in HIV transmission with oral PrEP.

iPREX (N Engl J Med 2010)
- **Population:** 2,499 MSM and transgender women in 6 countries
- **Intervention:** Oral tenofovir-emtricitabine
- **Results:** Reduced HIV acquisition by 44%

- **Population:** 4,747 serodiscordant couples in Kenya and Uganda
- **Intervention:** Oral tenofovir-emtricitabine or tenofovir alone
- **Results:** Reduced HIV acquisition by 67-75%

- **Population:** 1,219 heterosexual men and women in Botswana
- **Intervention:** Oral tenofovir-emtricitabine
- **Results:** Reduced HIV acquisition by 62%
2 RCTs have not shown a benefit to oral PrEP.

- **Population:** 2,120 women in sub-Saharan Africa
- **Intervention:** Oral tenofovir-emtricitabine
- **Results:** No HIV risk reduction with PrEP

- **Population:** 5,029 women in sub-Saharan Africa
- **Intervention:** Oral tenofovir-emtricitabine, oral/vaginal tenofovir
- **Results:** No HIV risk reduction with PrEP
Adherence is the Achilles heel of PrEP.

<table>
<thead>
<tr>
<th>TRIAL</th>
<th>OVERALL HIV RISK REDUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPRESX</td>
<td>44%</td>
</tr>
<tr>
<td>Partners PrEP</td>
<td>67% (tenofovir)</td>
</tr>
<tr>
<td></td>
<td>75% (tenofovir-emtricitabine)</td>
</tr>
</tbody>
</table>

In VOICE, fewer than 50% of participants ever took PrEP.

PrEP is safe.

- Self-limited nausea may occur initially.
- Kidney injury occurs rarely.
- Tenofovir causes a small decrease in bone mineral density, of unknown significance.
- Antiretroviral resistance is rare, occurring mostly in people with unidentified acute HIV upon PrEP initiation.
In the real world, PrEP works at least as well as in RCTs.

**PROUD (CROI 2015)**
- **Population:** 545 high-risk MSM in the United Kingdom
- **Intervention:** Immediate or deferred oral tenofovir-emtricitabine
- **Results:** Reduced HIV acquisition by 86%

**U.S. Demo Project (IAS 2015)**
- **Population:** 557 MSM and transgender women
- **Intervention:** Oral tenofovir-emtricitabine
- **Results:** HIV incidence 0.43 per 100 person-years

**TDF2 OLE (IAS 2015)**
- **Population:** 229 men and women in Botswana
- **Intervention:** Oral tenofovir-emtricitabine
- **Results:** 0 HIV infections; 5-6 expected
More lessons from open-label studies.

- Concerns about risk compensation have not been borne out.
- MSM at highest risk preferentially access and adhere to PrEP.
  - **PrEP Brasil (IAS 2015):** RR 1.65 for PrEP uptake with a history of multiple condomless anal sex partners
  - **ATN 110 (IAS 2015):** Participants reporting condomless sex had higher tenofovir blood levels
Who is “high risk?”

<table>
<thead>
<tr>
<th>Men Who Have Sex with Men</th>
<th>Heterosexual Women and Men</th>
<th>Injection Drug Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-positive sexual partner</td>
<td>HIV-positive sexual partner</td>
<td>HIV-positive injecting partner</td>
</tr>
<tr>
<td>Recent bacterial STI</td>
<td>Recent bacterial STI</td>
<td>Sharing injection equipment</td>
</tr>
<tr>
<td>High number of sex partners</td>
<td>High number of sex partners</td>
<td>Recent drug treatment (but currently injecting)</td>
</tr>
<tr>
<td>History of inconsistent or no condom use</td>
<td>History of inconsistent or no condom use</td>
<td></td>
</tr>
<tr>
<td>Commercial sex work</td>
<td>Commercial sex work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In high-prevalence area or network</td>
<td></td>
</tr>
</tbody>
</table>
Who is “high risk?”

- Adult man
- Without acute or established HIV infection
- Any male sex partners in past 6 months
- Not in a monogamous partnership with a recently tested, HIV-negative man

**AND at least one of the following**

- Any anal sex without condoms (receptive or insertive) in past 6 months
- Any STI diagnosed or reported in past 6 months
- Is in an ongoing sexual relationship with an HIV-positive male partner

Which tests must be sent before starting PrEP?

A. HIV antibody, hepatitis B surface antibody, urinalysis

B. HIV antibody, hepatitis B surface antigen, serum creatinine

C. HIV RNA, hepatitis B surface antibody, urinalysis

D. HIV RNA, hepatitis B surface antigen, serum creatinine
2014 PrEP prescribing guidelines

1. **Determine eligibility:** Document negative HIV test and high risk of infection, confirm creatinine clearance > 60 mL/min

2. **Assess for conditions of concern:** HBsAg for everyone, pregnancy test for fertile women

3. **Prescribe:** Tenofovir-emtricitabine, 1 tablet by mouth daily, ≤ 90-day supply

4. **Monitor:** Creatinine, HIV status, pregnancy status every 3 months; STI screening every 6 months; counsel regarding risk reduction

Uncertainties about PrEP

- Time taking PrEP until one is maximally protected against HIV?
- Efficacy of less-than-daily administration?
- Benefits if one’s HIV-infected partner is virologically suppressed on ART?
Overcoming barriers to PrEP

Injections of long-acting PrEP (e.g., rilpivirine, cabotegravir)

Rectal microbicides

PrEP-impregnated vaginal rings (e.g., dapivirine)

Episodic PrEP

www.mtnstopshiv.org/studies
If you were seeing the patient in our case, would you prescribe PrEP?

A. Yes
B. No
With regard to PrEP, I am most concerned about:

A. Cost (7%)
B. Efficacy (0%)
C. Medication adherence (11%)
D. Side effects (4%)
E. Development of HIV drug resistance (4%)
F. Something else (4%)
Case follow-up

- Our patient’s husband had an undetectable viral load on ART.
- We discussed the uncertain benefits of PrEP in this context.
- The patient elected to start PrEP and remains HIV negative.
Goals

- Describe how to take a sexual history that is inclusive of all sexual orientations and gender identities

- Identify recommended screening and prevention methods for HIV and STIs for MSM and transgender women
Thank you

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