PrEP 101 for Pediatricians

The Virtual PrEP Program at Stanford Children's Health

Based on the SFPDH Academic Detailing project by Alyson Decker, NP, MPH, and Darpun Sachdev, MD, MPH
Please complete this brief pre-survey:

https://stanforduniversity.qualtrics.com/jfe/form/SV_5BwRBhXl6ur4UND
Welcome to PrEP 101 for pediatricians!

Geoffrey Hart-Cooper, MD
Medical Director, Virtual PrEP Program
Pediatrician
HIV Prevention Specialist, San Francisco Department of Public Health

Megen Vo, MD
Associate Medical Director, Virtual PrEP Program
Assistant Professor, Division of Adolescent Medicine

Stanford Children's Health
Overview

Epidemiology of HIV and youth
What is PrEP?
Who can benefit from PrEP?
How to prescribe and monitor PrEP
Common barriers (and solutions) for youth
The Virtual PrEP Program
What is the lifetime risk of acquiring HIV? 1 in ....?

- Men who have sex with men (MSM)?
- Heterosexual men and women?
Lifetime Risk of HIV Diagnosis by Transmission Group

- **MSM (Men who have sex with men):** 1 in 6
- **Women Who Inject Drugs:** 1 in 23
- **Men Who Inject Drugs:** 1 in 36
- **Heterosexual Women:** 1 in 241
- **Heterosexual Men:** 1 in 473

Source: Centers for Disease Control and Prevention

---

Lifetime Risk of HIV Diagnosis among MSM by Race/Ethnicity

- **African American MSM:** 1 in 2
- **Hispanic MSM:** 1 in 4
- **White MSM:** 1 in 11

Source: Centers for Disease Control and Prevention

Many new HIV diagnoses are among youth

<table>
<thead>
<tr>
<th>Location</th>
<th>% of new HIV diagnoses younger than 30yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alameda</td>
<td>42%</td>
</tr>
<tr>
<td>Santa Clara</td>
<td>38%</td>
</tr>
<tr>
<td>San Mateo</td>
<td>18%</td>
</tr>
<tr>
<td>Nationally</td>
<td>41%</td>
</tr>
</tbody>
</table>

Number of Diagnoses of HIV Infection in the United States, 2017

Pediatricians prevent HIV

Identify patients at high risk
Safer sex counseling
Post-exposure prophylaxis (PEP)
Pre-exposure prophylaxis (PrEP)
PrEP can prevent HIV

Daily pill (tenofovir disoproxil/emtricitabine or Truvada)

99% reduction in risk of sexually acquiring HIV

Used in combination with safer sex practices such as condoms
  • Similar to using contraception and condoms
PrEP was recently FDA approved for youth

FDA approved for 35+ kg (no age restriction) in 2018
  - Prior FDA approval was for ages 18 and over

Nationally, youth <25 years of age account for 21% of new HIV infections, but only 13% of PrEP prescriptions
  - Limited knowledge among pediatric providers

Expensive, but covered through insurance and payment assistance programs

Follow-up needed
  - Office visits for adherence monitoring every two to three months
  - Labs (HIV, STI, creatinine) every three months

Why aren’t more youth on PrEP?

**Patient**

Hesitant to disclose sexual behavior and/or orientation
Confidentiality concerns
Not yet transitioned from pediatrician to adult primary care
More transient: moving, going to college, etc
Limited knowledge about navigating payment assistance programs
Adherence challenges

**Provider**

General challenges with taking a sexual history
Limited knowledge of PrEP
Limited knowledge of insurance navigation, payment assistance programs
Reluctant to modify practice
PrEP candidates

“Are you a person who...”

- Worries about your HIV risk and wants to take control of your sexual health?
- Has condomless sex with a partner of unknown HIV status?
- Recently had a sexually transmitted infection (such as gonorrhea or syphilis)?
- Has a sex partner(s) who is living with HIV, or you don’t know their HIV status?
- Exchanges sex for money, food, housing and/or drugs?
- Injects drugs?
- Has an anticipated PrEP need (such as the situations above) in the near future?

Source: https://www.pleaseprepme.org/patient-resources
Case

Jimmy C is an 18-year-old male who is here for a well teen check.

How do you ask him about his sexual health?
Jimmy, can I ask you more about...?

- **Partners:** Reports 5 male partners in the last 6 months
- **Receptive or Insertive Sex:** Bottoms and tops
- **Ever had STD:** Doesn’t think he has ever had an STD
- **Protection/PrEP:** Uses condoms some of the time, has heard of PrEP

What are your thoughts on Jimmy’s HIV risk? Is he a PrEP candidate?
PrEP candidates

“Are you a person who...”

• Worries about your HIV risk and wants to take control of your sexual health?
• Has condomless sex with a partner of unknown HIV status?
• Recently had a sexually transmitted infection (such as gonorrhea or syphilis)?
• Has a sex partner(s) who is living with HIV, or you don’t know their HIV status?
• Exchanges sex for money, food, housing and/or drugs?
• Injects drugs?
• Has an anticipated PrEP need (such as the situations above) in the near future?

Source: https://www.pleaseprepmo.org/patient-resources
Starting PrEP

1. Rule out PEP (post-exposure prophylaxis) eligibility
   - If HIV exposure <72 hours ago → post-exposure prophylaxis (PEP) unless adherent to PrEP
   - If concern for acute HIV → HIV RNA viral load

2. Baseline labs
   - HIV test within 7 days (4th generation Ag/Ab test preferred)
   - STD testing (GC/CT urine, pharyngeal, rectal; serum RPR/VDRL)
   - Creatinine (contraindicated if CrCl <60 ml/min)
   - HBV surface antigen, HCV ab

3. Adherence plan
   - Commit to a daily reminder or routine

4. Follow-up plan
   - F/u in 1-2 weeks to review labs and answer questions
   - Start monthly visits
   - Space out visits up to every three months (if no adherence concerns)
Testing for HIV during “window period” between exposure and antibody positivity

- Rule out PEP (post-exposure prophylaxis) eligibility
- Rule out HIV infection

- If HIV exposure < 72 hours ago → post-exposure prophylaxis (PEP) unless adherent to PrEP
- If concern for acute HIV → HIV RNA viral load

**“Preferred HIV test”**

- RNA/viral load: 11 days
- 4th generation Ag/Ab: 17 days
- HIV Ab 1/2: 22 days

HIV exposure
Starting PrEP

Rule out PEP (post-exposure prophylaxis) eligibility
Rule out HIV infection

Baseline labs
- HIV test within 7 days (4th generation Ag/Ab test preferred)
- STD testing (GC/CT urine, pharyngeal, rectal; serum RPR/VDRL)
- Creatinine (contraindicated if CrCl < 60 ml/min)
- HBV surface antigen, HCV ab

Adherence plan

Follow-up plan
Starting PrEP

1. Rule out PEP (post-exposure prophylaxis) eligibility
2. Rule out HIV infection
3. Baseline labs
4. Adherence plan
5. Follow-up plan

A few reminder ideas...

- Phone
  - App (Round Health)
  - Phone alarm
  - Text messaging service

- Bathroom
  - Next to toothbrush
  - Note on bathroom mirror

• Commit to a daily reminder or routine
Greater adherence $\rightarrow$ greater protection

http://www.natap.org/2014/IAC/IAC_71.htm
Greater adherence $\Rightarrow$ greater protection

PrEP Works if You Take It — Effectiveness and Adherence in Trials of Oral and Topical Tenofovir-Based Prevention

Trials of oral and topical tenofovir-based PrEP show that these strategies reduce risk of HIV infection if they are used correctly and consistently. Higher adherence is directly linked to greater levels of protection.

Calculations based on analyses involving a subset of total trial participants.

% of youth with protective adherence decreased as visit frequency spaced out

Drug resistance

Transmitted drug resistance is rare, but has been documented
  • Importance of condom use
Acquired drug resistance is possible if a patient acquires HIV while on PrEP (likely in setting of nonadherence)
  • More likely to be M184V, M184I mutation associated with emtricitabine
Starting PrEP

Rule out PEP (post-exposure prophylaxis) eligibility
Rule out HIV infection

Baseline labs

Adherence plan

Follow-up plan

Every 1–3 months
- Adherence monitoring and risk reduction counseling

Every 3 months
- HIV testing
- STD testing: RPR and urethral, rectal, pharyngeal GC/CT
- Creatinine (every 3–6 months)

Every 12 months
- Hepatitis C testing if risk factors (MSM, IVDU)

- F/u in 1-2 weeks to review labs and answer questions
- Start monthly visits, space out as adherence concerns decrease
## Side effect monitoring

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/10 may have GI discomfort (aka “Startup syndrome”)</td>
<td>Nausea, gas that resolves by 1 month</td>
<td></td>
</tr>
<tr>
<td>1/200 adults have renal side effects (less common in healthy young adults)</td>
<td>Monitor every 3-6 months depending on renal risk factors</td>
<td>Typically reversible if d/c PrEP; Can continue PrEP if CrCl &gt; 60</td>
</tr>
<tr>
<td>No increased fracture risk</td>
<td>1% transient decrease in bone mineral density (BMD)</td>
<td>HIV infection itself also decreases BMD</td>
</tr>
</tbody>
</table>
Case

Jimmy returns to clinic four months later. He was taking PrEP daily but his prescription ran out last month. He would like to continue PrEP and requests a new prescription. Jimmy reports having condomless anal sex two nights ago.

What are you asking during this follow-up visit?
Case

Jimmy returns to clinic four months later. He was taking PrEP daily but his prescription ran out last month. He would like to continue PrEP and requests a new prescription. Jimmy reports having condomless anal sex two nights ago.

- Rule out PEP (post-exposure prophylaxis) eligibility
- Rule out HIV infection
- If HIV exposure ≤72 hours ago → post-exposure prophylaxis (PEP) unless adherent to PrEP
- If concern for acute HIV → HIV RNA viral load
Post-exposure Prophylaxis (nPEP)
Now 3 ARVs recommended for nPEP regimen:

Tenofovir DF (300 mg)/Emtricitabine (200 mg) daily + Raltegravir 400 mg BID

OR

Tenofovir DF/Emtricitabine daily + Dolutegravir 50 mg daily

• 28-day course of ARVs, and then option to transition seamlessly to PrEP

• Exposure within 72 hours and patient has not been adherent to PrEP for past 7 days

• There is no evidence that PEP “masks” seroconversion
What if my patient has a positive HIV test while on PrEP?

1. Discontinue PrEP
2. Link to HIV care
PrEP considerations for adolescents

Consent

- In California, minors can consent to testing, treatment and preventive/prophylactic care

Adherence

- Start with more frequent visits (monthly), then can space out to every three months if able
Confidentiality and insurance

Refer to Virtual PrEP Program for assistance

No confidentiality concerns?
- Covered by nearly all insurance providers including Medi-Cal
- Copay assistance programs help with cost

Confidentiality concerns?
- Family PACT won’t cover PrEP – need to use insurance and copayment assistance programs
- 7-14 days in advance: myhealthmyinfo.org can block specific info but will still be noticed in deductible
- Can enroll in Medi-Cal minor consent but requires in-person visit to register
- Planned Parenthood if there are high confidentiality needs
Our Virtual PrEP Program Is Here to Help

Confidential initial consultation
- Family PACT Virtual Visit
- M-F during regular clinic hours
- Staffed by PrEP-trained Teen Clinic and Packard Children’s Health Alliance providers

Place referral to “Adolescent-PrEP”
- **Include patient’s confidential phone and email**
- Patients can also directly call LPCH Scheduling

If a current Stanford patient, please try to activate MyChart prior—but no need to delay referral
Virtual PrEP Support

1. Rule out PEP (post-exposure prophylaxis) eligibility
2. Rule out HIV infection

- Trusted provider encourages disclosure of sensitive information

3. Labs

- Local lab visits every 3 months
- Mail patient instructions and supplies to self-collect extragential samples (drop off at lab)

4. Adherence plan

- Secure messaging reminders through Epic
- Robust adherence support

5. Follow-up plan

- Eliminate transportation barriers (time and confidentiality)
- Reduced time missed from school, jobs
- Improve retention in care
Youth-focused PrEP support

Dedicated “PrEP Doctor” provides youth-focused support

- Continuity and patient-provider trust
- Frequent check-ins through secure messaging
- Geographic flexibility (within California)
- Specialized support navigating co-pay assistance programs and insurance
Take home messages:

Teens and young adults can take PrEP to prevent HIV – and our Virtual PrEP Clinic is here to help!

Before starting PrEP, assess for post-exposure prophylaxis (PEP) eligibility and acute HIV.

Agree on a daily reminder to promote adherence.

Start with monthly follow-up at first, then space out up to every three months if tolerating medication and no adherence concerns.

Anticipate confidentiality and cost issues.
  - Record confidential email and phone in the chart/referral

Contact us with any provider questions you have! PrEP@stanfordchildrens.org
Referrals Now Being Accepted for Virtual PrEP Program

This new program provides accessible and comprehensive HIV prevention services to youth. A patient’s confidentiality is of the highest importance, and our confidential Family PACT virtual visits allow patients to visit with a physician without using a parent/guardian’s insurance.

How to Refer a Patient

1. Place referral for Adolescent Medicine – PrEP
2. Call (800) 995-5724
3. Visit mdportal.stanfordchildrens.org
4. Fax (650) 721-2884

Please visit prep.stanfordchildrens.org or email prep@stanfordchildrens.org for more information.
Please complete this brief post-survey: https://stanforduniversity.qualtrics.com/jfe/form/SV_5BwRBhXl6ur4UND

Any questions? Contact us!

PrEP@stanfordchildrens.org

Geoffrey Hart-Cooper
Megen Vo

Referrals: (800) 995-5724    Fax: (650) 721-2884