How PrEPped Are Our Providers?: Assessing Vermont Primary Care Providers’ Knowledge and Awareness of Pre-Exposure Prophylaxis (PrEP) Options for HIV Prevention

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How PrEPped Are Our Providers?
Assessing Vermont Primary Care Providers’ Knowledge and Awareness of Pre-Exposure Prophylaxis (PrEP) Options for HIV Prevention

Christopher Flynn
MS3 – Larner College of Medicine at the University of Vermont Family Medicine Clerkship – Hinesburg Family Practice
Pre-exposure Prophylaxis (PrEP): Medications, Use Metrics, and Associated Problems

Problem: Constant release of new data/guidelines can be difficult to keep track of “best” available PrEP medications and dosing strategies

- Approved PrEP medications: **Truvada** (tenofovir disoproxil fumarate-emtricitabine; 2012 FDA approval) & **Descovy** (tenofovir alafenamide fumarate-emtricitabine; 2019 FDA approval)
- Dosing strategies: once daily pill vs. “on demand”, “event-driven” (2-1-1)
- Further compounded by prior research indicating providers’ lack of training surrounding PrEP prescribing practices

Estimated PrEP users (as of 2018): 200,000-205,000 (US), 187 (VT)
HIV Statistics & Associated Costs

Despite rising trend in number of PrEP users, number of cases per year remains relatively stable.

Majority of VT’s cases are in Chittenden county.

Estimated lifetime cost for early HIV diagnosis is >$400,000
- Prevention is the focus!
- $907,375 to VT for HIV federally funded grants/programs (FY2018)

<table>
<thead>
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<th>VT HIV Statistics (as of 2018)</th>
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<tbody>
<tr>
<td>Number of total diagnosed cases</td>
</tr>
<tr>
<td>Newly diagnosed cases (2018)</td>
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<tr>
<td>MSM transmission for newly diagnosed cases (2018)</td>
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<tr>
<td>Number of PrEP users</td>
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</table>
Perspective of Members of the Community

One of the main issues we face is not asking the right screening questions of our patients—for example, a gay man versus a heterosexual man—to truly understand their needs. This issue is further heightened by our patient population. With a seemingly decreased need for PrEP among our patients, this is not a situation we routinely face, thus I would imagine there would be greater unfamiliarity. Conversely, I would imagine a greater need for PrEP in regions of the state with a younger patient demographic.

-Family Medicine Provider

In the last year, as in-person appointments became restricted, HIV testing access was consolidated to a few core medical providers, which resulted in fewer tests and fewer PrEP referrals. I imagine, also, fewer people continued their prescriptions for PrEP, along with those more limited new prescriptions. We anticipate at Vermont CARES we should be able to resume in-person rapid-result HIV testing this summer, and consequently we know guided referrals to PrEP will increase. One dilemma we face now is that the landscape for referrals and prior routines has changed dramatically for all providers, so we will be re-learning protocols for PrEP access in real-time along with those we serve.

-Peter Jacobsen, Executive Director of Vermont CARES
Intervention & Methodology

Reviewed prior Family Medicine Clerkship projects focusing on PrEP as a novel preventative medicine to compare with multiple options currently available to patients.

Providers (MDs/NPs) at the Hinesburg Family Medicine practice were asked to complete anonymous survey assessing awareness and prescribing practices of PrEP.

Review of survey data highlighted varying levels of knowledge, as well as comfortability and confidence discussing PrEP with patients.

Goal: Equip providers with updated guidelines to increase knowledge and confidence when discussing current options for PrEP with patients.

Give information sheet to all providers in the practice regarding current clinical guidelines for PrEP.
Survey Data Results

- All respondents reported knowledge of PrEP and correctly identified its purpose.
- 40% reported reading current PrEP clinical practice guidelines (CDC).
- 100% of respondents aware of Truvada use as PrEP vs. 20% aware of Descovy use as PrEP.

Provider willingness/readiness to **discuss** and **prescribe** PrEP reported as very willing (60%) or somewhat willing (40%).

Providers’ familiarity with dosing regimens:
- Greater familiarity with once daily dosing (strongly agree + somewhat agree, 80%)
- Less familiar with “on-demand” dosing (somewhat agree + neither agree nor disagree, 100%)

Top provider-reported barriers for prescribing PrEP:
- Cost-related concerns (80%)
- Provider perception of patient risk status (60%)
- Lack of knowledge, training or experience with PrEP (40%)
- Time constraint (40%)
Survey Data Results (cont.)

What is pre-exposure prophylaxis (PrEP)?

- A preventative medicine for HIV-negative adults who are at high risk of exposure to HIV
- A preventative medicine taken within 72 hours of exposure to HIV
- A medicine for HIV positive adults who have had the virus for some time
- None of the above
- I have never heard of PrEP

Have you read the most recent (2017) CDC PrEP clinical practice guideline?

- Yes
- No

Which of the following medications have FDA approval for use as PrEP? (Select all that apply).

- Retrovir (zidovudine)
- Truvada (emtricitabine-tenofovir disoproxil fumarate)
- Complera (emtricitabine-tenofovir disoproxil fumarate-emtricitabine)
- Descovy (emtricitabine-tenofovir alafenamide)
- None of the above.

I am familiar with the existing dosing strategies for PrEP:

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Strongly disagree</th>
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<tbody>
<tr>
<td>Once daily pill</td>
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<tr>
<td>&quot;On-demand&quot;, &quot;event driven&quot; usage</td>
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Provider willingness/readiness to discuss PrEP with high risk patients.

- Very willing
- Somewhat willing
- Neither willing nor unwilling
- Somewhat unwilling
- Strongly unwilling

Provider willingness/readiness to prescribe PrEP for high risk patients.

- Very willing
- Somewhat willing
- Neither willing nor unwilling
- Somewhat unwilling
- Strongly unwilling

What are the top three (3) barriers for you as a provider for prescribing PrEP?

- Lack of knowledge, training, or experience about PrEP
- Discomfort talking with patient about PrEP
- Provider perception of patient risk status
- Time constraint
- Cost-related concerns
- Concerns about drug efficacy or effects on patient
- Other
Evaluation of Intervention

“Use it or lose it” phenomenon: relatively low number of PrEP prescriptions in the state potentially due to low need

◦ Less frequent discussion point between providers and patients, thus providers potentially less likely to keep current with updated guidelines
◦ Influence of provider’s perspective of perceived need for individual patient or community at large

Survey data along with community member interviews highlight implications of providers’ own biases impacting patient encounters

Despite small sample size, fair amount of variability emphasizes need for continued education efforts, especially for minority patient populations

Results of survey are largely qualitative

◦ Potential follow-up 1: Assess differences in PrEP prescribing/counseling practices among providers who reviewed PrEP info sheet vs. another family medicine practice with similar patient demographics
◦ Potential follow-up 2: Survey providers in the practice who reviewed PrEP info sheet and assess changes in comfortability and confidence in PrEP counseling/prescribing practices
References


World Health Organization, 2019. What’s the 2-1-1-? Event driven oral pre-exposure prophylaxis to prevent HIV for men who have sex with men: Update to WHO’s recommendation on oral PrEP. https://apps.who.int/iris/bitstream/handle/10665/325955/WHO-CDS-HIV-19.8-eng.pdf?ua=1