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Building Confidence in the Prescribing and Monitoring of Pre-exposure Prophylaxis (PrEP) in Vermont

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Identifying the Problem

• Approximately 1.2 million people are at high risk of contracting HIV in the United States

• Daily PrEP (Truvada) use can lower HIV contraction through anal sex by 90% and through IV drug use by 70%

• As of 2016 only 77,000 people were prescribed PrEP, a 73% increase from 2012
  • 93% were men
  • 64% were between 25-44 years old

• The rate of PrEP use is 2 times higher in the northeast than the rest of the country, with a majority of those users in New York

• Vermont is aiming to have zero new transmission by 2020, and PrEP will be important to reaching that goal
Barriers to prescribing PrEP in Vermont

Survey completed in 2015 by the Larner College Medicine found:

- 52% of providers in Vermont felt training was a barrier
- Long term safety of use and drug resistance were significant concerns
- 47% of providers considered themselves “not confident at all” when asked about having an informed discussion about PrEP with patients

As of 2016:

- 671 persons are living with HIV/AIDS in Vermont
- Of these 69% were residents of Vermont at time of their diagnosis
- Over 1/3 of persons diagnosed with HIV/AIDS in Vermont live in Chittenden County

There were 8 new HIV diagnoses in Vermont in 2016
Public Health Cost

- The total lifetime treatment cost in the United States for HIV infection based on diagnosis in 2009 was estimated to be $16.6 billion

- Vermont’s total lifetime treatment cost based on diagnosis in 2009 was $4 million
  - $379,668 lifetime cost per person diagnosed in 2009 with HIV

- Farnham et al. study estimated the medical savings from prevention programs between 1991-2006 to be $129.9 billion
  - 361,878 infections prevented

- Cash paying customers pay $1,758 for 30 tablets of Truvada, although most insurance plans cover the cost.
Community Perspective

“If we truly want to get to our goal of zero new transmissions by 2020 we need to have a holistic approach, looking at prevention and medications like PrEP”

- Taylor Small, Director of Health and Wellness at the Pride Center of Vermont

“I do feel we could use more sexual health and HIV prevention and treatment in our residency. I am usually very upfront with my patients to let them know that I may need to take some time to reference and find more information for them, but that I am happy to do so as part of my own learning, but also to take care of their needs.”

- Kelly Brooks, MD Chief Resident University of Vermont Family Medicine Residency
Intervention and Methodology

• An educational card was distributed to the residents and attending physicians at a local family medicine practice, inviting them to use the information as a resource for prescribing and monitoring patients on PrEP

• A copy of the card was placed in the teaching area allowing easy access for providers

• The information card covered indications/contraindications, side effects, and necessary monitoring for patients on the medication

• Recommendations from the CDC, reference databases, and local LGBT+ outreach centers were incorporated into the educational card

Educational Card:

- PrEP Information Sheet

**Indications:**

- Idea for transgendered women who engage in high risk sexual activity with men (recent STI transmission, conclusions and sex etc.)
- Women who are sexually active with men that have sex with men
- Having a sexual partner who is PrEP positive
- Using injectable drugs and having needles
- Someone who is asking for PrEP

**Contraindications:**

- Allergic reaction
- HIV positive, no need for PrEP
- HIV screening in last 12 hours

**Side Effects:**

- GI side effects (Nausea, diarrhea)
- Headache, weight loss, alopecia, joint pain, decreased appetite
- On average patients have a 1% loss of bone density, which is important after discontinuing the medication

**Monitoring with PrEP prescription:**

- Initial Labs: CD4 count, Baseline renal function test, vitamin D levels, vitamin B12 and folic acid, CBC with differential, creatine kinase, ALT, AST, RPR, TSH, HIV antibodies
- Thereafter, lab tests are not required
- Every 3 months: CD4 count

**Recommended prescription for PrEP:**

- Combined Emtricitabine/Tenofovir 150mg / 200mg daily pill, Branded name Truvada

**Questions about prescribing:**

- The CDC recommends a lifetime of PrEP for all at-risk individuals
- The website also addresses concerns that the patient might have and community outreach

Further Information for patients:

- **Prescription drug.png**
  - The website provides a prescription for patients who are interested if PrEP is right for them, in addition to whether they might have higher risk for infection and potential benefits from further conversations about PrEP
  - The website also addresses concerns that the patient might have and community outreach
  - The website provides support and general information on PrEP in a comprehensive way
Results/Response

• Conversation with Providers who have received and reviewed the information card felt the information would be helpful in their future discussion with patients looking to use PrEP

• Effectiveness of the Information card will best be measured by looking at the number of providers at the clinic that start prescribing PrEP, and the overall number of patients that are prescribed PrEP

• Future results will also be shown by surveying the providers about their confidence in prescribing PrEP after having time to utilize the information on the card
Evaluation of Effectiveness/response

• The effectiveness of the intervention would be evaluated by surveying providers at the clinic to determine their confidence level with prescribing and monitoring patients on PrEP, and by evaluating how helpful they perceived the flyer to be.

• The effectiveness would also be gauged by evaluation of patient charts, seeing if there was an increased frequency of discussion and prescription of PrEP after the implementation of the flyer.
Recommendations for future projects

• Talking with the Family Medicine Residents, there is a lack of formal training in recognizing patients who would benefit from PrEP and how to initiate that conversation with patients.
  • Future projects could create a formal training for residents, including simulation to help broach the topic with patients

• Looking to see what barriers patients have initiating the discussion of PrEP with their providers

• Future projects could evaluate how effective educational flyers are long term, and if the information is continually referenced and updated
References

• *Pride Center of Vermont - PrEP Navigation*, pridecentervt.org/prepvt.


• “Deeper Look: PrEP.” *AIDSVu*, aidsvu.org/resources/deeper-look-prep/.


