Ottawa study finds nurse-led PEP clinic works

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People who have been sexually exposed to HIV who initiate anti-HIV therapy within 72 hours of such an exposure and who continue to take these medicines every day for 28 consecutive days significantly reduce their risk of becoming infected. The use of medicine to prevent HIV infection in this way is called post-exposure prophylaxis (PEP).

Traditionally people have accessed PEP via the emergency room (ER) of a hospital, sometimes after a consultation with an infectious disease specialist. However, a visit to the ER can be daunting for some people, in which case the ER itself may inadvertently serve as a barrier to access.

Researchers in Ottawa conducted a two-year study based in sexual health clinics in the community where nurse-led programs assessed the demand for and use of PEP. During this time 112 people requested PEP and 72 of them initiated it. Most people who initiated PEP were men (93%) and most of these men (88%) were gay, bisexual and other men who have sex with men (MSM). Among those who tested HIV negative when they sought PEP, initiated it, and returned six and 16 weeks later for further monitoring and evaluation, none became HIV-positive during that time.

The researchers concluded that “nurse-initiated HIV PEP can be an effective way to provide HIV prevention services to persons who are at high risk for HIV [infection].”

Study details

Researchers at the University of Ottawa collaborated with two clinics in the community—the Sexual Health Centre and GayZone—that are operated by Ottawa Public Health. Researchers recruited nurses who were already experts in the management of sexually transmitted infections (STIs) and trained and educated them about PEP for HIV. The research team then “authorized [the nurses], under medical directives, to provide PEP” to participants who requested it as long as they fulfilled the following criteria:

- potentially at high risk for HIV infection (principally due to condomless anal or vaginal intercourse and/or sharing equipment for substance use)
- tested negative for HIV antibodies at the time of screening and did not have any symptoms associated with very early HIV infection (seroconversion)

Nurses then dispensed a supply of PEP (so-called “starter packs”) containing the following anti-HIV drugs:

- raltegravir (Isentress)
- a fixed-dose combination of two drugs: tenofovir + emtricitabine (Truvada)

Nurses also performed screening for common STIs (chlamydia, gonorrhoea and syphilis).

Participants were linked to additional services, such as counselling made available by community-based HIV organizations and advice from a pharmacist.

Participants were given a starter pack to provide sufficient medicines until they could see an infectious disease specialist. The specialist discussed additional issues, such as potential drug side effects, counselled the participants about risk and requested further laboratory testing (including ordering assessments for liver and kidney health).
Access

Canada’s provincial and territorial ministries of health subsidize some medicines for some conditions. However, coverage of PEP for situations when HIV exposure has occurred via consensual sex is uneven across the country. If participants did not have private insurance coverage, the study paid for the cost of PEP (about $1,600 per person).

Results—Requesting PEP

Over the course of the study, 112 people sought PEP. Their average age was 33 years and most were men. They requested PEP usually within 32 hours of their potential exposure to HIV.

A total of 72 participants initiated PEP. The main reasons for people not initiating PEP were as follows:

- They sought PEP after 72 hours had passed since their potential exposure.
- They had a reactive result (this can be thought of as a preliminary positive test) from the point-of-care test done at the time PEP was requested. Although nurses would then draw a blood sample to be sent to a reference laboratory for standard HIV testing, a reactive test result strongly suggests that a person already has HIV infection and therefore PEP would not be useful.
- They decided not to start PEP after they received counselling about its relative complexity—the need for it to be taken every day for 28 consecutive days, the possibility of drug side effects, and the need for HIV screening both before initiating PEP and after the completion of a course of PEP.

Results of HIV and other testing

Six participants who sought PEP were found to be already HIV positive, in four cases through point-of-care testing and in two by standard blood tests.

Participants who initiated PEP were supposed to return to the community clinics for additional HIV screening and assessments six and 16 weeks after completion of their course of PEP. Only 36% of PEP users returned to the clinics for such screening and assessments. However, all participants who did return for follow-up testing in that time period were HIV negative.

One year after completing their course of PEP (and testing negative for HIV), four of the men in the study tested HIV positive when they were undergoing routine STI screening.

None of the study participants tested positive for chlamydia, gonorrhea or syphilis.

Key findings

The Ottawa study found that operating a nurse-led PEP clinic outside of a hospital has proved feasible. Furthermore, the clinic was able to integrate HIV and STI screening.

As participants were screened for HIV prior to accessing PEP, nurses uncovered HIV infection among men who assumed that they were not infected. This suggests that making PEP available in community settings may also increase HIV testing and access to care (men who tested positive in this study were swiftly linked to an infectious disease specialist).

Four men who tested negative both before and shortly after completing their course of PEP subsequently tested HIV positive a year later. This suggests ongoing high-risk behaviour, as has been found in a PEP study in Boston. According to the Ottawa team, the subsequent infections that occurred in their study “emphasize the need to do long-term follow-up with patients who use PEP and highlights the need to consider HIV pre-exposure prophylaxis (PrEP).”

The research team noted that a nurse-led PEP program is also likely to provide savings to health systems.

The researchers closed their report with the following statement:

“Removing barriers to PEP, such as cost and improved availability, should be considered important components of HIV prevention and reductions in overall community infection rates.”
Acknowledgement

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Resources

Post-exposure prophylaxis (PEP) – CATIE fact sheet

Updated PEP guidelines in cases of sexual, injecting drug use, or other non-occupational exposure to HIV – U.S. Centers for Disease Control and Prevention (CDC), 2016

The deployment of PEP in a Montreal clinic – CATIE News

High rate of mental health issues found among some PEP users – CATIE News

Inside an HIV prevention clinic—trying to transition from PEP to PrEP – CATIE News

The PEP Program – Programming Connection case study

Can we prevent infection with HIV after an exposure? The world of post-exposure prophylaxis (PEP) – Prevention in Focus

Guide pour la prophylaxie après une exposition au VIH, au VHB et au VHC dans un contexte non professionnel : Résumé 2e édition – Ministère de la Santé et des Services sociaux du Québec, 2013

—Sean R. Hosein

REFERENCES:


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