Feasibility and sustainability of providing HIV prophylaxis (PEP) after sexual assault in Canada

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Sexual assault in Canada

Sexual assault is a widespread human rights concern. According to Statistics Canada, over 22,000 cases of sexual assault were reported to police in 2010. However, this statistic likely underestimates the true extent of sexual assault since it’s estimated that as many as 90% of sexual assaults in Canada are not reported to police.

Sexual assault survivors may be at risk of sexually transmitted infections including HIV. Furthermore, certain kinds of sexual assault can significantly increase the risk of HIV transmission, such as multiple perpetrators, multiple sex acts, anal sex, damage to the mucous membranes and pre-existing sexually transmitted infections.

Post-exposure prophylaxis (PEP)

Sexual assault survivors may benefit from the use of post-exposure prophylaxis to reduce their risk of becoming infected with HIV. Post-exposure prophylaxis (PEP) is the use of anti-HIV drugs for 28 consecutive days after a known or suspected exposure to HIV, to reduce the risk of infection. PEP must be started within 72 hours of a suspected high-risk exposure to HIV.

In Canada, the use of PEP after occupational exposures (such as needlestick injuries in the workplace) is considered the standard of care and is widely used. On the other hand, PEP after non-occupational exposures (such as consensual sex and sexual assault) is not widely available or accessed.

The Ontario HIV PEP Study

In Ontario there is a network of 35 Sexual Assault/Domestic Violence Treatment Centres (SA/DVTCs) across the province. These hospital-based centres provide assessment, counselling and treatment to approximately 3,000 sexual assault survivors every year.

In 2003, the Ontario Network of SA/DVTCs implemented a program, as part of a study, to offer HIV risk counselling and free PEP to men, women and children after sexual assault. The program involved the development of guidelines, protocols, counselling tools and patient handouts, as well as the training of staff. The purpose of the program was to evaluate the feasibility and sustainability of a province-wide HIV PEP program. The project was funded by a grant from the Ontario Women’s Health Council, Ontario Ministry of Health and Long-Term Care between 2003 and 2005.

Of the 34 treatment centres in Ontario at the time, 24 participated in the program. The other 10 centres were unable to participate because of staffing and infrastructure barriers.

In addition to counselling and support for sexual assault, sexual assault survivors who were at “high risk” or “unknown risk” of HIV infection (as defined by the study investigators) and who sought care less than 72 hours after the assault, were also offered PEP. The study considered survivors to be at “high risk” if they had had survived assaults involving anal, oral or vaginal sex by someone who was HIV-positive or from a high-risk group (intravenous drug users, men who have sex with men, or persons from countries where HIV is relatively common). If the HIV status of the perpetrator was unknown and it was not known whether the perpetrator belonged to a high-risk group, survivors who had experienced assaults involving anal, oral or vaginal sex were considered at “unknown risk.”
The provision of PEP included HIV risk counselling, provision of PEP medications, and five follow-up visits over the course of four weeks. The purpose of the follow-up visits was to help people adhere to their medication schedules and monitor side effects. The HIV medicines used were as follows:

- AZT + 3TC (sold as a fixed-dose combination called Combivir)
- lopinavir-ritonavir (Kaletra)

**Feasibility of the PEP program**

Between September 2003 to January 2005, 1103 sexual assault survivors sought care at participating treatment centres. The majority (97%) of participants were female and the average age was 21 years.

Of the sexual assault survivors that sought care, 900 were eligible for PEP and 798 were subsequently offered PEP. The majority, 91%, who were offered PEP were at “unknown risk” of HIV infection, while the remaining 9% were considered to be at high risk of infection.

Overall, PEP was started by 347 (44%) of the sexual assault survivors who were offered PEP. PEP was declined by some for various reasons including:

- Lack of concern about HIV (63%)
- Anxiety about side effects (45%)
- Inability/unwillingness to follow the regimen or return for follow-up (16%)

Those deemed to be at “high risk” were more than twice as likely to start PEP. Other factors that predicted whether someone started PEP included:

- Younger age
- Encouragement from the healthcare provider
- Moderate to high level of anxiety about HIV infection (as assessed by the healthcare provider)
- Assaults involving a stranger or multiple sex acts

Of the people who started PEP, 236 (68%) did not complete the full course of medication and follow-up visits. Reasons for not completing PEP included the following:

- Side effects (81%)
- Interference with usual routines (42%)
- Inability to take time from work, school or other commitments (22%)

Side effects were reported by 96% of those who took PEP and attended one or more follow-up visits. The most common side effects included:

- Fatigue (59%)
- Nausea (50%)
- Diarrhea (23%)
- Headache (21%)
- Mood changes (20%)
- Vomiting (16%)

Overall, the study suggests that the implementation of a province-wide program of HIV PEP for sexual assault survivors is feasible. However, the study investigators concluded that “further research is needed to determine how best to engage participants to return for ongoing monitoring and support” and that “ongoing evaluation of strategies aimed at increasing PEP completion rates is clearly necessary.”

**Sustainability of the PEP program**

Healthcare providers involved in the study, including administrators, nurses, physicians, social workers, and pharmacists, were surveyed about the sustainability of the PEP program. Of the 132 healthcare providers who
completed the survey (94 of whom were nurses), the majority (65%) believed that universal offering of HIV PEP to SA/DVTC clients was sustainable at their hospital on a long-term basis.

However, many of the healthcare providers who believed the program was sustainable felt that several conditions would need to be met first. These conditions were similar to the concerns raised by healthcare providers who did not believe that the program was sustainable. From the survey and supplementary interviews, the study investigators identified four major areas of concern to the sustainability of the program once funding for the program finished in 2005.

1. Resources

Healthcare providers were concerned about who would pay for the PEP medications. They were also concerned about the additional staff time required to maintain the program, including time required to track clients to ensure follow-up.

2. Expertise

Healthcare providers were concerned about the lack of external supports to ensure that the PEP protocols, tools and pamphlets remained up-to-date. Questions were also raised about who would provide ongoing training to staff.

3. Commitment

Healthcare providers were concerned about resistance from hospital administration and other staff to providing PEP. For example, some of the physicians and pharmacists involved in the study did not want to follow the protocol and prescribe/dispense PEP because they believed the risks (such as side effects) of taking the medications outweighed the benefits.

4. Accommodation

Healthcare providers were concerned about their inability to address specific client and community needs. For example, some sexual assault survivors were unable to return to the hospital for follow-up visits because they lived too far away. Also, concerns were raised about the appropriateness of the language level used in the client information pamphlets.

The way forward

Several important actions have been taken based on the results of the HIV PEP study. In 2006, the Ministry of Health and Long-Term Care agreed to pay for PEP medications at all treatment centres in Ontario. In 2007, the protocols and tools were adapted and orientation and training of staff began. In 2008, a permanent HIV PEP Expert Group was established to review and revise the drug regimen, protocols and tools on an ongoing basis.

As a result of these actions, PEP after sexual assault has become the standard of care at all 35 SA/DVTCs across Ontario. In addition, the PEP completion rates have increased from 32% between 2003-2005 to 40% between 2006-2010. Hopefully the best practices and lessons learned from this HIV PEP study can be adapted to other provinces and territories in Canada.

—James Wilton

Further reading

CATIE fact sheet on post-exposure prophylaxis
CATIE Prevention in Focus article on post-exposure prophylaxis
CATIE Programming Connection case study on the nPEP program run by Clinique l’actuel in Montreal
Health Initiative for Men (HiM) position paper on nPEP
References


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Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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