Individuals who have experienced an exposure to blood and body fluids may be anxious about the potential of human immunodeficiency virus (HIV) transmission. This can impact an individual’s ability to focus on day to day tasks, lead to prolonged absence from work or an interference with performance. It is important that individuals be counselled about their potential risk of infection, the reasons for recommending or not recommending antiretroviral therapy, and the avoidance of potential HIV transmission to others. It may be difficult for individuals who have suffered an exposure to absorb all the information provided in counselling at the time of the incident. It is therefore important that counselling be repeated at the initial follow-up visit by public health, occupational health services or with their primary care provider, and as needed thereafter.

The fact sheet in Appendix 6a – Patient Information Following an Exposure should be provided and reviewed with the patient. When an HIV post-exposure prophylaxis (PEP) Kit is provided, Appendix 6b – Patient Information for HIV PEP Kit should be provided to the individual (Note – this information sheet can be found within the PEP Kit).

Counselling must be "patient-centered." Risk-reduction messages must be personalized and realistic. Counselling should be culturally relevant, sensitive to issues of sexual identity, and information provided at a level of comprehension that is consistent with the learning skills of the person being served. Routine pre- and post-test counselling recommendations are included in the Canadian Guidelines on Sexually Transmitted Infections.1 The In Depth Pre and Post-test Counselling sheet and other patient/providers resources can be found at www.skhiv.ca/testing.

Pre-test counselling must include a personalized patient-risk assessment. Patient acceptance of risk is a critical component of this assessment. Because the risk-assessment process serves as the basis for assisting the patient in formulating a plan to reduce risk, it is an essential component of all pre-test counselling.

General Guidelines for Initial Counselling

Confidentiality
Individuals should be assured that all test results will be treated in a strictly confidential manner. They should be informed of who test results will be sent to. See Appendix 15 – Collection Use and Disclosure. They should be informed that HIV, hepatitis B virus (HBV) and hepatitis C virus (HCV) are all reportable diseases in Saskatchewan and positive test results will be shared with the Medical Health Officer.

Risk of HIV infection after exposure
The risk of HIV seroconversion can be roughly estimated in some circumstances based on the exposure and the probability that the source person is HIV positive. See Tables 2.1, 2.2 and Attachment – Estimated Per-Act Probability of Acquiring HIV from a known HIV-Infected Source by Exposure Act.

Symptoms of acute retroviral syndrome
Counsel the exposed individual about the signs and symptoms of acute retroviral syndrome (flu-like syndrome), and the need to come in for additional testing should these develop.

Symptoms generally appear 2–4 weeks after initial infection and are often nonspecific or mild. They are usually self-limited, lasting 1–2 weeks, but may last several months.

The spectrum of symptoms may include an acute mononucleosis-like illness, fever and skin rash. Meningoencephalitis or aseptic meningitis may occur. Less commonly, AIDS-defining conditions such as Pneumocystis jiroveci (formerly carinii) pneumonia (PCP or PJP) or oro-esophageal candidiasis may occur (Public Health Agency of Canada, 2008).

Reasons for taking HIV PEP
The following rationale may encourage individuals who are reluctant to take the medications for prophylaxis:

- Early use of antiretroviral therapy (ART) can prevent infection with HIV.
- Antiretroviral therapy can reduce the risk of transmission by 86% (BC Centre for Excellence in HIV/AIDS, 2009).
- A multi-drug regime is used to increase protection and overcome the risk of the source virus being resistant to one of the HIV PEP medications.
- ART taken for 28 days is considered to have few long-term side effects despite the morbidity in the short term and rare mortality.
- If HIV PEP is taken and HIV infection still occurs, the early use of antiretrovirals may favourably alter the course of subsequent infection.

Evidence that antiretroviral drugs can prevent HIV transmission
Although it is not ethical or practical to obtain evidence of the effectiveness of HIV PEP in humans through a randomized controlled clinical trial, there is strong indirect evidence of effectiveness:

- An international case-control study of health-care workers exposed to HIV found that the odds of HIV infection among those who took zidovudine (ZDV, AZT) were reduced by approximately 81%.
- Animal studies found that HIV PEP administered within 24 to 36 hours of infection was effective in preventing transmission; when HIV PEP was initiated 48–72 hours after exposure, infection occurred in some animals (Canadian HIV/AIDS Legal Network, 2001).

How long before an exposed person can be reasonably sure that they have not been infected?
The HIV Window Period is explained in Section 2 – Risk Assessment. The majority of persons infected will seroconvert within 3 months of the exposure. Testing is recommended as per Appendix 10 – Monitoring Recommendations Following Exposures.
Precautions to avoid transmission to others

Until test results are obtained (at the 3-month point following exposure) the following precautions should be taken to prevent potential transmission of HIV to others:

- abstain from sexual intercourse or use a latex condom at all times during intercourse;
- do not donate blood, plasma, organs, tissue or sperm;
- do not share toothbrushes, razors, drug use equipment or other implements which may be contaminated with blood or body fluids;
- do not become pregnant for 3 months.

If breastfeeding, it should be suspended for 3 months (or until HIV infection can be ruled out). Interruption of breastfeeding may be suggested if there remains a risk of HIV transmission (New York State Department of Health AIDS Institute, 2012). The risk of transmission to others is extremely small and should be discussed with a consultant familiar with HIV transmission.

The precautions indicated below should be followed on a regular basis as safe handling and disposal of sharps and items soiled with blood:

- dispose of articles with blood (e.g., tampons, pads, Kleenex) appropriately;
- dispose of sharp items (e.g., razors) in hard-sided containers, taped shut. Refer to Saskatchewan Biomedical Waste Management Guidelines (2008).²

Counselling specific to hepatitis B

If the exposed person is immune to HBV, no further precautions are necessary. For those who are receiving HBlg and/or the hepatitis B vaccine series, a discussion leading to an informed decision may be undertaken on issues regarding safer sex and notifying sexual partner(s). Individuals identified as a chronic hepatitis B carrier will be managed as a hepatitis B case and will be followed up by Public Health. Refer to the Saskatchewan Communicable Disease Control manual for information.

If a breastfeeding mother experiences an exposure hepatitis B, she should be assessed and managed as per Appendix 8 – Management of Potential Exposures to Hepatitis B. In addition to vaccination for the mother, her baby should be provided with HBlg and hepatitis B vaccine even though the risk of HBV through breast milk is low. Once completed, breastfeeding may continue (BC Centre for Disease Control, 2010).

Counselling specific to hepatitis C

Persons potentially infected with HCV should advise sexual partners of the potential risk, although the risk of sexual transmission of HCV appears to be lower than that of HBV or HIV. Individuals should be provided with information on safer sex practices and should ensure precautions are taken for 6 months following the exposure.

Current data indicate that transmission of HCV from mother to infant is rare. Hepatitis C virus is not transmitted by breastfeeding. There is a theoretical risk if the mother’s nipples are cracked and bleeding however.

**Follow-up recommendations**

Follow-up is required for all persons receiving antiretroviral therapy with the individual’s family physician in consultation with an infectious disease Specialist.

Follow-up is also required for individuals having had a probable high-risk exposure to HIV. Public Health will follow-up on all reports of exposures to blood and body fluids to provide counselling and to assist the attending physician to ensure follow-up with the individual’s family physician is reinforced with the exposed individual. If the exposed person does not have a family physician, a designated physician may be identified for follow-up.

Active steps should be taken to address failure to return for post-test counselling. Counsellors should routinely assess whether clients require additional post-test counselling sessions.

Reference may be made to the following articles on the subject of counselling:

- Saskatchewan In Depth Pre and Post-test Counselling sheet, Saskatchewan Ministry of Health, 2015.³
- HIV Pre and Post Test Guidelines, British Columbia Centre for Disease Control, September 2011.⁴
- Guidelines for HIV Counselling and Testing, Ontario Ministry of Health and Long Term Care, March 2008.⁵

**Behavioural and risk reduction counselling**

HIV PEP is not as effective as avoidance of high-risk behaviors. Discussion of safer/less-risky behaviors is the most important part of post-exposure counselling for lifestyle exposures. Clinicians can engage individuals with services, dependent on the need (urgent vs. non-urgent).

**Recommendations**

Clinicians should be familiar with community prevention resources, including peer education and support, and should make this information readily available in the clinical setting.

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³ www.skhiv.ca/testing
⁶ http://aids.gov/hiv-aids-basics/prevention/hiv-testing/pre-post-test-counseling/index.html
Clinicians should refer substance-using patients to treatment programs or other substance use services that best meet the patient’s needs. Some individuals may be participating in risky behaviours (sexual or drug-using) but are unable or unwilling to adopt and maintain safer practices. Clinicians may choose to refer these patients for more intensive prevention counselling.

Individuals presenting with drug use equipment sharing exposure as the risk behaviour should be provided with opportunities for intervention to address repeated high-risk behaviours. The local Public Health Office can provide a list of harm reduction programs where supplies and services are offered in the area or go to: www.skhiv.ca/saskatchewan-harm-reduction-services/

Patients who do not have a stable social situation often will not be receptive to prevention messages because issues such as housing, food, and access to medical care are the focus of their attention. Clinicians should maximize the use of supportive services and community resources to help stabilize the patient’s social situation. Forming relationships with staff at local programs will facilitate subsequent referrals.

**Saskatchewan Health Authority Mental Health and Addictions**

Individuals can contact the HealthLine after regular business hours to obtain more information regarding their mental health and substance use. Initial risk assessments are also available for clinicians to utilize at HealthLine Online at: http://www.saskatchewan.ca/residents/health/accessing-health-care-services/healthline

If an individual is expressing a need to enter into a detox facility, attempts can be made to encourage a self-referral or assist the individual with entering a facility. Individuals who express a desire to address their substance misuse can be referred to an outpatient addiction counsellor for an assessment.


**First Nations Inuit Health (FNIH) Mental Health and Addictions**

List of National Native Alcohol and Drug Abuse Program (NNADAP) Treatment centres: https://www.canada.ca/en/indigenous-services-canada/services/addictions-treatment-first-nations-inuit.html

Hope for Wellness line, which is available 24/7, for people who need immediate counselling services: https://www.canada.ca/en/indigenous-services-canada/services/first-nations-inuit-health/health-promotion/mental-health-wellness/first-nations-inuit-hope-for-wellness-help-line.html
