Guidelines for the Management of Exposure to Blood and Body Fluids Prophylaxis

Government of Saskatchewan

Guidelines for the Management of Exposures to Blood and Body Fluids

Acknowledgements

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Introduction

Purpose of Guidelines/Goals
To ensure individuals exposed to blood and body fluids receive appropriate management, follow-up and information to prevent further transmission of infectious diseases including human immunodeficiency virus (HIV), hepatitis B, hepatitis C and, in the event of sexual assault, sexually transmitted infections (STIs).

General Considerations Regarding Recommendations for Prophylaxis
In evaluating the need for HIV post-exposure prophylaxis (PEP), the following factors should be considered:

- ***duration of time passed*** since the potential exposure;
- ***likelihood of HIV*** infection in the ***source***;
- risk of transmission given the source ***material*** and ***type*** of exposure;
- effectiveness of therapy at modifying that risk;
- toxicity of the therapy;
- burden of adherence to antiretroviral therapy.

Introduction
This document is intended to guide health care providers caring for persons who have been exposed to blood and body fluids in the workplace or community setting. This guideline deals primarily with exposure to HIV, however information on hepatitis B virus (HBV), hepatitis C virus (HCV) and STIs are included so comprehensive care can be provided. This guideline details the process for the initial assessment and management for PEP for HIV in occupational and non-occupational settings in Saskatchewan, including instances of sexual assault. Information on how to access the HIV PEP kit and obtaining the remainder of prophylaxis is included.

This guideline does not address:

- prevention of perinatal transmission from a pregnant woman with HIV;
- pre-exposure prophylaxis (PrEP) as an approach to prevent HIV transmission for those who have ongoing high-risk exposures. Persons interested in PrEP should be referred to an infectious diseases specialist.

For hepatitis B or C refer to Appendices 8 and 9 – Management of Potential Exposures to Hepatitis B and C. Additional information can be found in the Saskatchewan Immunization Manual[1] and the Canadian Immunization Guide, current edition.[2] The Saskatchewan Communicable Disease Control Manual[3] and the Canadian Guidelines on Sexually Transmitted Infections[4] also provide information on HBV and HCV as well as STIs.

Prevention

Prevention is an essential component for the overall control and management of exposure to blood borne pathogens.

In the health care setting, prevention is largely achieved through the establishment of administrative controls, the training and insistence on safer workplace practices, the use of personal protective equipment, and utilization of the best instrument design available. For additional information refer to your regional infection control manual or to Public Health Agency of Canada's Prevention and Control of Occupational Infections in Health Care (2002).[5]

In community settings, prevention is achieved through the use of standards for infection prevention and control by private industry and use of harm reduction measures including such things as needle exchange programs and safer sex practices. Resources include the latest Infection Prevention and Control Practices for Personal Services or the Saskatchewan Personal Service Facility Best Management Practices.

Specific measures for HIV, HBV and HCV are included in Appendix 7 – Prevention of Bloodborne Pathogens.

[1] http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx
[2] http://www.phac-aspc.gc.ca/publicat/cig-gci/index-eng.php.
[3] http://www.ehealthsask.ca/services/manuals/Pages/CDCManual.aspx
[4] http://www.phac-aspc.gc.ca/std-mts/sti-its/guide-lignesdir-eng.php.
[5] http://www.collectionscanada.gc.ca/webarchives/20071124130346/http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02pdf/28s1e.pdf.

Most exposures involve a one-way transmission of body fluid from the source to the exposed person; this guideline is prepared based on this premise. However, situations occasionally arise where both people involved in an incident could have been exposed to each other's fluids (for example, biting incidents, sexual exposures or physical alterations) in which case it is prudent to assess both individuals from the perspective of both being the exposed and the source.

The risk from occupational and community exposures is assessed in the same manner and the same recommendations for management can be applied. The actual risk from exposures outside the healthcare setting for needle-stick injuries is usually significantly less than in the health care setting (Centers for Disease Control and Prevention, 2010); however, some other non-occupational exposures may be of similar or higher risk as some occupational exposures.

To date it appears no one has become infected with human immunodeficiency virus (HIV) from an abandoned needle in Canada, the United States or Europe. The primary route of HIV transmission in Saskatchewan is from sharing needles and other equipment related to illicit drug use, and from unprotected high-risk sexual activity.

HIV PEP should start as soon as possible, preferably within 2 hours of the exposure. It is unlikely to be of benefit if more than 72 hours post-exposure
(US Centers for Disease Control and Prevention, 2005)

Table 2.1 Risk Estimates of HIV, hepatitis B virus (HBV), hepatitis C virus (HCV) Transmission after Exposure to Infected Blood

INFECTED BLOOD	HIV	HBV	HCV
Risk of transmission after percutaneous exposure	0.3% (3 in 1000)	6-30% (6-30 in 100)	3-10% (3-10 in 100)
Risk of transmission after mucocutaneous exposure	0.1% (1 in 1000)		

(U.S. Centers for Disease Control and Prevention, 2003)

The Exposure Incident Report Form (Appendix 3) must be completed. It includes all required information in considering the risk of transmission of HIV, HBV or HCV.

Risk of HIV Transmission

Conducting an objective and thorough risk assessment is the key to making a recommendation for HIV post-exposure prophylaxis (PEP). The risk of transmission is calculated based on the:

- exposure fluid;
- type of exposure;
- likelihood the source is infected.

An exposure can be defined as a percutaneous injury (e.g., needlestick or cut with a sharp object) or contact of mucous membrane or non-intact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, saliva, tissue, or other body fluids that are potentially infectious. Exposure incidents might place the exposed person at risk for HIV, HBV, or HCV infection, and therefore should be evaluated immediately by a qualified health-care professional (U.S. Centers for Disease Control and Prevention, 2001).

Risk by Fluid Type

Determine if a percutaneous, mucosal, or non-intact skin exposure to a potentially infectious body fluid poses a risk for HIV, HBV, or HCV transmission (Table 2.2).

Table 2.2 Fluids and tissues capable of transmitting blood borne pathogens

FLUID	HIV	HBV	HCV
Lab specimens containing concentrated HIV, HBV or HCV	Yes	Yes	Yes
Blood, serum, plasma or other biological fluids visibly contaminated with blood	Yes	Yes	Yes
Pleural, amniotic, pericardial, peritoneal, synovial and cerebrospinal fluids	Yes	Yes	Yes
Semen, vaginal secretions	Yes	Yes	Yes
Saliva	No, unless contaminated with blood	Yes	No, unless contaminated with blood
Breast milk	Yes	Biologically plausible, particularly if nipples are cracked or bleeding or if mother is HBeAg positive	Biologically plausible, particularly if nipples are cracked or bleeding
Organ and tissue transplants	Yes	Yes	Yes
Screened donated blood & manufactured blood products	Minimal risk in Canada	Minimal risk in Canada	Minimal risk in Canada

Source: U.S. Centers for Disease Control and Prevention, 2001.

Although HBV and HIV have been found in secretions such as tears, vomitus, feces and urine, epidemiological studies have not implicated these substances in the transmission of HBV and HIV infections. The risk of transmission increases if these secretions have been contaminated with blood.

Risk by Type of Exposure

The type of exposure (Table 2.3) and risk estimates based on exposures with an HIV infected source (Table 2.4) should be considered prior to recommending HIV PEP (New York State Department of Health AIDS Institute, 2010).

Table 2.3 Consideration of HIV PEP according to Type of Exposure[a]

Types of Exposures When HIV PEP Should Be Recommended (higher-risk exposures)	• Receptive and insertive vaginal or anal intercourse[b] • Needle sharing[b] • Injuries with exposure to blood or other potentially infected fluids (including needlesticks with a hollow-bore needle, human bites, accidents) from a source known to be HIV-infected or has known risk factors
Lower-Risk Exposures That Require Case-by-Case Evaluation for HIV PEP (lower-risk exposures: assess for factors that increase risk before recommending initiation of HIV PEP)	• Oral-vaginal contact (receptive and insertive) • Oral-anal contact (receptive and insertive) • Receptive penile-oral contact with or without ejaculation • Insertive penile-oral contact with or without ejaculation • Injuries with exposure to blood or other potentially infected fluids (including needlesticks with a hollow-bore needle, human bites, accidents) from a source whose HIV status is unknown
	Factors that increase risk: • Source person is known to be HIV-infected with high viral load • An oral mucosa that is not intact (e.g., oral lesions, gingivitis, wounds) • Blood exposure – it is important to note that blood exposure can be minimal and therefore not recognized by the exposed person. If the exposed person reports frank blood exposure, PEP would be indicated • Presence of genital ulcer disease or other STIs
Types of Exposures That Do Not Warrant HIV PEP (no risk)	• Kissing[c] • Oral-to-oral contact without mucosal damage (mouth-to-mouth resuscitation) • Human bites not involving blood • Exposure to solid-bore needles or sharps not in recent contact with blood[d] • Mutual masturbation without skin breakdown or blood exposure • Found needle in community, no visible blood

[a] Table 2.4 provides risk calculations for specific risk behaviours.
[b] With a source know to be HIV-infected or HIV status is unknown.
[c] There is no risk associated with close-mouthed kissing. There is a remote risk associated with open-mouthed kissing if there are sores or bleeding gums and blood is exchanged.
[d] Examples of solid-bore needles include tattoo needles and lancets used by diabetics to measure blood sugar levels.

Source: Adapted from New York State Department of Health AIDS Institute, 2013.

The risk of HIV prophylactic medications usually exceeds the risk of an individual becoming infected from an abandoned needle.

These guidelines do not recommend prophylaxis for needlesticks from an abandoned needle outside the health care setting when there is no history of the origin of the needle or the time of its abandonment.

BC Center of Excellence in HIV/AIDS, 2010

Table 2.4 Estimated Per-Act Probability of Acquiring HIV from a Known HIV-Infected Source by Exposure Act

Type of Exposure	Estimated Risk	Reference
Parenteral		
Blood Transfusion	90% (9 in 10)	Patel, et al (2014)
Needle-sharing during injection drug use	0.63% (63 in 10000)	
Percutaneous (needlestick)	0.23% (23 in 10 000)	
Sexual		
Receptive anal intercourse	1.4% (7 in 5000)	Patel, et al (2014)
Receptive penile-vaginal intercourse	0.08% (8 in 10000)	Patel, et al (2014)
Insertive anal intercourse	0.11% (11 in 10000)	Patel, et al (2014)
Insertive penile-vaginal intercourse	0.04% (4 in 10000)	Patel, et al (2014)
Receptive oral intercourse	Low[a]	Varghese, et al. (2002) Page-Shafer, et al. (2002)
Insertive oral intercourse	Low[a]	Varghese, et al. (2002)
Other[b]		
Biting	Negligible	Pretty, et al. (1999)
Spitting	Negligible	
Throwing body fluids (including semen or saliva)	Negligible	
Sharing sex toys	Negligible	

[a] HIV transmission through oral sex has been documented, but rare. Accurate estimates of risk are not available. It is prudent to recommend HIV PEP for receptive oral sex with ejaculation, although discussion about the low risk should occur. Refer to Table 5.1 for further consideration.
[b] HIV transmission through these exposure routes is technically possible but extremely unlikely and cases are not well documented. Increased risk occurs when the activity involved exposure to blood

Source: New York State Department of Health AIDS Institute, 2013. AIDS (2014)

Factors known to further increase transmission of HIV infection should be included in the risk assessment. These include:

- trauma at the site of the exposure (for example, sexual assault);
- presence of genital ulcer disease and/or other sexually transmitted infections (STIs) in the exposed person;
- high plasma viral load in the HIV-infected partner or source (i.e., in seroconversion illness or late stage AIDS disease) (New York State Department of Health AIDS Institute, 2013);
- exposure to the blood/infectious body fluids from a source with advanced HIV disease;
- exposure to a source with concomitant hepatitis C.

Other factors that may enhance transmission include (Cardo et al., 1997; New York State Department of Health AIDS Institute, 2013):

- cervical ectopy;
- lack of circumcision;
- deep injury;
- visible blood on the device in enough volume to transmit virus; however, risk through exposure to dried blood on discarded needles is extremely low;
- direct injection into a vein or artery;
- terminal illness in the source patient.

Risk Assessment of Source

The New York State Department of Health AIDS Institute (2010) and The Ontario Network of Sexual Assault/Domestic Violence Treatment Centres have identified that sources with the following risks may be at increased risk of HIV infection:

- hepatitis C positive;
- sexually transmitted disease, particularly ulcerative diseases;
- men who have sex with men;
- from a country with an HIV prevalence rate greater than 5%;
- sex with known or suspected HIV positive people;
- history of multiple sexual partners;
- history of sharing needles;
- history of trading sex for money or drugs;
- prior convictions for sexual assault;
- has been in prison.

The details in the previous tables only represent an average risk and risk may be higher in the presence of other risk factors:

- high viral load in the source (i.e., in seroconversion illness or late stage AIDS disease);
- visible blood on the devise and/or devise was previously in a source's artery or vein;
- depth of wound;
- volume of blood;
- gauge of needle in needlestick injuries.

The source, if available, should be tested and or interviewed to provide the most appropriate care to the exposed. The source **must** provide informed consent regarding use and disclosure of information prior to conducting the interview or obtaining specimens for testing. Refer to Appendix 15 – Collection Use and Disclosure of Information and Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure.

Table 2.5 Recommendations for Source Based on HIV Status

Unknown HIV Status	• Obtain risk history and HIV test. • Consider evaluation and testing for other STIs, including hepatitis B and hepatitis C.
Known Positive HIV Status	• Obtain history of antiretroviral medications, recent viral load, CD4 cell count, and date of results. • Consider drawing HIV viral load, CD4 cell count and resistance testing. • Consider evaluation and testing for other STIs, including hepatitis B and hepatitis C.

Table 2.6 Considerations for Exposed Based on Source Status

Known HIV Positive	• HIV PEP should be offered to exposed person based on the assessment of the risk carried by the exposure. See Tables 2.3 and 2.4.
Known HIV Negative	• Consideration should be given to when the source's negative test was and history of risk factors since their last HIV test; history of a prior negative test may not indicate no risk for the exposed. • Consider HIV Point of Care (POC) test if source available.

Unknown & Available for Interview and/or Testing	• Further investigation, including source testing for various blood borne pathogens. HIV PEP may be initiated before receipt of test results if exposure (based on source and type of exposure) is considered high-risk. • HIV POC test should be considered where available for testing the source. See below for more information. • If HIV POC test comes back negative this is very reassuring, however consider the source's risk factors during the window period.
Unknown & Unavailable for Interview and/or Testing	• Emphasis should be placed on the type of exposure, as well as ascertainment of possible risk factors in source.
Refused Testing	• Carefully consider the reasons for refusal. If there is no reason to suspect the source is in a high-risk group and the refusal is based on factors other than fear of disclosure, consider a low-risk source. It is not appropriate to consider all persons who refuse testing as positive.

When results for the source are available, the health care provider who requested the testing should immediately notify the provider responsible for care of the exposed person. The exposed person is entitled to know if the full course of prophylaxis is required or not, but details regarding the source should NOT be provided to the exposed person.

Window Period Considerations

In HIV testing, the window period refers to the time between a person becoming infected and when laboratory tests can detect HIV infection. The window period varies based on the test that is completed; progress in HIV testing technologies continues to result in tests with shorter window periods (BC Centre for Disease Control, 2010).

In addition to test results, the risks that the individual has engaged in during the window period should be considered. There is an extremely low probability that an individual would test negative during the 3 month window period **AND** be involved in an exposure at the same time. Regardless, the possibility of a false negative test result during the window period should be considered in persons with ongoing risk factors. See Risk Assessment of Source and Appendix 14 – Source Patient Risk Assessment.

A summary of window periods based on the HIV test used provides context to the reliability of the test results:

- antibody/antigen (4^{th} generation test) has window period of approximately 2 weeks;
- antibody test (3^{rd} generation) has a window period of approximately 3-4 weeks;

- point of care test has a window period of approximately 1 month (personal communication, Dr. Greg Horsman, October 2012);
- greater than 99% of individuals will have seroconverted by 3 months as detected by the Western blot.

Because window periods vary with the test, a negative test result at 3 months is deemed to be negative and no further testing is required.

Considerations Based on Saskatchewan Data
Prevalence of HIV information for Saskatchewan is not included in these guidelines. The World Health Organization (2007) has identified the following as challenges and cautions using prevalence data to make recommendations for HIV PEP due to:

- lack of reliable prevalence data;
- pockets of high prevalence within low-prevalence settings;
- differences in prevalence between exposed individuals and source subgroups;
- change of prevalence among various demographic groups over time;
- the possibility that HIV PEP may be denied to someone exposed to a known source of HIV infection.

Additional Considerations Prior to Initiating HIV PEP
One must weigh the risks of becoming infected with HIV (which are frequently extremely low) against the risk of taking antiretroviral therapy (which can be significant). Human immunodeficiency virus PEP should not be initiated if the risk/benefit ratio is unfavourable. Refer to Section 3 – Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis (HIV PEP) for details about HIV PEP medications to assist conducting the risk/benefit ratio.

Once the risk assessment is completed, refer to the appropriate section of this guideline that addresses the exposure setting (Section 4 – Occupational and Section 5 – Non-occupational (Community), Section 5a – Sexual Exposures and 5b – Lifestyle). Section 3 outlines information on medications for HIV PEP which is the same for all settings.

HIV Tests
Standard HIV tests routinely have a turn-around time from 2-3 days up to 2 weeks.

When managing an exposure, timely results of source tests can inform the decision for necessary management of the exposed.

An HIV POC test can provide more timely results and should be considered where available for the source and/or the exposed. "Patients must be informed that parallel [standard HIV] testing will be performed to confirm the results of all reactive (positive) and indeterminate point of care rapid tests" (Saskatchewan Ministry of Health, 2012, p. 9). Refer to the Guidelines for the Use of Point of Care (POC) Test Kits in Saskatchewan.[6]

Source:
Human immunodeficiency virus POC test should be considered on the source when they are available and their HIV status is unknown. If an HIV POC test is done and the result is:

- reactive (preliminary positive): prophylaxis is recommended based on the exposure until confirmatory test results are available;
- invalid or indeterminate: if the source has risk factors and the exposure is high-risk, prophylaxis should be strongly considered until confirmatory testing is completed;
- non-reactive: in most cases this result indicates a true negative. However, if the source has engaged in risk behaviour in the 1 month prior to the POC test and the exposure is high-risk, the window period should be considered in determining the appropriate treatment of the exposed.

Exposed:
Human immunodeficiency virus testing of exposed persons is recommended to avoid unnecessary HIV PEP in individuals already infected with HIV and to expedite referral for treatment. Circumstances for which an HIV POC test should be considered for the exposed person include:

- **Single or episodic exposure with a background of unprotected chronic exposure**
  - an individual who has regular, ongoing consensual unprotected sex with an HIV positive partner and presents with another type of exposure such as sharing of needles for injecting drugs or has been sexually assaulted.
- **Chronic exposure without taking precautions or inconsistent use of precautions**
  - intravenous drug users repeatedly sharing needles/works with individuals whose HIV status is known or unknown.
  - sexual assault by an intimate partner with whom a person is also having ongoing unprotected consensual sex.
  - domestic abuse.

[6] http://www.saskatchewan.ca/government/health-care-administration-and-provider-resources/treatment-procedures-and-guidelines/blood-and-blood-borne-illness/hiv-information-for-health-care-providers

If the test result of the exposed person is reactive, HIV PEP is not required, but the individual should be referred for appropriate follow-up by an infectious disease Specialist.

Considering all the info gathered from the risk assessment of the fluid, of the exposure and of the source, as well as the results of the HIV POC test of the source and/or exposed, determine if HIV prophylaxis is indicated or not. Refer to the appropriate section of this guideline that addresses the exposure setting (Section 4 – Occupational and Section 5 – Non-Occupational (Community) including 5a – Sexual Exposures and 5b – Lifestyle) for further guidance. Section 3 outlines information on medications for HIV PEP which is the same for all settings.

Risk of Hepatitis B Transmission

For percutaneous and mucosal exposure to blood, several factors should be considered when making a decision to provide prophylaxis with hepatitis B vaccine and/or immune globulin (HBIg), including the predicted serostatus of the source, the exposed hepatitis B immunization status and vaccine response. Refer to Appendix 8 – Management of Potential Exposures to Hepatitis B.

Community needlestick injury exposures (when the source is unknown) are low-risk and should be managed with hepatitis B vaccine only as per (b) Management of Individuals with Percutaneous or Mucosal Exposure to an Uninfected or Low-Risk Source in Appendix 8.

Table 2.1 demonstrates that HBV is transmitted more efficiently than HIV. When the source is known, the following risk factors should be assessed:

- multiple sexual partners;
- type of sexual contact (anal intercourse carries a higher risk than vaginal intercourse which is higher risk than oral-anal); oral-genital and/or oral-oral contact do not appear to influence the risk of becoming infected with HBV;
- the presence of other sexually transmitted infections;
- if the source is from an endemic country;[7]
- high HBV DNA levels or HBe antigen positivity in the source.

Exposed individuals, including sexual assault victims should be managed with hepatitis B vaccine and/or HBIg as outlined in Appendix 8 – (a) Management of Individuals with Percutaneous or Mucosal Exposure to an Infected or High-Risk Source.

[7] http://wwwnc.cdc.gov/travel/yellowbook/2012/chapter-3-infectious-diseases-related-to-travel/hepatitis-b.htm.

Risk of Hepatitis C Transmission

While HCV is transmitted more efficiently than HIV by the parenteral route, transmission through sexual contact is much less efficient then either HBV or HIV. Persons with multiple partners and those with STIs are at increased risk of acquisition.

HIV co-infection seems to increase the rate of HCV transmission, while individuals without detectable HCV RNA appear to be at extremely low or near zero risk of transmitting HCV.

Currently, there is no effective post-exposure prophylaxis against HCV. Refer to Appendix 9 – Management of Potential Exposures to Hepatitis C.

Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis (HIV PEP)

The human immunodeficiency virus (HIV) post-exposure prophylaxis (PEP) starter kits are provided by the Saskatchewan Ministry of Health. Human immunodeficiency virus PEP starter kits are located in a variety of health care facilities throughout Saskatchewan (see Appendix 2 – Saskatchewan Post-Exposure Prophylaxis (PEP) Kit Sites).

If HIV PEP is indicated, it is recommended the antiretroviral therapy (ART) medications be initiated as soon as possible.

Initiation of all medications in the HIV PEP 'starter kit'* should not be delayed:

- HIV PEP should start as soon as possible, ***preferably within 2 hours*** of the exposure and is unlikely to be of benefit if more than 72 hours post-exposure.
- Adherence to HIV PEP medications is critical for prevention of infection.

*Refer to Appendix 5 – Antiretrovirals in HIV PEP Kits

NOTE: Genotypic resistance testing of the source patient's virus at the time of the exposure to confirm the most appropriate HIV PEP regimen is impractical as it may take two or more weeks to obtain the results.

An infectious diseases (ID) Specialist will authorize the remainder of the 28 days course of HIV PEP. A prescription for the balance of the therapy should be given by the attending physician/ID Specialist/RN(NP) to the exposed person if required. This section provides the details for obtaining the balance of HIV PEP medications.

Provision of HIV PEP Kit

The physician or RN(NP) will make the determination if an HIV PEP Kit is recommended. When the ER physician or RN(NP) requires a second opinion on the results of the Risk Assessment, the Medical Health Officer (MHO) or ID Specialist can be consulted to assist in decision-making. When the situation is questionable and access to an ID Specialist is delayed, it is better to start HIV PEP and ensure quick assessment by an ID Specialist to determine the need to continue therapy.

Before dispensing the HIV PEP Kit, the current list of medications the exposed person is on must be reviewed to determine if there are any contraindications. It is ideal to view the prescription history in the Saskatchewan Drug Plan's electronic Pharmaceutical Information Program (PIP). Refer to Appendix 5 – Antiretrovirals in HIV PEP Kits for medications and drug interactions.

Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis (HIV PEP)

Determine Necessity of Ongoing HIV PEP
The ER physician or RN(NP) doing the initial assessment is required to have a timely phone consultation (within 24 hours) with an ID Specialist so authorization for ongoing HIV PEP can occur (see note below). If the initial or ongoing risk assessment indicates that HIV PEP should be continued, the full treatment period is 28 days.

The HIV PEP Kit includes 3 days of medication.[8] The remaining course for HIV PEP medications can be obtained with a prescription. Access to HIV PEP medications from a community pharmacy, if the pharmacy does not have the medication in stock, may take approximately 2 days.

Decision for Ongoing HIV PEP
The final determination for ongoing HIV PEP is made in consultation with an ID Specialist at the time of the exposure.

The ID Specialist will provide recommendations on the appropriate HIV PEP medications.

Accessing HIV PEP Medications to Complete 28 Day Course
If ongoing HIV PEP is recommended by the ID Specialist, the attending physician or RN(NP) will write a prescription for the client.

Timely Access to Ongoing HIV PEP Medications
It may take up to 2 days for the community pharmacies to obtain the medications for HIV PEP and it is imperative no doses are missed in the interim**,** therefore:

- Review the medications the exposed person is currently taking[9] to determine if there are any contraindications or potential for severe drug interactions. Refer to Appendix 5 – Antiretrovirals in HIV PEP Kits for medications and drug interactions.
- Fax the prescription to the client's pharmacy of choice as soon as written and indicate it is for "PEP" and the name of the ID Specialist who authorized it.

[8] PEP Kits located in sites north of Prince Albert contain 5 days of medications.
[9] The Saskatchewan Pharmacy Information Program (PIP) is a recommended reference for this information.

The ongoing HIV PEP medications will be provided to the client free of charge:

- **Saskatchewan Drug Plan**
  The Saskatchewan Drug Plan authorizes Exception Drug Status (EDS)[10] for the client when the physician or pharmacist requests it. The pharmacist needs to know the EDS criteria requested is 'HIV PEP' and the name of the ID Specialist authorizing ongoing HIV PEP so they can inform the Drug Plan.
- **Non-Insured Health Benefits (NIHB)**
  Health Canada NIHB provides coverage for registered First Nations and recognized Inuit individuals in Canada with a limited range of medically necessary health-related goods and services not provided through private or provincial/territorial health insurance plans. A link to the drug benefit list is found at: http://www.hc-sc.gc.ca/fniah-spnia/nihb-ssna/provide-fournir/pharma-prod/med-list/index-eng.php. Most medications are an open benefit and do not require prior approval. If prior approval is required, the pharmacist will call the Drug Exception Centre at 1-800-580-0950 to initiate the exception process. The prescriber will be faxed a form to complete so a decision can be made.
- **Workers' Compensation Board (WCB)**
  In the instance of occupational exposures where WCB provides coverage, the usual WCB process should be followed.[11] If the claim is not yet set up through WCB, options for payment include:
  a. The employer may pay for the prescription and submit the bill to WCB for coverage once the claim is set up.
  b. The employee can pay for the prescription and submit the bill to WCB for coverage once the claim is set up.
  c. The employee can request the prescription be filled for one week at a time to reduce upfront costs and to allow time for WCB to set the claim up.

[10] For immediate EDS approval during Monday to Friday office hours call (306) 787-8744. When after hours approval is sought, call 1-800-667-2549. Requests received in this manner may take longer to process.
[11] http://www.wcbsask.com/WCBPortalWeb/appmanager/WCBPortalWeb/WCBPortalWeb OR http://www.wcbsask.com/WCBPortalPage/book_forms_pubs.html.

Should WCB deny coverage, but the ID Specialist determines the exposure requires HIV PEP, the medications would be covered by the Ministry of Health. To facilitate coverage:

a. The Saskatchewan Drug Plan will approve the EDS for the HIV PEP medications.
b. The pharmacy will submit a manual pharmacy claim to the Drug Plan for the medications if there is a patient co-pay portion.
c. The Drug Plan will pay the pharmacy for the full cost of the prescription.

Potential Adverse Effects of One Month of Antiretroviral Therapy

The following provides a rough estimate of frequency of adverse effects to assist discussion between the physician and the exposed person in deciding about use of HIV PEP.

- Minor Reactions – nausea, fatigue, etc. (70% of patients).
- Serious Reactions – are rare. Due to the frequency of minor reactions, individuals may be unable to work for the month of therapy (30 – 60% of patients); however, this risk is probably lower with the newer regimens.
- Long Term Effects – are poorly defined: ≈1:5,000.
- Risk of Death – is unknown, but estimated to be 1:15,000 to 1:150,000 (BC Centre for Excellence in HIV/AIDS, 2009).

Special Considerations

Considerations should be given to individuals with **renal insufficiency** and those on other medications. Significant drug interactions and dosing adjustments are highlighted in Appendix 5 – Antiretrovirals in HIV PEP Kits.

Pregnant/Breastfeeding Clients

The antiretroviral medications contained in the provincial HIV PEP kit are **1st line choices for *treating* pregnant HIV patients** and as such may be used if HIV prophylaxis required. Do not deny HIV PEP solely on the basis of pregnancy. As with all HIV exposures where HIV PEP is initiated, expert consultation with an ID Specialist should be sought as soon as possible.

HIV PEP is **indicated at any time during pregnancy** when a significant exposure to HIV has occurred. Before administering to a pregnant woman, the clinician should discuss the potential benefits and risks to her and the fetus.

It should be noted there has been no evidence of human teratogenicity for Combivir® or Kaletra® (i.e., well-tolerated, short-term safety demonstrated in Phase I/II studies; both rated FDA pregnancy category C [Panel on Treatment of HIV-Infected Pregnant Women and Prevention of Perinatal Transmission, 2011]).

Avoid breastfeeding while on HIV PEP and for 3 months after the exposure or until HIV transmission has been ruled out. The risk of breatfeeding is related to the risk of transmission of the virus through the breastmilk, not because of risks from the medications.

Children

The antiretroviral medications contained in the provincial HIV PEP kit are also **1st line choices for *treating* HIV positive children**, though oral solution formulations should be obtained as soon as possible to ensure optimal doses of each agent and avoid the need to split tablets. (See Appendix 5 – Antiretrovirals in HIV PEP Kits for recommendations to accommodate pediatric dosing using a HIV PEP Kit).

Occupational Exposures

An occupational exposure is an exposure to human immunodeficiency virus (HIV) contaminated blood or body fluids, or concentrated virus in an occupational setting including health care, corrections and policing, sanitation workers and other workplaces. This involves any non-intact skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious material that may result from the performance of employees' duties.

For these guidelines, the following occupational groups have been identified:

- Regional Health Authority employees.
- Employees of other organizations – this may include civic, provincial or federal employees (sanitation workers, corrections workers, Royal Canadian Mounted Police, Health Canada employees working in facilities, or private industry).
- Self-Employed.

Assumption: An occupational exposure is where the source is the patient/client and the exposed is the care provider/worker.

The Exposure Incident Report Form (Appendix 3) should be completed by the attending physician/RN(NP) and submitted to the Regional Public Health Office. Public Health will redirect the Incident Report Form to the appropriate health department or jurisdiction responsible for follow-up for the client (for example, Employee Health Services for Health Region Staff or to First Nations and Inuit Health Branch/Northern Inter-Tribal Health Authority for First Nations clients living on reserve).

Step 1 – History of the Incident

Take a history of the incident – Complete Exposure Incident Report Form (Appendix 3) and refer to Appendix 15 – Collection Use and Disclosure of Information. Determine the time elapsed since the exposure. Human immunodeficiency virus post-exposure prophylaxis (PEP) is most beneficial if started within 2 hours. If the exposure occurred greater than 72 hours from presentation, HIV PEP is not recommended.

Step 2 – Risk Assessment – Refer to Section 2 – Risk Assessment.

a. Exposure Fluid.
b. Type of Exposure.
c. Source Assessment – a tool for completing a risk assessment is included in Appendix 14 – Source Patient Risk Assessment. Refer to Appendix 15 – Collection Use and Disclosure of Information and Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure.

Step 3 – Classify the level of risk for HIV – Refer to Section 2 – Risk Assessment.

High-risk.
Low-risk.

Step 4 – Management of Exposure

a. Wound/exposure site management.
b. Tetanus vaccination or tetanus immune globulin should be provided based on the assessment of the injury and immunization history.
c. Baseline laboratory evaluation of exposed person. See Appendix 10 – Monitoring Recommendations Following Exposures.
   - HIV testing;
   - serologic testing for hepatitis B and hepatitis C.
d. Testing of source if available.

HIV Management – Refer to Section 3 – Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis.

Hepatitis B Management

I. Review Hepatitis B Immunization History and Immune Status.

Health Region Employees

Upon notification of exposure of an employee, the occupational/employee health nurse should determine if documentation for hepatitis B immune status is available. In the absence of the data, the employee should be asked to confirm hepatitis B immune status. Ideally, hepatitis B immune globulin (HBIg) should be provided within 48 hours therefore if immune status cannot be obtained within this timeframe, refer to II – Arrange for Administration of appropriate Hepatitis Immunological Agents.

Non-Health Region Employees
The employee should provide consent before any attempts are made to contact their employing agency to obtain hepatitis B immunization records. Alternatively, during office hours Monday to Friday, the local public health office[12] may be contacted to review immunization history.

NOTE: If the immunizations were provided by the employer, Public Health's records may not be current.

II. Arrange for Administration of Appropriate Hepatitis Immunological Agents.
Hepatitis B vaccine and/or HBIg should be provided as per the algorithm in Appendix 8 – Management of Potential Exposures to Hepatitis B.

If indicated, HBIg should be provided within 48 hours after an exposure. The efficacy of HBIg decreases significantly after 48 hours but may be given up to 7 days after exposure. This allows time to review the necessity for the immune globulin and to access it from Canadian Blood Services (if it is not already available in the facility/region).

Individuals requiring immunization may be referred to Occupational/Employee Health or Public Health (if time allows) or be given the first dose of hepatitis B immunization in the ER and referred to Occupational/Employee Health or Public Health for completion of immunization series.

Hepatitis C Management
There is no PEP for exposure to hepatitis C.

Seek expert consultation in situations where source testing is positive for hepatitis B or C. Refer to Appendix 9 – Management of Potential Exposures to Hepatitis C and Appendix 10 – Monitoring Recommendations Following Exposures.

Step 5 – Counselling
Refer to Section 6 – Counselling and Follow-Up for guidelines and topics to discuss with the exposed. This includes routine counselling as well as additional recommendations for

[12] http://www.saskatchewan.ca/residents/health/understanding-the-health-care-system/saskatchewan-health-regions/health-region-contact-information-and-websites

those engaging in behaviours with ongoing risks. Appendix 6a – Patient Information Following an Exposure should be provided and reviewed with the client. When HIV PEP is provided, Appendix 6b – Patient Information for HIV PEP Kits that is found in the PEP Kits should be provided to the individual.

Regardless of HIV status, assess and assist with access to medical care, social support services, and risk-reduction counselling. Refer to Appendix 13 – Expert Consultation Resources for contact information of various services and care providers.

Step 6 – Follow-up Testing
The client should be advised to follow-up with their family physician or the health region occupational/employee health department for follow-up assessment and testing as outlined in Appendix 10 – Monitoring Recommendations Following Exposures.

> **NOTE:** Public Health will also follow-up with all non-health region staff that have experienced an occupational exposure to ensure they are aware of the follow-up required with their primary care provider.

Step 7 – Reporting Requirements
- Refer to Appendix 12 – Reporting Requirements.
- Ensure the Exposure Incident Report Form (Appendix 3) is completed and submitted to the Regional Public Health Office (the Medical Health Officer or Communicable Disease Coordinator) who will submit necessary reporting elements to the Ministry.
- The HIV PEP Kit Replacement Form (Appendix 4) must be completed and Page 1 must be sent to Ministry of Health. Page 2 must be sent to Royal University Hospital (RUH) Pharmacy to have another kit dispensed to the HIV PEP Kit location.
- Workers Compensation Board Forms[13] that must be completed include:
  - the employers report of injury (E1);
  - the physician's report to WCB.
- Employees should follow their employing agencies incident reporting protocols.

[13] http://www.wcbsask.com/WCBPortalWeb/appmanager/WCBPortalWeb/WCBPortalWeb.

Non-Occupational (Community) Exposures

Non-Occupational exposures are any direct mucosal, percutaneous, or intravenous contact with potentially infectious body fluids that occurs outside perinatal or occupational situations. Examples of non-occupational exposure situations:

- needlestick injury from needle found in the community;
- individuals exposed to blood and body fluids;
- physical altercations where exposure to blood or body fluids may occur;
- penetrating injury following an assault;
- tattoos, body piercing or other body modification procedures;
- accidents;
- bite injury:
  - penetrating percutaneous injury;
  - mucosal exposure.
- sexual exposure (refer to the Section 5a – Sexual Exposures for additional information about sexual exposures and recommendations)
- lifestyle factors (see Section 5b – Lifestyle Exposures):
  - needle sharing;
  - serodiscordant couples;
  - unprotected consensual sexual exposure.

The rationale for using human immunodeficiency virus (HIV) post-exposure prophylaxis (PEP) follows a similar logic to that of occupational exposure. Although data from the studies and case reports do not provide definitive evidence of the efficacy of HIV PEP after sexual, injection drug use, and other non-occupational exposures to HIV, the cumulative data demonstrate that antiretroviral therapy initiated soon after exposure and continued for 28 days might reduce the risk for acquiring HIV.

Step 1 – History of the Incident

Take a history of the incident – complete Exposure Incident Report Form (Appendix 3) and refer to Appendix 15 – Collection Use and Disclosure of Information. The history may identify a potential for exchange of fluids (e.g. physical altercation). Both individuals in these exposures should be assessed from the perspective of being both the exposed and the source. Determine the time elapsed since the exposure. Human immunodeficiency virus PEP is most beneficial if started within 2 hours. If the exposure occurred greater than 72 hours from presentation, HIV PEP is not recommended.

Step 2 – Risk Assessment – Refer to Section 2 – Risk Assessment.

a. Exposure Fluid.
b. Type of Exposure.
c. Source Assessment – A tool for completing a risk assessment is included in Appendix 14 – Source Patient Risk Assessment. Refer to Appendix 15 – Collection Use and Disclosure of Information and Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure.

Step 3 – Classify the level of risk for HIV – Refer to Section 2 – Risk Assessment.

High-risk.
Low-risk.

Step 4 – Management of Exposure

a. Wound/exposure site management.
b. Tetanus vaccination or tetanus immune globulin should be provided based on the assessment of the injury and immunization history.
c. Baseline laboratory evaluation of exposed person. See Appendix 10 – Monitoring Recommendations Following Exposures.
   - HIV testing;
   - serologic testing for hepatitis B and hepatitis C.
d. Testing of source if available.

In the instance of sexual exposure, refer to Section 5a – Non-Occupational – Sexual Exposures for other considerations.

HIV Management – Refer to Section 3 – Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis.

Hepatitis B Management

I. Review Hepatitis B Immunization History and Immune Status.
During office hours on Monday to Friday, the local public health office may be contacted to review immunization history.

II. Arrange for Administration of Appropriate Hepatitis B Immunological Agents.
Hepatitis B vaccine and/or hepatitis B immune globulin (HBIg) should be provided as per the algorithm in Appendix 8 – Management of Potential Exposures to Hepatitis B.

Community needlestick injury exposures (when the source is unknown) are low-risk and should be managed with hepatitis B vaccine only as per Uninfected (HBsAg-) or Low-Risk Source in Appendix 8.

If indicated, HBIg should be provided within 48 hours after an exposure. The efficacy of HBIg decreases significantly after 48 hours but may be given up to 7 days after exposure. This allows time to review the necessity for the immune globulin and to access it from Canadian Blood Services (if it is not already available in the facility/region).

Individuals requiring immunization may be referred to Public Health (if time allows) or be given the first dose of hepatitis B immunization in the ER and referred to Public Health for completion of immunization series.

Hepatitis C Management

There is no PEP for exposure to hepatitis C.

Seek expert consultation in situations where source testing is positive for hepatitis B or C. Refer to Appendix 9 – Management of Potential Exposures to Hepatitis C and Appendix 10 – Monitoring Recommendations Following Exposures.

Step 5 – Counselling

Refer to Section 6 – Counselling and Follow-Up for guidelines and topics to discuss with the exposed. This includes routine counselling as well as additional recommendations for those engaging in behaviours with ongoing risks. Appendix 6a – Patient Information Following an Exposure should be provided and reviewed with the client. When HIV PEP is provided, Appendix 6b – Patient Information for HIV PEP Kits that is found in the PEP Kits should be provided to the individual.

Regardless of HIV status, assess and assist with access to medical care, social support services, and risk-reduction counselling. Refer to Appendix 13 – Expert Consultation Resources for contact information of various services and care providers.

Step 6 – Follow-up Testing

The client should be advised to follow-up with their family physician for follow-up assessment and testing as outlined in Appendix 10 – Monitoring Recommendations Following Exposures.

NOTE: Public Health will also follow-up with all non-occupational exposures to ensure they are aware of the follow-up required with their primary care provider.

Step 7 – Reporting Requirements

- Refer to Appendix 12 – Reporting Requirements.
- Ensure the Exposure Incident Report Form (Appendix 3) is completed and submitted to the Regional Public Health Office (the Medical Health Officer or Communicable Disease Coordinator) who will submit necessary reporting elements to the Ministry.
- The HIV PEP Kit Replacement Form (Appendix 4) must be completed and Page 1 must be sent to Ministry of Health. Page 2 must be sent to Royal University Hospital Pharmacy to have another kit dispensed to the HIV PEP Kit location.

Non-Occupational – Sexual Exposures

In dealing with cases of sexual assault, multiple factors need to be considered in each case, before a decision is made regarding the use of human immunodeficiency virus (HIV) post-exposure prophylaxis (PEP). Generally the occurrence of transmission under these circumstances is thought to be low (U.S. Centers for Disease Control and Prevention, 2010). The following factors are pertinent to the decision making process:

- the known or unknown HIV status of the assailant(s);
- the risk profile of the assailant(s);
- the nature and extent of mucosal exposure that occurred;
- the presence of clinical conditions that may enhance transmission such as lacerations or sexual transmitted infections (STIs);
- the possibility of multiple events particularly in cases where children are involved.

NOTE: HIV PEP should not be considered if more than 72 hours after the exposure.

See Risk Assessment of Source (Section 2).

In addition to assessing for HIV, the following should also be considered:

- consider screening (unlikely to be positive in first 72 hours) and prophylaxis for other STIs;
- pregnancy testing, as appropriate;
- assess need for emergency contraception.

With all the above in mind, a considered process is followed and a recommendation can be made regarding the use of HIV PEP. In cases where the matter is not clear, consultation with an infectious disease Specialist or Medical Health Officer is recommended.

In all cases, routine follow-up procedures and management for blood borne pathogen exposure are to be followed as outlined in Section 5 – Non-Occupational (Community) Exposures. Specific testing and follow up for STIs as per the Canadian Guidelines on Sexually Transmitted Infections[14] and the Saskatchewan Communicable Disease Control Manual[15] should occur.

[14] http://www.phac-aspc.gc.ca/std-mts/sti-its/guide-lignesdir-eng.php.
[15] http://www.ehealthsask.ca/services/manuals/Pages/CDCManual.aspx

Fischer et al. (2006) provides recommendations and considerations for HIV PEP based on the nature of exposure and what information is known about the HIV status and risks of the source.

Table 5.1 Recommendations for HIV PEP based on Source Status and Nature of Exposure

HIV Status of source / Sexual Exposure	Source individual is known to be HIV positive	Source has high-risk behaviour and/or is from an area of high HIV prevalence	Source does not have high-risk behaviour nor is from an area of high HIV prevalence
Receptive anal sex	Recommended	Recommended	Considered
Insertive anal sex	Recommended	Considered	Not recommended
Receptive vaginal sex	Recommended	Considered	Not recommended
Insertive vaginal sex	Recommended	Considered	Not recommended
Fellatio with ejaculation	Considered	Considered	Not recommended
Splash of semen into eye	Considered		
Fellatio without ejaculation	Not recommended		
Cunnilingus	Not recommended		

As in all cases, the patient's preferences should also be factored into the final decision-making process.

Sexual Exposures and Sexually Transmitted Infections

Uninfected persons may or may not acquire STIs when exposed to an infected individual. Many factors increase the probability of transmission including:

- the virulence of the pathogen (for example, syphilis is more virulent than gonorrhea, which is more virulent than chlamydia);
- high concentration of the pathogen in semen or other genital fluids;
- presence of another STI in either the infected or susceptible person;
- type of sexual contact (anal intercourse has higher risk than vaginal intercourse with oral sex carrying the lowest risk of transmission);
- absence of male circumcision;
- cervical ectopy;
- no condom with the sexual act;
- use of spermicides;
- trauma associated with the sexual act.

Sexual transmitted infection prophylaxis should be considered in sexual assault/abuse cases. Offer STI prophylaxis if:

- it is known that the assailant is infected or at high-risk for an STI;
- requested by the patient/parent/guardian;
- the patient has signs or symptoms of an STI;
- in addition, it may be appropriate to offer prophylaxis in situations where vaginal, oral or anal penetration has occurred because most sexual assault victims do not return for follow-up visits.

The efficacy of STI antibiotic prophylaxis has not been studied in sexual assault. Prophylaxis should be as recommended for treatment of specific diseases as outlined in the Canadian Guidelines on Sexually Transmitted Infections.[16]

Recommendations for testing and treatments are provided for Sexual Abuse in Peripubertal and Prepubertal Children at: http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-6-5-eng.php. A pediatrician should be consulted in all of these instances.

Recommendations for testing and treatment are provided for Sexual Assault in Postpubertal Adolescents and Adults at: http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-ldcits/section-6-6-eng.php.

Despite providing prophylaxis, clients should be tested for STIs again in 10 days to 2 weeks.

Hepatitis B Management

I. Review Hepatitis B Immunization History and Immune Status.
During office hours on Monday to Friday, the local public health office may be contacted to review immunization history.

II. Arrange for Administration of Appropriate Hepatitis B Immunological Agents.
Hepatitis B vaccine and/or hepatitis B immune globulin (HBIg) should be provided as per the algorithm in Appendix 8 – Management of Potential Exposures to Hepatitis B.

[16] http://www.phac-aspc.gc.ca/std-mts/sti-its/guide-lignesdir-eng.php.

If indicated, HBIg should be provided within 48 hours after an exposure. The efficacy of HBIg decreases significantly after 48 hours but may be given up to 7 days after exposure. This allows time to review the necessity for the immune globulin and to access it from Canadian Blood Services (if it is not already available in the facility/region). In the event of a sexual exposure HBIg may be considered for up to 14 days following exposure.

Individuals requiring immunization may be referred to Public Health (if time allows) or be given the first dose of hepatitis B immunization in the ER and referred to Public Health for completion of immunization series.

Non-Occupational – Lifestyle Exposures

Non-occupational exposures include those where an individual's lifestyle places them in situations where they may be exposed to human immunodeficiency virus (HIV). Some examples:

- **Single or episodic exposure without taking precautions**
  - tattoo, piercing;
  - fight in a bar;
  - consensual sex;
  - initial experimentation with drugs.
- **Single or episodic exposure with a background of protected chronic exposure**
  - regular, ongoing consensual protected sex with an intimate HIV positive partner and there is condom failure (slips, breaks or fail to use on that occasion);
  - sex workers who would normally use a condom and there is condom failure or sexual assault;
  - an injection drug user who is consistent in using appropriate harm reduction measures who mixes up drug use equipment with another user.
- **Single or episodic exposure with a background of unprotected chronic exposure**
  - individual who has regular, ongoing consensual unprotected sex with an intimate HIV positive partner, is sexually assaulted by their partner or someone else, or has another type of exposure such as a needlestick injury.
- **Chronic exposure without taking precautions or inconsistent use of precautions**
  - injection drug users (IDU) repeatedly sharing needles/works with users with known or unknown HIV status;
  - domestic abuse.

When clients present for an incident for which their lifestyle has placed them at risk, the incident for which they are presenting should be assessed on its own merits. In addition to the risk assessment of the exposure, additional referrals and supports should be offered to the client with ongoing risks. Opportunities to link the client with other supportive services should not be missed.

Although the most effective way to prevent HIV transmission is to protect against exposure, HIV post-exposure prophylaxis (PEP) offers the possibility of preventing HIV transmission when exposure to HIV has occurred. It is likely to be most effective when treatment of high-risk exposures is combined with a strong educational component that emphasizes prevention of future exposures. However there are situations of chronic exposures where use of HIV PEP is not recommended.

Eligibility for HIV PEP should be based on the relevance of HIV PEP to prevent HIV infection from a single exposure and should never be a judgment of behaviour or exposure patterns of the individual. An assessment of an individual's exposure pattern should be based on client self-reporting.

Concerns have been raised about the potential risks of using HIV PEP as an intervention for people whose lifestyle places them in situations where they may be exposed to HIV (US Centers for Disease Control and Prevention, 2005). These include:

- possible decrease in risk-reduction behaviours resulting from a perception that post-exposure treatment is available;
- the occurrence of serious adverse effects from antiretroviral treatment in otherwise healthy persons;
- potential selection for resistant virus (particularly if adherence is poor during the HIV PEP course).

Evidence indicates that these theoretical risks might not be major problems (US Centers for Disease Control and Prevention, 2005):

- Several studies indicate that while individuals may not decrease their at-risk behaviour, they do not increase risky behaviour knowing that HIV PEP is available.
- Most people taking HIV PEP will experience side effects but severe side effects and toxicities appear to be infrequent. Refer to Section 3 - Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis.
- Additional information is included in Appendix 5 – Antiretrovirals in HIV PEP Kits and in Section 6 – Counselling and Follow-Up.

Step 1 – History of the Incident

Take a history of the discreet incident for which the client is presenting. Complete the Exposure Incident Report Form (Appendix 3) and refer to Appendix 15 – Collection Use and Disclosure of Information. Determine if the individual falls into a chronic or episodic exposure category as outlined on page 1.

Determine the time elapsed since the exposure. This may be difficult to determine based on the ongoing risks the individual may be exposed to. Human immunodeficiency virus PEP is most beneficial if started within 2 hours. If the exposure occurred greater than 72 hours from presentation, HIV PEP is not recommended.

If a significant exposure has occurred, then additional considerations for use of HIV PEP for individuals whose lifestyle places them in situations where they may be exposed to HIV include:

- Is this an isolated or infrequent exposure?
- Is this a frequent, recurrent exposure?
- Is there genuine intent to change behaviour?

Human immunodeficiency virus PEP is recommended in situations in which there is an isolated or infrequent exposure (sexual, needle, or trauma) or a lapse in previous risk-reduction practices. Situations that may prompt a request for HIV PEP include condom slippage, breakage, or lapse in use by serodiscordant partners; unsafe needle sharing; or other episodic exposure to blood.

Persons who engage in behaviours that result in frequent, recurrent exposures that would require sequential or near-continuous courses of antiretroviral medications (e.g., discordant sex partners who rarely use condoms or injection-drug users who often share injection equipment) should not have HIV PEP recommended. Follow-up in these situations should still involve offering of HIV testing so early treatment can be commenced if they are identified to be HIV positive.

However, HIV PEP should not be absolutely dismissed solely on the basis of repeated risk behaviour or repeat presentation for HIV PEP. If there is genuine intent to change behaviour, or to leave a domestic violence situation, (and the individual is HIV negative) HIV PEP can be offered for that exposure episode along with supportive education and prevention interventions.

If there is no intent/ability to change exposure, or if high-risk behaviour resumes despite appropriate intervention +/- use of HIV PEP, the risk (potential medication toxicity, adherence factors, potential resistance, and cost) outweighs the benefit of repeated use of HIV PEP. Human immunodeficiency virus PEP is not recommended for persons who continue to engage in high-risk behaviours resulting in frequent, recurrent exposures and who appear to rely on HIV PEP as the sole intervention for HIV prevention.

For individuals who continue to engage in risky behaviour, consultation with an infectious disease Specialist may be warranted to discuss alternative measures that may be available, for example the possible use of pre-exposure prophylaxis. Pre-exposure prophylaxis is not currently funded in Saskatchewan.

Step 2 – Risk Assessment – Refer to Section 2 – Risk Assessment.

a. Exposure Fluid.
b. Type of exposure.
c. Source Assessment – A tool for completing a risk assessment is included in Appendix 14 – Source Patient Risk Assessment. Refer to Appendix 15 – Collection Use and Disclosure of Information and Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure.

Consider HIV point of care test for the Exposed as outlined in Section 2 – Risk Assessment, HIV Tests for Exposed Individuals.

Step 3 – Classify the level of risk for HIV – Refer to Section 2 – Risk Assessment.

High-risk.
Low-risk.

Step 4 – Management of Exposure

a. Wound/exposure site management.
b. Tetanus vaccination or tetanus immune globulin should be provided based on the assessment of the injury and immunization history.
c. Baseline laboratory evaluation of exposed person. See Appendix 10 – Monitoring Recommendations Following Exposures.
   - HIV testing;
   - serologic testing for hepatitis B and hepatitis C.

   In the instance of sexual exposure, the following should also be considered:
   - consider screening (unlikely to be positive in first 72 hours) and prophylaxis for other sexually transmitted infections;
   - pregnancy testing, as appropriate;
   - assess need for emergency contraception.
d. Testing of source if available. Refer to Table 2.6.

HIV Management – Refer to Section 3 – Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis.

Hepatitis B Management

I. Review Hepatitis B Immunization History and Immune Status.
II. During office hours on Monday to Friday, the local public health[17] office may be contacted to review immunization history.

[17] http://www.saskatchewan.ca/residents/health/understanding-the-health-care-system/saskatchewan-health-regions/health-region-contact-information-and-websites

III. Arrange for Administration of Appropriate Hepatitis Immunological Agents.
Hepatitis B vaccine and/or hepatitis B immune globulin (HBIg) should be provided as per the algorithm in Appendix 8 – Management of Potential Exposures to Hepatitis B.

If indicated, HBIg should be provided within 48 hours after an exposure. The efficacy of HBIg decreases significantly after 48 hours but may be given up to 7 days after exposure. This allows time to review the necessity for the immune globulin and to access it from Canadian Blood Services (if it is not already available in the facility/region). In the event of a sexual exposure HBIg may be considered for up to 14 days following exposure.

Individuals requiring immunization may be referred to Public Health (if time allows) or be given the first dose of hepatitis B immunization in the ER and referred to Public Health for completion of immunization series.

Hepatitis C Management

There is no PEP for exposure to hepatitis C. Refer to Appendix 9 – Management of Potential Exposures to Hepatitis C.

Sexually Transmitted Infection (STI) Management for Sexual Exposures

Offer STI prophylaxis if:

- it is likely that the patient will not return for follow-up;
- it is known that the source individual is infected or at high-risk for an STI;
- it is requested by the patient/parent/guardian;
- the patient has signs or symptoms of an STI.

Step 5 – Counselling

Refer to Section 6 – Counselling and Follow-Up. In addition, all individuals in chronic risk situations should receive intensified education and prevention interventions, including assessment of their intent to change behaviour or, in the case of domestic violence, their ability to prevent chronic exposure. The attending physician/RN(NP) can deliver this counselling and/or should refer the client to the appropriate agency. See Section 6 – Counselling and Follow-Up.

The fact sheet in Appendix 6a – Patient Information Following an Exposure should be provided and reviewed with the client. When HIV PEP is provided, Appendix 6b – Patient Information for HIV PEP Kits that is found in the PEP Kits should be provided to the individual.

For those who are engaging in behaviours with ongoing risk, refer to Section 6 – Counselling and Follow-Up for additional information and services that the individual may benefit from a referral to.

Regardless of HIV status, assess and assist with access to medical care, social support services, and risk-reduction counselling. Refer to Appendix 13 – Expert Consultation Resources for contact information of various services and care providers.

Step 6 – Follow-up Testing
The client should be advised to follow-up with their family physician for follow-up assessment and testing as outlined in Appendix 10 – Monitoring Recommendations Following Exposures.

> **NOTE:** Public Health will also follow-up with all non-occupational exposures to ensure they are aware of the follow-up required with their primary care provider.

Step 7 – Reporting Requirements
- Refer to Appendix 12 – Reporting Requirements.
- Ensure the Exposure Incident Report Form (Appendix 3) is completed and submitted to the Regional Public Health Office (the Medical Health Officer or Communicable Disease Coordinator) who will submit necessary reporting elements to the Ministry.
- The HIV PEP Kit Replacement Form (Appendix 4) must be completed and Page 1 must be sent to Ministry of Health. Page 2 must be sent to Royal University Hospital Pharmacy to have another kit dispensed to the HIV PEP Kit location.
- Ensure any referrals that are required have been made.

Counselling and Follow-Up

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 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 family physician, and as needed thereafter.

The fact sheet in Appendix 6a – Patient Information Following an Exposure should be provided and reviewed with the client. 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 "client-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.[18]

Pre-test counselling must include a personalized client-risk assessment. Client acceptance of risk is a critical component of this assessment. Because the risk-assessment process serves as the basis for assisting the client 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.

[18] http://www.phac-aspc.gc.ca/std-mts/sti-its/index-eng.php

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 2.4.

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 oroesophageal 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.
- Antiretroviral therapy 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.

Potential adverse effects

Refer to Section 3 – Antiretroviral Therapy (ART) for HIV Post-Exposure Prophylaxis (HIV PEP), and Appendix 5 – Antiretrovirals in HIV PEP Kits.

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, needles 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).[19]

Counselling specific to hepatitis B
If the exposed person is immune to HBV, no further precautions are necessary. For those who are having HBIg 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).

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 HBIg 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.

19 http://www.environment.gov.sk.ca/adx/aspx/adxGetMedia.aspx?DocID=217,216,104,81,1,Documents&MediaID=1099&Filename=Biomedical+Waste+Management.pdf

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:

- HIV Pre and Post Test Guidelines, British Columbia Centre for Disease Control, September 2011.[20]
- Guidelines for HIV Counselling and Testing, Ontario Ministry of Health and Long Term Care, March 2008.[21]
- HIV Pre and Post Test Counselling Guidelines, U.S. Department of Health and Human Services, (2010).[22]

Behavioural and risk reduction counselling

Human immunodeficiency virus 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.

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 needle 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 needle exchange programs for the area: http://www.saskatchewan.ca/residents/health/understanding-the-health-care-system/saskatchewan-health-regions/regional-public-health-offices.

[20] http://www.bccdc.ca/NR/rdonlyres/C0486576-7398-4630-B71C-31A0D5EAEBDC/0/STI_HIV_PrePost_Guidelines_20110923.pdf
[21] http://www.health.gov.on.ca/english/providers/pub/aids/reports/hiv_guidelines.pdf
[22] http://aids.gov/hiv-aids-basics/prevention/hiv-testing/pre-post-test-counseling/index.html

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.

Provincial Regional 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

A list of Mental Health Intake phone numbers can be located at:
http://www.saskatchewan.ca/~/media/files/health/health%20and%20healthy%20living/prov%20health%20system/health%20regions/mental%20health%20and%20addictions%20service%20directory%20by%20community.pdf

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 abuse can be referred to an outpatient addiction counsellor for an assessment. For contact information regarding detoxification and inpatient facilities and outpatient addiction counsellors, go to:
http://www.saskatchewan.ca/~/media/files/health/health%20and%20healthy%20living/prov%20health%20system/health%20regions/mental%20health%20and%20addictions%20service%20directory%20by%20community.pdf

First Nations Inuit Health (FNIH) Mental Health and Addictions
Treatment and Substance Abuse Centres:
http://www.hc-sc.gc.ca/fniah-spnia/substan/index-eng.php.

Addictions Programming on Reserve:
http://www.hc-sc.gc.ca/fniah-spnia/substan/ads/index-eng.php.

Mental Health and Wellness:
http://www.hc-sc.gc.ca/fniah-spnia/promotion/mental/index-eng.php.

Suicide Prevention:
http://www.hc-sc.gc.ca/fniah-spnia/promotion/suicide/index-eng.php.

Indian Residential Schools Resolution Health Support program:
http://www.hc-sc.gc.ca/fniah-spnia/services/indiresident/irs-pi-eng.php.

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Appendix 1 – Acronyms and Definitions

Acronyms

ART – antiretroviral therapy
BBP – blood-borne pathogen
CrCl – creatinine clearance
EDS – Exception Drug Status
HBIg – hepatitis B immune globulin
HBsAg – hepatitis B surface antigen
HBV – hepatitis B virus
HCV – hepatitis C virus
HCW – health care worker
HIV – human immunodeficiency virus
ID – infectious disease
IDU – injection drug use/user
MHO – Medical Health Officer
MSM – men who have sex with men. This includes men who report either homosexual or bisexual contact (Public Health Agency of Canada, 2010)
MSM/IDU – men who have had sex with men and who have injected drugs (Public Health Agency of Canada, 2010)
NIHB – Non-Insured Health Benefits
PCR – polymerase chain reaction
PEP – post-exposure prophylaxis
PIP – Pharmaceutical Information Program
POC – point of care HIV test
PrEP – pre-exposure prophylaxis
qam – every morning
qpm – every evening
STI – sexually transmitted infection
WCB – Workers' Compensation Board

Definitions

Blood-borne pathogen – any pathogen that can be transmitted from one person to another via blood. Such pathogens may also be transmitted by other body fluids; this varies depending on the pathogen and type of body fluid.

Blood or body fluid exposure – an event where blood or other potentially infectious body fluid comes into contact with non-intact skin, mucous membranes, or subcutaneous tissue (via percutaneous injury), (BC Centre for Disease Control, 2010).

CD4 count – CD4 cells are T Cells, a subset of white blood cells (leukocytes) found in blood, lymph nodes, and other organs that play a role in the body's immune function. These "helper" cells initiate the body's response to infections and are a marker for HIV disease progression and risk of opportunistic infections.

Chronic exposure pattern – occurring regularly, for example regular and ongoing unprotected sex with an intimate partner or ongoing needle sharing practices. The identification of repeated or chronic exposure to HIV should lead to greater emphasis on prevention.

Episodic exposures – occurring occasionally. High-risk single or episodic exposure (such as rape by a stranger or needlestick injury) may occur against a background of potential chronic exposure.

Exposed person – the person who came in contact with another person's blood or body fluids.

Exposure

1. The fluid the person was exposed to is capable of transmitting blood borne pathogens. See Guidelines for Management of Exposures to Blood or Body Fluids, Table 2.2.
   AND
2. The fluid contacted the exposed person in such a way that would allow for transmission of blood borne pathogens:
   a. an object with the body fluid punctured or broke the skin of the exposed person
      OR
   b. the fluid came in contact with mucous membrane of the exposed person (e.g., occupational – splashes into eye, mouth or onto broken skin or non-occupational – sexual exposure).

HIV Point of Care Test – screening tests for HIV antibodies that typically provide results within minutes.

HIV Standard Test – the current standard method of HIV testing uses ELISA with confirmatory testing using Western Blot. These standard tests can take several days for results to be available (Saskatchewan Ministry of Health, 2010).

Injection drug users – persons who inject drugs.

Invasive procedures – procedures which involve penetration of the skin or mucosa during which transmission of HBV, HCV, and/or HIV from health care workers to patients are most likely to occur.

Non-intact skin exposure – blood or body fluids comes in contact with a wound < 3 days old, or with skin having compromised integrity (e.g., dermatitis, abrasions, scratches, burns), (BC Centre for Disease Control, 2010).

Non-occupational (Community) exposure – exposure to blood or body fluids potentially contaminated with a blood-borne pathogen that occurs outside of a work setting. This may involve sexual exposures or needle-sharing activities.

Occupational exposure – exposure to potentially HIV contaminated blood or body fluids, or concentrated virus in an occupational setting. This includes any workplace setting such as health care setting, corrections and policing services or sanitation workers.

Percutaneous injury – blood or body fluids from one person is potentially introduced into the bloodstream of another person through the skin via needlestick, tattooing, body piercing, electrolysis, acupuncture, or other sharps injury.

Permucosal exposure – blood or body fluids from one person is introduced into the bloodstream of another person through contact with mucous membranes lining body cavities such as the eyes, nose, mouth, vagina, rectum and urethra.

Pre-exposure prophylaxis – may be part of comprehensive HIV prevention services in which HIV negative people who are at high risk, take antiretroviral medication daily to try to lower their chances of becoming infected with HIV if they are exposed to it. To date, PrEP has only been shown to be effective in MSM and transgendered women who have sex with men. Studies are underway to evaluate whether it is safe and effective in reducing HIV infection among heterosexual men and women as well as injection drug users, but those results are not yet available (U.S. Centers for Disease Prevention and Control, 2012).

In instances of chronic exposure patterns, PEP is likely not appropriate, however PrEP may be useful in selected circumstances. These cases should be referred to an ID Specialist for consideration.

Routine Practices/Standard Precautions – Routine Practices are the infection prevention and control protocols for use in the routine/daily care of all clients at all times.
Principles of Routine Practices include:

- Protecting clients and health care workers (HCWs) and everyone in the health care facility.
- Considering all blood, body fluids, secretions, excretions, drainage, and tissues of all clients potentially infective.
- Conducting a Point of Care Risk Assessment to determine the precautions required when providing care.

Routine Practices include:

1. Hand hygiene.
2. Point of Care Risk Assessment.
3. Use of personal protective equipment – (gloves, mask/respiratory/eye protection, face shields and gowns) when splashes or sprays of blood, body fluids, secretions, or excretions are possible.
4. Respiratory hygiene (cough etiquette).
5. Environmental Controls – cleaning of client care equipment, physical environment and soiled linen and patient placement/accommodation.

Sexual exposure – vaginal, anal or oral sexual contact that involves exposure to blood or body fluids, including semen or vaginal secretions. The exposure may be voluntary (consensual) or involuntary (as in an assault).

Source person – the individual whose blood or body fluids came in contact with another person.

Susceptible contact – an individual who does not possess sufficient resistance to a particular infectious agent to prevent contracting infection or disease when exposed to that agent. Interpretations for susceptibility for the blood-borne pathogens discussed in this guideline are identified below:

- **HIV** – no history of prior anti-HIV positive test.
- **HBV** – those who have not demonstrated protective antibody levels following completion of a hepatitis B vaccine series OR have no history of a chronic HBV infection.
- **HCV** – no history of a prior anti-HCV positive test.

Viral load – measurement of the amount of human immunodeficiency virus in the blood expressed as copies per milliliter. Plasma viremia is used to guide treatment decisions and monitor response to treatment.

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Health Region	Location	# of Kits	Phone/Fax	Contact
Cypress	Shaunavon Hospital 660 Fourth Street East Shaunavon SK S0N 2M0	3 DAY 1 KIT	P: 306-297-2644 F: 306-297-2502	Health Services Manager
Cypress	Maple Creek Hospital 575 Highway #21 South Maple Creek SK S0N 1N0	3 DAY 1 KIT	P: 306-662-2611 F: 306-662-3210	Health Services Manager
Cypress	Leader Hospital 423 Main Street East Leader SK S0N 1H0	3 DAY 1 KIT	P: 306-628-3845 F: 306-628-4413	Acute Health Services Manager
Cypress	Cypress Regional Hospital 2004 Saskatchewan Drive Swift Current SK S9H 5M8	3 DAY 3 KITS	P: 306-778-9400 or 306-778-9560 F: 306-778-9431	Manager, Pharmaceutical Services **Access to Pharmaceutical Information Program (PIP) available**
Five Hills	Pharmacy Dept. Moose Jaw Union Hospital 455 Fairford Street East Moose Jaw SK S6H 1H3	3 DAY 3 KITS	P: 306-694-0396 or 306-694-0200 F: 306-694-0325	Director, Pharmacy **Access to PIP available**
Five Hills	Pharmacy Department. Assiniboia Union Hospital P. O. Box 1120 Assiniboia SK S0H 0B0	3 DAY 1 KIT	P: 306-642-9401 or 306-642-3351 F: 306-642-9459	Director of Care **Access to PIP available**
Five Hills	Pharmacy Department St. Joseph's Hospital 216 Bettez Street Mail Bag 50 Gravelbourg SK S0H 1X0	3 DAY 1 KIT	P: 306-648-3185 F: 306-648-3440	Director of Client Services **Access to PIP available**
Heartland	Kindersley Integrated Health Care Facility 1003-1st Street West Kindersley SK S0L 1S0	3 DAY 2 KITS	P: 306-463-2611 F: 306-463-6914	Pharmacist **Access to PIP available**
Heartland	Unity Hospital P. O. Box 741 Unity SK S0K 4L0	3 DAY 1 KIT	P: 306-228-2666 F: 306-228-2292	Care Team Manager **Access to PIP available**
Heartland	Biggar Hospital P. O. Box 130 Biggar SK S0K 0M0	3 DAY 1 KIT	P: 306-948-3323 F: 306-948-2011	Care Team Manager **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Heartland	Kerrobert Integrated Health Center Kerrobert SK S0L 1R0	3 DAY 1 KIT	P: 306-834-2646 F: 306-834-1007	Care Team Manager **Access to PIP available**
Heartland	Davidson Health Centre Davidson SK S0G 1A0	3 DAY 1 KIT	P: 306-567-2801 F: 306-567-2346	Care Team Manager **Access to PIP available**
Heartland	Heartland Health Region P.H. P. O. Box 1300 Rosetown SK S0L 2V0	3 DAY 1 KIT	P: 306-882-2672 F: 306-882-4683	Clinical Supervisor Public Health Nursing **Access to PIP available**
Heartland	Outlook & District Health Centre P. O. Box 309 Outlook SK S0L 2N0	3 DAY 1 KIT	P: 306-867-8676 F: 306-867-9449	Care Team Manager **Access to PIP available**
Heartland	Rosetown District Health Centre P. O. Box 850 Rosetown SK S0L 2V0	3 DAY 1 KIT	P: 306-882-2672 F: 306-882-3335	Assistant Head RNs **Access to PIP available**
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	St. Joseph's Health Center P. O. Box 219 Ile a la Crosse SK S0M 1C0	6 DAY 1 KIT	CD /Immunization Coordinator (AHA, KYRHA & MCRRHA) P: 306-425-8587 F: 306-425-8530 AND Executive Assistant to MHO P: 306-425-8588 F: 306-425-8530 **Access to PIP available at all sites**	
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	La Loche Health Centre Bag Service # 1 La Loche SK S0M 1G0	6 DAY 2 KITS		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	La Ronge Health Centre P. O. Box 6000 La Ronge SK S0J 1L0	6 DAY 2 KITS		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Beauval Health Centre P. O. Box 68 Beauval SK S0M 0G0	6 DAY 1 KIT		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Buffalo Narrows Health Centre P. O. Box 40 Buffalo Narrows SK S0M 0J0	6 DAY 1 KIT		

Health Region	Location	# of Kits	Phone/Fax	Contact
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Pinehouse Health Centre P. O. Box 296 Pinehouse SK S0J 2B0	6 DAY 1 KIT	CD /Immunization Coordinator (AHA, KYRHA & MCRRHA) P: 306-425-8525 / F: 306-425-8530 AND Executive Assistant to MHO P: 306-425-8588 /F: 306-425-8530 **Access to PIP available at all sites**	
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Sandy Bay Health Centre General Delivery Sandy Bay SK S0P 0G0	6 DAY 2 KITS		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Yutthé Dene Nakohodi Athabasca Health Facility P. O. Box 124 Black Lake SK S0J 0H0	6 DAY 1 KIT		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Uranium City Health Centre P. O. Box 360 Uranium City, SK S0J 2W0	6 DAY 1 KIT		
Athabasca, Keewatin Yatthé & Mamawetan Churchill River*	Population Health Unit P. O. Box 1920 La Ronge, SK S0J 1L0	6 DAY 2 KITS		
Kelsey Trail	Melfort Hospital Pharmacy Department P. O. Box 1480 Melfort SK S0A 1A0	3 DAY 2 KIT	P: 306-752-8719 F: 306-752-8711	Pharmacy Technician **Access to PIP available**
Kelsey Trail	Nipawin Union Hospital Pharmacy Department P. O. Box 2134 Nipawin SK S0E 1E0	3 DAY 2 KIT	P: 306-862-6127 F: 306-862-2198	Pharmacy Technician **Access to PIP available**
Kelsey Trail	Tisdale Union Hospital P. O. Box 1630 110th Avenue West Tisdale SK S0E 1T0	3 DAY 2 KIT	P: 306-873-6525 F: 306-873-4047	Pharmacy Technician **Access to PIP available**
Kelsey Trail	Hudson Bay Hospital P. O. Box 940, 614 Prince Street Hudson Bay SK S0E 0Y0	3 DAY 1 KIT	P: 306-865-2219 F: 306-865-2429	Pharmacy Technician **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Kelsey Trail	Kelvington Hospital P. O. Box 70 512-1st Avenue South Kelvington SK S0A 1W0	3 DAY 1 KIT	P: 306-327-4711 F: 306-327-5115	Pharmacy Technician **Access to PIP available**
Kelsey Trail	Porcupine Plain P. O. Box 70 330 Oak Street Porcupine Plain SK S0E 1H0	3 DAY 1 KIT	P: 306-278-2211 F: 306-278-3088	Pharmacy Technician **Access to PIP available**
Kelsey Trail	Cumberland House Health Centre P. O. Box 8 Cumberland House SK S0E 0S0	6 DAY 1 KIT	P: 306-888-2244 F: 306-888-2269	Nurse in charge **Access to PIP available**
Northern Intertribal Health Authority*	Birch Narrows First Nation Annie Bagg Memorial Nursing Station General Delivery Turnor Lake SK S0M 3E0	6 DAY 1 KIT	P: 306-894-2112 F: 306-894-2088	Senior Health Nurse Birch Narrows Health Center
Northern Intertribal Health Authority*	Black Lake Health Centre General Delivery Black Lake SK S0J 0H0	6 DAY 1 KIT	P: 306-284-2132 F: 306-284-2090	Senior Health Nurse Black Lake Health Center
Northern Intertribal Health Authority*	Canoe Narrows/Lake Health Centre and Nursing Station General Delivery Canoe Lake SK S0M 0K0	6 DAY 1 KIT	P: 306-829-2140 F: 306-829-4450	Senior Health Nurse Canoe Lake Health Center
Northern Intertribal Health Authority*	Deschambault Lake Health Centre General Delivery Deschambault Lake SK S0P 0C0	6 DAY 1 KIT	P: 306-632-2106 F: 306-632-4555	Senior Health Nurse Deschambault Lake Health Center
Northern Intertribal Health Authority*	Fond du Lac Health Centre P. O. Box 213 Fond du Lac SK S0J 0W0	6 DAY 1 KIT	P: 306-686-2003 F: 306-686-2144	Senior Health Nurse Fond du Lac Health Center
Northern Intertribal Health Authority*	Montreal Lake Health Centre General Delivery Montreal Lake SK S0J 1Y0	6 DAY 1 KIT	P: 306-663-5995 F: 306-663-5986	Senior Health Nurse Montreal Lake Health Center
Northern Intertribal Health Authority*	English River Health Center General Delivery Patuanak SK S0M 2H0	6 DAY 1 KIT	P: 306-396-2072 F: 306-396-2047	Senior Health Nurse English River Health Center

Health Region	Location	# of Kits	Phone/Fax	Contact
Northern Intertribal Health Authority*	Southend Health Centre General Delivery Southend SK S0J 2L0	6 DAY 1 KIT	P: 306-758-2063 F: 306-758-2050	Senior Health Nurse Southend Health Center
Northern Intertribal Health Authority*	Pelican Narrows Health Centre General Delivery Pelican Narrows SK S0P 0E0	6 DAY 1 KIT	P: 306-632-2046 F: 306-632-4502	Senior Health Nurse Pelican Narrows Health Center
Northern Intertribal Health Authority*	Stanley Mission Health Centre General Delivery Stanley Mission SK S0J 2P0	6 DAY 1 KIT	P: 306-635-2090 F: 306-635-2189	Senior Nurse Stanley Mission Health Center
Northern Intertribal Health Authority*	Hatchet Lake General Delivery Wollaston Lake SK S0J 3C0	6 DAY 1 KIT	P: 306-633-2167 F: 306-633-2080	Senior Health Nurse Hatchet Lake
Northern Intertribal Health Authority*	Public Health Unit P. O. Box 787 3601 – 5th Avenue East Prince Albert SK S6V 5S4	6 DAY 1 KIT	P: 306-953-0670 F: 306-922-0166	Nurse Epidemiologist Northern Intertribal Health Authority
Prairie North	Battlefords Union Hospital 1092 – 107 Street North Battleford SK S9A 1Z1	3 DAY 5 KITS	P: 306-446-6590 (pharmacy) F: 306-446-6580	Pharmacist **Access to PIP available**
Prairie North	Lloydminster Hospital 3820 43 Avenue Lloydminster SK S9V 1Y5	3 DAY 2 KITS	P: 306-820-6070 F: 306-820-6222 (pharmacy)	Pharmacist **Access to PIP available**
Prairie North	Maidstone Health Complex P. O. Box 160 Maidstone SK S0M 1M0	3 DAY 1 KIT	P: 306-893-2622 F: 306-893-2922	Facility Manager **Access to PIP available**
Prairie North	Riverside Health Complex P. O. Box 10 Turtleford SK S0M 2Y0	3 DAY 1 KIT	P: 306-845-2195 F: 306-845-2772	Facility Manager **Access to PIP available**
Prairie North	Meadow Lake Hospital 711 Centre Street Meadow Lake SK S9X 1E6	3 DAY 1 KIT	P: 306-236-1500 F: 306-236-3244	Pharmacist **Access to PIP available**
Prince Albert Parkland	Victoria Hospital Pharmacy Department. 100 – 24th Street West Prince Albert SK S6V 5T4	6 DAY 2 KITS	P: 306-765-6006 F: 306-765-6290	Director of Pharmacy **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Prince Albert Parkland	Victoria Hospital ER Department 100 – 24th Street W. Prince Albert SK S6V 5T4	6 DAY 2 KITS	P: 306-765-6200 F: 306-765-6224	Director of Pharmacy **Access to PIP available**
Prince Albert Parkland	Parkland Integrated Health Centre P. O. Box 70 Shellbrook SK S0J 2E0	6 DAY 2 KITS	P: 306-747-2603 F: 306-747-3004	Director of Pharmacy **Access to PIP available**
Prince Albert Parkland	Collaborative Emergency Center 400 1st East Spiritwood SK S0J 2M0	6 DAY 1 KIT	P: 306-883-2133 F: 306-883-4440	Director of Pharmacy **Access to PIP available**
Regina Qu'Appelle	Regina General & Pasqua Hospital Pharmacy or RGH/PH Emergency Departments Regina SK	3 DAY 15 KITS	P: 306-766-2521 F: 306-766-2772	Pharmacy Technician Central Purchasing (PH)
Regina Qu'Appelle	All Nations Healing Hospital P. O. Box 300 450 – 8th Street Fort Qu'Appelle SK S0G 1S0	3 DAY 2 KITS	P: 306-332-3613 F: 306-332-2581	Nursing Supervisor **Access to PIP available**
Regina Qu'Appelle	Southeast Integrated Care Centre, Moosomin Bag #1 601 Wright Road Moosomin SK S0G 3N0	3 DAY 1 KIT	P: 306-435-6265 F: 306-435-4245	Manager, Rural Pharmacy Services **Access to PIP available**
Regina Qu'Appelle	Balcarres Integrated Care Centre P. O. Box 340 100 South Elgin Street Balcarres SK S0G 0C0	3 DAY 1 KIT	P: 306-334-6260 F: 306-334-2674	Facility Manager or Facility Care Coordinator **Access to PIP available**
Regina Qu'Appelle	Broadview Union Hospital P. O. Box 100 901 Nina Street Broadview SK S0G 0K0	3 DAY 1 KIT	P: 306-696-5500 F: 306-696-5501	Facility Manager or Patient Care Coordinator **Access to PIP available**
Regina Qu'Appelle	Indian Head Hospital P. O. Box 340 300 Hospital Street Indian Head SK S0G 2K0	3 DAY 1 KIT	P: 306-695-2272 F: 306-695-2525	Facility Manager or Patient Care Coordinator **Access to PIP available**
Regina Qu'Appelle	Wolseley Hospital P. O. Box 458 801 Ouimet Street Wolseley SK S0G 5H0	3 DAY 1 KIT	P: 306-698-2213 F: 306-698-2041	Facility Manager or Patient Care Coordinator **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Saskatoon	Royal University Hospital 103 Hospital Drive Saskatoon SK S7N 0W8	3 DAY 2 KITS	P: 306-655-1362 F: 306-655-1011	Manager of Nursing/ER Services **Access to PIP available**
Saskatoon	Saskatoon City Hospital Emergency 701 Queen Street Saskatoon SK S7K 0M7	3 DAY 2 KITS	P: 306-655-8230 F: 306-655-8759	Manager of Nursing/ER Services **Access to PIP available**
Saskatoon	St. Paul's Hospital Emergency 1702 – 20th Street Saskatoon SK S7K 0Z9	3 DAY 2 KITS	P: 306-655-5110 F: 306-655-5963	Manager of Nursing/ER Services **Access to PIP available**
Saskatoon	Borden Primary Health Centre P. O. Box 90 Borden SK S0K 0N0	3 DAY 1 KIT	P: 306-997-2110 F: 306-997-2114	Nurse Practitioner **Access to PIP available**
Saskatoon	Delisle Primary Health Centre P. O. Box 119 Delisle SK S0K 0N0	3 DAY 1 KIT	P: 306-493-2810 F: 306-493-2812	Nurse Practitioner **Access to PIP available**
Saskatoon	Rosthern Hospital P. O. Box 309 Rosthern SK S0K 3R0	3 DAY 1 KIT	P: 306-232-4811 F: 306-232-4887	Manager, Rosthern Hospital **Access to PIP available**
Saskatoon	Lanigan Hospital Lanigan SK S0K 2M0	3 DAY 1 KIT	P: 306-365-1411 F: 306-365-2589	Clinical Nurse Leader **Access to PIP available**
Saskatoon	Humboldt District Hospital 515 14th Ave. Humboldt SK S0K 2A0	3 DAY 2 KITS	P: 306-682-8118 F: 306-682-4461	Department Head, Pharmacy **Access to PIP available**
Sunrise	Canora Hospital P. O. Box 749 Canora SK	3 DAY 2 KIT	P: 306-563-5621 F: 306-563-5571	Health Services Manager **Access to PIP available**
Sunrise	Invermay Health Centre P. O. Box 160 Invermay SK	3 DAY 1 KIT	P: 306-593-2133 F: 306-593-4566	Health Services Administrator **Access to PIP available**
Sunrise	Kamsack Hospital P. O. Box 429 Kamsack SK	3 DAY 2 KITS	P: 306-542-2635 F: 306-542-4360	Health Services Manager **Access to PIP available**
Sunrise	Norquay Health Centre P. O. Box 190 Norquay SK S0A 2V0	3 DAY 1 KIT	P: 306-594-2133 F: 306-594-2488	Health Services Administrator **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Sunrise	Preeceville Hospital P. O. Box 469 Preeceville SK	3 DAY 1 KIT	P: 306-547-2102 F: 306-547-2223	Health Services Manager **Access to PIP available**
Sunrise	St. Anthony's Hospital P. O. Box 280 Esterhazy SK	3 DAY 2 KITS	P: 306-745-3973 F: 306-745-3388	Facility Administrator **Access to PIP available**
Sunrise	Pioneer Health Care Centre P. O. Box 13 Ituna SK	3 DAY 1 KIT	P: 306-795-2622 P: 306-795-2622 F: 306-795-3592	Health Services Manager **Access to PIP available**
Sunrise	St. Peter's Hospital Pharmacy Department P. O. Box 1810 Melville SK	3 DAY 1 KIT	P: 306-728-5407 F: 306-728-4870	Pharmacy Department **Access to PIP available**
Sunrise	Foam Lake Jubilee Home P. O. Box 460 421 Alberta Avenue East Foam Lake SK S0A 1W0	3 DAY 1 KIT	P: 306-272-4141 F: 306-272-4973	Health Services Manager **Access to PIP available**
Sunrise	Langenburg Health Centre P. O. Box 370 Langenburg SK	3 DAY 1 KIT	P: 306-743-2661 F: 306-743-2844	Health Services Administrator **Access to PIP available**
Sunrise	Yorkton Regional Health Centre Pharmacy Department 270 Bradbrooke Drive Yorkton SK S3N 2K6	3 DAY 4 KITS	P: 306-786-0451 F: 306-782-0452	Pharmacy **Access to PIP available**
Sun Country	Weyburn General Hospital Weyburn SK	3 DAY 1 KIT	P: 306-842-8442 F: 306-842-0064	Regional Director of Pharmacy **Access to PIP available**
Sun Country	St. Joseph's Hospital Estevan SK	3 DAY 1 KIT	P: 306-637-2413 F: 306-637-2486	Pharmacy Manager **Access to PIP available**
Sun Country	Wawota Memorial Health Centre Wawota SK	3 DAY 1 KIT	P: 306-739-2306 F: 306-739-2479	Health Services Manager **Access to PIP available**
Sun Country	Weyburn Public Health Weyburn SK	3 DAY 1 KIT	P: 306-842-8627 or 306-842-8699 F: 306-842-8638	CD/Immunization Coordinator
Sun Country	Radville Marian Health Center P. O. Box 310 310 Railway Avenue Radville SK S0C 2G0	3 DAY 1 KIT	P: 306-869-2224 F: 306-869-2653	Facility Manager **Access to PIP available**

Health Region	Location	# of Kits	Phone/Fax	Contact
Sun Country	Arcola Health Centre P. O. Box 419 607 Prairie Avenue Arcola SK S0C 0G0	3 DAY 1 KIT	P: 306-455-2771 F: 306-455-2397	Facility Manager **Access to PIP available**
Sun Country	Galloway Health Centre P. O. Box 268 917 Tupper Street Oxbow SK S0C 2B0	3 DAY 1 KIT	P: 306-483-2956 F: 306-483-5178	Facility Manager **Access to PIP available**

*Replacement kits for sites in Athabasca, Keewatin Yatthé, and Mamawetan Churchill River RHAs and Northern Inter-Tribal Health Authority (NITHA) should be sent to La Ronge and Prince Albert respectively. They will arrange for distribution to the individual sites.

Appendix 3 –Exposure Incident Report Form

Please see the following pages for the Exposure Incident Report Form.

EXPOSURE INCIDENT REPORT FORM

Copy to Family Physician and Regional Medical Health Officer.
(Regional MHO will forward to Employee Health or FNIHB/ NITHA as appropriate)

	Exposure	Physician Assessment
Date (yyyy/mm/dd)		
Time		
Location		ER □ Office □

Complete Form if: The fluid the person was exposed to is capable of transmitting blood borne pathogens **AND** the fluid contacted the exposed person in such a way that would allow for transmission of blood borne pathogens.

A. EXPOSED INDIVIDUAL (enter dates as yyyy/mm/dd)		
Name		DOB ____/_____/____ □ Female □ Male
Address (name of First Nations reserve if living on reserve)		Home phone number _____ Cell phone number _____ Work phone number _____
Health Card Number		Primary Care Provider (MD/RN(NP)/none)

EXPOSED INDIVIDUAL'S PREVIOUS HISTORY (enter dates as yyyy/mm/dd)		
Prior Hepatitis B vaccination If yes, specify number of doses (please circle)	□ No □ Yes □ Unknown 1 2 3 other _____ Date: _____	
Hepatitis B surface antibody immune (Anti-HBs ≥10 IU/L)	□ No □ Yes Date: □ Unknown	
Prior Hepatitis B surface antigen (HBsAg) status	□ Positive □ Negative Date: _____	□ Unknown
Prior Hepatitis C antibody status (anti-HCV)	□ Positive □ Negative Date: _____	□ Unknown
Prior HIV antibody status (anti-HIV)	□ Positive □ Negative Date: _____	□ Unknown
Previous PEP kit usage	□ No □ Yes Date: □ Unknown	

B. DETAILS OF EXPOSURE

*** In the event of a reciprocal exposure, complete form for both individuals**

1. Type of Exposure and Injury

Exposure Setting:	□ Occupational Employer:	□ Non-Occupational (Community) □ Lifestyle □ Sexual Assault	
Type of Exposure:	□ Percutaneous □ Mucous membrane □ Bite	□ Insertive Penile-Anal intercourse □ Receptive Penile-Anal intercourse □ Insertive Penile-Vaginal intercourse	□ Receptive Penile-Vaginal intercourse □ Non-intact skin exposure □ Other
Extent of Injury:	□ Trauma at site □ Deep injury	□ Fresh/visible blood on the device □ Direct injection into a vein or artery	□ Other

2. Type of Source Fluid

□	Blood, serum, plasma or other biological fluids visibly contaminated with blood
□	Pleural, amniotic, pericardial, peritoneal, synovial and cerebrospinal fluids
□	Semen, vaginal secretions
□	Saliva contaminated with blood
□	Saliva not contaminated with blood
□	Lab specimens containing concentrated HBV, HCV, or HIV
□	Organ and tissue transplants
□	Breast milk
□	Unknown (e.g., needle found on street)
Other (describe)	_____

C. SOURCE INDIVIDUAL(complete below)

□ Unknown □ Known (first two letters of the first and last names and Date of Birth)

Initials ____ ____ DOB (yyyy/mm/dd) _____/_____/_____

SOURCE INDIVIDUAL'S PREVIOUS HISTORY (enter dates as yyyy/mm/dd)		
Prior Hep B vaccination If yes, specify number of doses (please circle)	□ No □ Yes □ Unknown 1 2 3 other _____ Date: _____	
Hepatitis B surface antibody immune (Anti-HBs ≥10IU/L)	□ No □ Yes Date: unknown	
Prior Hepatitis B surface antigen (HBsAg) status	□ Positive □ Negative Date: _____	□ Unknown
Prior Hepatitis C antibody status (anti-HCV)	□ Positive □ Negative Date: _____	□ Unknown
If HCV antibody positive, HCV PCR status	□ Positive □ Negative Date: _____	□ Unknown
Prior HIV antibody status (anti-HIV)	□ Positive □ Negative Date: _____	□ Unknown
Family Physician &/or Infectious Disease Specialist		
If known HIV positive:	CD4 Count: _____ Viral Load: _____ Current ARV Treatment: _____	
HIV POC Test Date:_____	**Result: □ Reactive □ Non-reactive □ Indeterminate**	

RISK ASSESSMENT OF SOURCE IF HIV NEGATIVE OR UNKNOWN		
Consideration of risk is based on source's IV drug use, participation in high-risk sexual practices, hepatitis C status, and if he or she is from an HIV endemic country. **Refer to Section 2 – Risk Assessment and Appendix 14 – Source Patient Risk Assessment**	**Indicate if assessment of source risk is considered to be High or Low**	
	High	**Low**

D. Baseline Blood Test results

If the baseline test results are not be available on the day of the exposure, the physician or RN(NP) providing follow-up may complete the following later, and will also decide regarding further follow-up testing as per Appendix 10.

SOURCE'S BASELINE RESULTS	**□ Not available for testing**
Hepatitis B surface Antigen (HBsAg)	□ Positive □ Negative
Hepatitis C antibody (anti-HCV)	□ Positive □ Negative
HIV antibody (anti-HIV)	□ Positive □ Negative

EXPOSED BASELINE RESULTS	
Hepatitis B surface antibody (anti-HBs)	□ Present □ Absent
HIV antibody (anti-HIV)	□ Positive □ Negative
Hepatitis C antibody (anti-HCV)	□ Positive □ Negative
Hepatitis B surface antigen (HBsAg)	□ Positive □ Negative

NOTES/ADDITIONAL INFORMATION

Physician's Overall Assessment of Risk of HIV Transmission from Exposure

☐ **High** ☐ **Low**

Ideally, PEP should be administered within 2 hours.
It is not recommended if >72 hours since exposure.

To be completed by attending ER physician / RN(NP):

FOLLOW-UP PROVIDED AT TIME OF ASSESSMENT			
	Yes	**No**	**N/A**
PEP Kit Provided Date and Time of first dose _____			
Phone Consultation with ID Specialist(Identify)_____			
Ongoing PEP Prescription Provided			
Referral to other supportive services (i.e. Mental Health/Addictions)			
HBIg provided	DOSE		DATE
1st Dose of hepatitis B Immunization Given	DOSE		DATE
STI Testing/Treatment (identify Tx given)_____			
Td Vaccine provided	DOSE		DATE
Tetanus Immune Globulin provided	DOSE		DATE
Discussion about follow-up blood work			
Faxed to Regional MHO (Do not await baseline test results before faxing) pages 1, 2, 3, 4 & 5			
Form faxed to ID Specialist when consult is required, pages 1, 2, 3 & 4			
Form faxed to Exposed Family Physician (pages 1, 2, 3, & 4)			

Completed by: _____ Date: _____

To be completed by public health or occupational health nurse providing follow-up:

PUBLIC HEALTH OR OCCUPATIONAL HEALTH FOLLOW-UP			
	Yes	**No**	**N/A**
Exposed Individual Contacted			
Form faxed to RHA Occupational/Employee Health Department			
Form faxed to FNIHB/NITHA for individuals living on reserve			
Verified prescription filled (if prescribed)			
Referral to other supportive services (i.e. Mental Health/Addictions)			
Discussion about follow-up blood work			
Risk reduction counselling provided			

Completed by: _____ Date: _____

SOURCE INDIVIDUAL		
Name		DOB ____/_____/____ □ Female □ Male
Address	If inpatient, Room # _____	Home phone number _____ Cell phone number _____ Work phone number _____
Health Card Number		Family Physician

Unless the source provides consent, this page should only be faxed to the MHO. Refer to Appendix 15 – Collection Use and Disclosure of Information. If in the professional opinion of the attending physician, the ID Specialist requires the source's identifying information, and consent has not been provided, documentation of the rationale should be included.

Source identifying information should be severed from the exposed person's health record.

Consent obtained to share identifying information with ID Specialist

□ Yes □ No

Information Faxed:

Date Faxed to ID Specialist _____

Additional comments: _____

_____

_____

_____

Signature _____

Please see the following pages for the HIV PEP Kit Replacement Form.

Government of Saskatchewan
Ministry of Health

HIV PEP Kit Replacement

Please complete for all HIV PEP kits used and/or expired medications.

Addressograph (or provide details below)

This information is collected for invoicing purposes and for replacement of HIV PEP kits. For more information, please refer to The Guidelines for the Management of Exposures to Blood and Body Fluids, Saskatchewan Ministry of Health at https://www.ehealthsask.ca/services/Manuals/Pages/hiv-guidelines.aspx .

NOTE: Replacement medications or kits will not be released without all the information below.

Health Region:	**Site/Facility:**
Type: ❑ **3 day kit** ❑ **6 day kit (2x3 day kits)**	
Replacement for expired medication: (Please indicate expiry dates of both *medications)* Combivir® with expiry date of: _____ Kaletra® with expiry date of: _____	
PEP kit used on (date):	**Exposure Date:**
Exposed Person Name:	
Date of Birth (DD/MM/YYYY):	**Health Card Number:**
Exposure Category: ❑ Non-Occupational ❑ Occupational	

Physician/Nurse Signature: _____

Print Name: _____ Contact #: _____

After completion:

- ***FAX Page 1 to*** (306) 787-9576 - Saskatchewan Ministry of Health.
- ***FAX Page 2 to*** (306) 655-6388 - Manufacturing Area, RUH Pharmacy, Saskatoon.

Please press hard for multiple copies.

REMOVE AND COMPLETE FORM BEFORE DISPENSING KIT

Government of Saskatchewan
Ministry of Health

HIV PEP Kit Replacement

[redacted]

Please complete for all HIV PEP kits used and/or expired medications.

This information is collected for invoicing purposes and for replacement of HIV PEP kits. For more information, please refer to The Guidelines for the Management of Exposures to Blood and Body Fluids, Saskatchewan Ministry of Health at https://www.ehealthsask.ca/services/Manuals/Pages/hiv-guidelines.aspx

NOTE: Replacement medications or kits will not be released without all the information below.

Health Region:	**Site/Facility:**
Type: ❑ **3 day kit** ❑ **6 day kit (2x3 day kits)**	
Replacement for expired medication: (Please indicate expiry dates of both *medications)* Combivir® with expiry date of: _____ Kaletra® with expiry date of: _____	
PEP kit used on (date):	**Exposure Date:**
[redacted]	
Exposure Category: ❑ Non-Occupational ❑ Occupational	

Physician/Nurse Signature: _____

Print Name: _____ Contact #: _____

After completion:

- ***FAX Page 1 to*** (306) 787-9576 - Saskatchewan Ministry of Health.
- ***FAX Page 2 to*** (306) 655-6388 - Manufacturing Area, RUH Pharmacy, Saskatoon.

RUH USE ONLY	
Attach shipping label here:	**Date/Time Shipped:** **COMBIVIR 150/300** **KALETRA 200/50**

Appendix 5 – Antiretrovirals in HIV PEP Kits

Prior to prescribing antiretrovirals (ARV), please refer to the following pages for information on side effects, drug interactions, renal dosing, pediatric dosing, etc.

NOTE: Dosing of ARVs for prophylaxis is the same as treatment of HIV positive individuals.

Adults/Children *more than* 40 kg:

1. **Kaletra®** (lopinavir 200mg/ritonavir 50mg) **TWO Tablets po TWICE Daily (i.e. 400mg lopinavir/100mg ritonavir)**

PLUS

2. **Combivir®** (zidovudine 300mg/lamivudine 150mg) **ONE Tablet po TWICE Daily**
   If HIV PEP is continuing for 4 weeks and the client has renal dysfunction, adjust dosing as soon as possible as per the Compendium of Pharmaceuticals and Specialties:
   - **If creatinine clearance (CrCl) less than 50mL/min,** dose adjustment of lamivudine required
   - **If CrCl less than 15mL/min,** dose adjustment of zidovudine and lamivudine required

Children and Individuals 40 kg and less (discussion with a Pediatric ID Specialist is required)**:**
Use the medications provided in HIV PEP kit for the first 24 - 48 hours (*a pill cutter should be used*) until oral solutions of ARVs can be obtained if necessary. Details of oral suspension dosing provided on page 3.

1. **Kaletra®** (lopinavir 200mg/ritonavir 50mg per tablet) – Adapted from BC Centre for Excellence in HIV/AIDS, 2009 *Therapeutic Guidelines*.

Weight	# of Kaletra® 200mg/50mg Tablets from HIV PEP Kit
7 kg to less than 11 kg	½ tablet TWICE Daily
11 kg to less than 17 kg	¾ tablet TWICE Daily
17 kg to less than 22 kg	1 tablet TWICE Daily
22 kg to less than 27 kg	1¼ tablet TWICE Daily
27 kg to less than 32 kg	1½ tablet TWICE Daily
32 kg to less than 40 kg	1¾ tablets TWICE Daily
40 kg or greater	2 tablets TWICE Daily (adult dose)

PLUS

2. **Combivir®** (zidovudine 300mg/lamivudine 150mg per tablet)

Age/Weight	# of Combivir® tablets from HIV PEP Kit
7 kg to 8.9 kg	¼ tablet TWICE Daily
9 kg to 14.9 kg	¼ tablet qam & ½ tablet qpm
15 kg to 17.9 kg	½ tablet TWICE Daily
18 kg to 21.9 kg	½ tablet qam & ¾ tablet qpm
22 kg to 24.9 kg	¾ tablet TWICE Daily
25 kg to 29.9 kg	¾ tablet qam & 1 tablet qpm
30 kg or more	1 tablet TWICE Daily (adult dose)

Additional medication information for review PRIOR to prescribing

Antiretroviral Agent	Dose	Possible Side Effects	Additional Information (Significant drug interactions, side effects, etc.)
Kaletra® (lopinavir/ritonavir, LPV/RTV) Supplied as: **Tablets** - lopinavir 200mg/ ritonavir 50mg OR - lopinavir 100mg/ ritonavir 25mg **Oral Solution** - lopinavir 80mg/ ritonavir 20mg per mL - *Contains 42.4% alcohol*	**Adults/Children *more than* 40 kg:** lopinavir 400mg/ritonavir 100mg po TWICE Daily (i.e. Two 200mg/50mg tablets TWICE Daily) **Oral Solution for individuals *less than* 40 kg:** 7 kg to 14.9kg: 12mg/kg lopinavir/3mg/kg ritonavir po TWICE Daily 15 kg to less than 40kg**:** 10mg/kg lopinavir/ 2.5mg/kg ritonavir po TWICE Daily	* Diarrhea, nausea * Perioral tingling * Headache * Rash * ↑cholesterol & triglycerides * Hyperglycemia (long-term use)	* Film coated Tablets & Oral Solution should be taken with food. * Refrigeration not required as prophylaxis is less than 1 month ++ **Drug Interactions** due to potent CYP3A4 inhibition **Avoid**: (*Not all inclusive. Consult pharmacist and/or ID Specialist*) * Fentanyl – Respiratory depression * Fluticasone (i.e. Advair®, Flovent®) – Cushing's syndrome * Simvastatin, lovastatin – severe rhabdomyolysis, myopathy * Rifampin – ↓ lopinavir-treatment failure * Midazolam, triazolam - respiratory depression * Pimozide – cardiac toxicity, Torsades, MI * Ergot derivatives – ergotism * St. John's wort – ↓ lopinavir-treatment failure * Voriconazole, etc, etc. **Caution**: (Not all inclusive) * Amiodarone – hypotension, etc. * Anticonvulsants (Phenytoin, phenobarbital, carbamazepine, valproic acid) * Oral contraceptives – ↓ effect OCPs * Statins - ↑ myopathy
PLUS			
Combivir® Supplied as: **Tablets** - zi dovudine 300mg/ lamivudine 150mg	**Adult/Children *more than* 30 kg:** 1 tablet po TWICE Daily **CrCl less than 50mL/min**, adjust lamivudine component	*See Retrovir® & 3TC® later in this table*	*See Retrovir® & 3TC® later in this table*

Dosing of Individual Components of Combivir®:

Antiretroviral Agent	Dose	Possible Side Effects	Additional Information
Zidovudine (ZDV, AZT) – **Retrovir®** Supplied as: **Capsules** 100 mg **Oral Solution** 10mg/mL (240mL)	**Adults/Children 30 kg *or more*:** 300mg po TWICE Daily **Oral Solution for individuals *less than* 30 kg:** 4kg to less than 9kg: 12mg/kg TWICE Daily 9kg to less than 30kg: 9mg/kg TWICE Daily **CrCl less than 15mL/min**, dosage adjustment required	* Nausea, headaches, malaise, anorexia, anemia, neutropenia, myopathy * Rare: hepatotoxicity, lactic acidosis	* May take with or without food * Caution when used with other bone marrow suppressing drugs
PLUS			
Lamivudine – **3TC®** Supplied as: **Tablets** 150 mg OR 300 mg **Oral Solution** 10mg/mL (240mL)	**Adults/Children 40 kg or more:** 150mg po TWICE Daily OR 300mg po ONCE Daily **Oral Solution for individuals *less than* 40 kg:** 4 mg/kg TWICE Daily (Maximum 150 mg/dose) **CrCl less than 50mL/min**, dosage adjustment required	* Well tolerated * Headache, nausea, diarrhea, abdominal pain and insomnia * Rare: rash, pancreatitis, lactic acidosis	* May take with or without food

References

British Columbia Centre for Excellence in HIV/AIDS. (2009). *Therapeutic guidelines: Accidental exposure*. Retrieved May, 2013 from http://www.cfenet.ubc.ca/our-work/initiatives/therapeutic-guidelines/accidental-exposure-therapeutic-guidelines.

U.S. Centers for Disease Control and Prevention. (2005). Antiretroviral postexposure prophylaxis after sexual, injection-drug use, or other nonoccupational exposure to HIV in the United States. *Morbidity and Mortality Weekly Report (MMWR), 54(RR02); 1-20*, January 21, 2005. Retrieved May, 2013 from http://aidsinfo.nih.gov/contentfiles/NonOccupationalExposureGL.pdf.

U.S. Department of Health and Human Services Panel on Antiretroviral Therapy and Medical Management of HIV-Infected Children. (2011) *Guidelines for the use of antiretroviral agents in pediatric HIV infection*. Retrieved May, 2013 from http://aidsinfo.nih.gov/contentfiles/lvguidelines/pediatricguidelines.pdf.

Appendix 6a – Patient Information Following an Exposure to Blood or Body Fluids

Please see the following pages for Patient Information Following an Exposure to Blood or Body Fluids.

Patient Information Following an Exposure to Blood and Body Fluids

Should I be worried about my exposure?

- Risk of transmission from the exposure is only possible if:
  - an object with blood or a body fluid punctured or broke your skin (such as a needle stick), OR
  - the blood or body fluid came in contact with broken skin, your mouth, your genitals or your eyes (mucous membranes) AND
  - you were exposed to a fluid that can transmit the virus:

	Human Immunodeficiency Virus (HIV)	**Hepatitis B Virus (HBV)**	**Hepatitis C Virus (HCV)**
What fluids can transmit the virus:	• Blood, blood products or other biological fluids visibly contaminated with blood; • Semen, vaginal secretions; • Saliva (only if contaminated with blood); • Breastmilk.	• Blood, blood products or other biological fluids visibly contaminated with blood; • Semen, vaginal secretions; • Saliva; • Breastmilk (only if contaminated with blood).	• Blood, blood products or other biological fluids visibly contaminated with blood; • Semen, vaginal secretions; • Saliva and breastmilk only if contaminated with blood.
What is the virus and how can it affect me?	• It affects the immune system. • Over time, it wears down the immune system and makes it harder to fight infections.	• It infects the liver. • About 90% of adults will completely recover from the infection after 6 months. • About 8-10% of people will be at risk for long-term complications because of the ongoing damage to the liver (e.g. cirrhosis, or liver cancer).	• It infects the liver. • About 25% of people will clear the virus on their own • The other 75% of people will remain chronically infected unless they receive antiviral therapy which can clear the virus in about 45-80% of individuals. • Without treatment, 15-25% will be at risk for long term complications.

	Human Immunodeficiency Virus (HIV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)
What is the risk from the exposure with a positive source?	• The estimated risk of HIV transmission from a needle-stick injury is approximately 0.3%. • Exposures to mucous membranes is approximately 0.1%.	• If you responded to previous vaccinations, the risk of infection is virtually 0%. • If you have not been immunized or did not respond to vaccines, and did not receive HBIg, the risk from a needle-stick is between 5-30%.	• The estimated risk of HCV transmission from a needle-stick is approximately 3-10%.
Is there a vaccine for it?	• No	• Yes	• No
What follow-up is required?	• Blood tests at 1 and 3 months after the exposure.	• Blood tests at 3 months after exposure.	• Blood tests at 1, 3 and 6 months after the exposure.
What is the treatment following a high risk exposure?	• There are medications that help prevent infection. If you received these, refer to the information sheet.	• Hep B immune globulin and vaccine for those who are not immune. See Hep B Fact Sheet.	• There is no preventive treatment. • Monitoring for infection will allow for early treatment of infection.

How do I protect others while I am waiting for my status to be confirmed through the testing?

All of these viruses are transmitted through blood and body fluids so it is important to:

- Practice safer sex – use condoms for vaginal, anal and oral sex
- Do not donate blood, blood products or tissues
- Do not share personal items such as razors, toothbrushes, etc.
- Do not share needles or drug use equipment
- Ensure proper disposal of any items contaminated with blood
- Do not get pregnant and do not breastfeed

What happens now?

Public health will contact you to answer any questions you have and to remind you about the follow-up tests that are required and who you should go to for these tests to be completed. Each of these diseases are reportable in Saskatchewan. If any of your blood tests return with positive results, your family physician and public health will contact you to do any necessary follow-up.

For more information contact:
Your local public health office
OR your physician or nurse practitioner
OR HealthLine at 811.

Appendix 6b – Patient Medication Information for HIV Post-Exposure Prophylaxis (HIV PEP)

Please see the following pages for Patient Medication Information for HIV Post-Exposure Prophylaxis (HIV PEP).

Patient Medication Information for HIV Post-Exposure Prophylaxis (HIV PEP)

What is the risk of HIV infection after an exposure?

- **Most exposures do <u>not</u> result in infection.** The risk varies with the type of exposure and factors such as the amount of blood involved and the amount of virus in the infected material.
  - The average risk of getting HIV after exposure to known HIV-infected blood through a needlestick or cut is about one chance in 300 exposures.
  - The risk from a mucocutaneous (e.g., eye, nose or mouth) exposure to known HIV-infected blood is much less – about one chance in 1,000 exposures.

Why should PEP be considered?

- A study in healthcare workers following exposure to HIV-infected blood suggested early short term zidovudine (an antiretroviral medication) was associated with a significantly decreased risk of getting HIV. Combinations of antiretrovirals are likely even more effective.

What medications are recommended for PEP?

- Combivir® and Kaletra® are antiretroviral medications used in the *treatment of* individuals with HIV. They work by slowing the rate of HIV multiplication in the body.

Adults/Children 40kg or over:
- Combivir® ONE tablet every 12 hours (150mg lamivudine + 300mg zidovudine per tablet) ***plus***
- Kaletra® TWO tablets every 12 hours (200mg lopinavir + 50mg ritonavir per tablet)

Less than 40kg: Refer to Ministry of Health website http://www.ehealthsask.ca/services/manuals/Pages/hiv-guidelines.aspx, Guidelines for the Management of Exposures to Blood and Body Fluids for recommendations using the adult tablets (Appendix 5).

How should these medications be taken?

- Treatment should be started promptly, preferably within 1-2 hours after the exposure.
- If the source is found to be HIV negative, these medications should be stopped.
- The medications in the kit are provided at no charge, however, if you are to complete the recommended 4 weeks (28 days) course, your doctor will provide you with an outpatient prescription. The Workers' Compensation Board (WCB) covers the medication cost if the exposure is work-related so the appropriate paperwork must be initiated ASAP. If non work-related, the medications are covered by the Saskatchewan Drug Plan and the doctor (or pharmacist) must apply for EDS – Exception Drug Status indicating "for PEP", or through the Non-Insured Health Benefits Branch for patients who have federal drug coverage.

IMPORTANT NOTICE
- It may take up to two days for a community pharmacy to obtain these medications, so take your prescription to the pharmacy as soon as possible.
- If you are unable to obtain the medications, contact the doctor immediately. If after hours, return to the Emergency Department to avoid missing doses.

- To ensure effectiveness, avoid missing doses. Take each dose as close to the scheduled time as possible to maintain the levels in your body. Do not skip doses. Consider setting an alarm as a reminder and place the medications in a dosette.
- Take with a meal or light snack to minimize side effects.

What should you do if you forget a dose?

- Take it as soon as you remember, then continue with your regular dosing schedule.

What are the side effects of Combivir® and Kaletra®?

- Some people experience allergic reactions to medications. **If you have any of the following symptoms soon after taking a dose, STOP taking the medication and tell your doctor, or go to an Emergency Department immediately.**
  - sudden wheeziness, chest pain or tightening;
  - swelling of eyelids, face or lips;
  - fever, chills, shortness of breath, heart palpitations;
  - "hives" or severe rash.
- **Combivir®** – Common side effects are generally mild and temporary and may include headache, nausea, loss of appetite, stomach cramps, insomnia and muscle weakness.
- **Kaletra®** – Common side effects are nausea, diarrhea, headache, rash. **NOTE**: It may reduce effectiveness of birth control pills and interact with many other medications (cholesterol lowering medications, steroid inhalers, fentanyl patches, etc.). Check with your pharmacist.

  If any side effect is concerning, please call your doctor.

What other precautions should you follow while using antiretrovirals?

- Advise sexual partners of potential risk. Practice safer sex (e.g. use a condom).
- Avoid pregnancy.
- Stop breastfeeding.
- Avoid donating blood.
- Do not share razors, toothbrushes, or needles.
- Doses of medications may need to be adjusted depending on your health history.
  Tell your doctor if you:
  - had or have a problem with your kidneys;
  - had or have any liver disease, particularly hepatitis;
  - have any other medical conditions or illnesses;
  - are pregnant, plan on becoming pregnant, or are breast-feeding;
  - are taking **ANY** other medication (prescription, non-prescription, herbals, etc.).

Ensure your pharmacist and/or doctor confirms the medications you take do not impair the benefit of these medications (i.e. interact), or lead to unwanted or severe side effects.
Do not start other medications without first discussing them with your doctor or pharmacist.

How should these medications be stored?

- Store in tightly closed containers in a cool (15-30°C), dry place protected from light.
- Avoid storage in high heat and/or humidity as this may decrease the activity of the medications.
- Keep out of reach of children**.**

If you have any questions or concerns about these medications, please discuss them with your pharmacist, doctor or nurse.

*(*Adapted from Vancouver Coastal)

Appendix 7 – Prevention of Bloodborne Pathogens

Use of routine infection control precautions in health care and personal care settings and use of harm reduction measures for individuals who engage in risky behaviours can help to reduce the risk of exposure to all BBPs.

Vaccination

Hepatitis B

Hepatitis B vaccination for all at-risk HCWs is a very important and necessary preventive measure against HBV transmission in the health care delivery environment.

a. Health care workers, emergency service workers and others with potential occupational exposure to blood, blood products and bodily fluids that may contain HBV (Public Health Agency, 2012). Workers at "significant" risk can be determined on an agency-by-agency basis, **but should always include those performing invasive procedures** (Health Canada Infection Control Guidelines, 2002).
b. The Saskatchewan Immunization Manual provides eligibility criteria and recommendations for hepatitis B vaccine for HCW[1]. Other employing agencies or occupational groups (e.g. corrections or policing) may have hepatitis B vaccine recommendations for their staff.
c. Post-HBV immunization antibody testing should be conducted as outlined in the Canadian Immunization Guide or the Saskatchewan Immunizaiton Manual[2]

In the community, HBV universal immunization program began in Saskatchewan in 1995 for individuals born in or after 1984. The immunization is provided to children in Grade 6. Refer to Saskatchewan Immunization Manual.[3]

Hepatitis C

There is no vaccine for hepatitis C; therefore, it is incumbent on individuals to ensure that they are taking personal protective measures to reduce their risk of exposure.

HIV

There is no vaccine for HIV; therefore, it is incumbent on individuals to ensure that they are taking personal protective measures to reduce their risk of exposure.

[1] http://www.ehealthsask.ca/services/manuals/Documents/sim-chapter7.pdf
[2] http://www.ehealthsask.ca/services/manuals/Pages/SIM.aspx
[3] http://www.ehealthsask.ca/services/manuals/Documents/sim-chapter5.pdf .

References

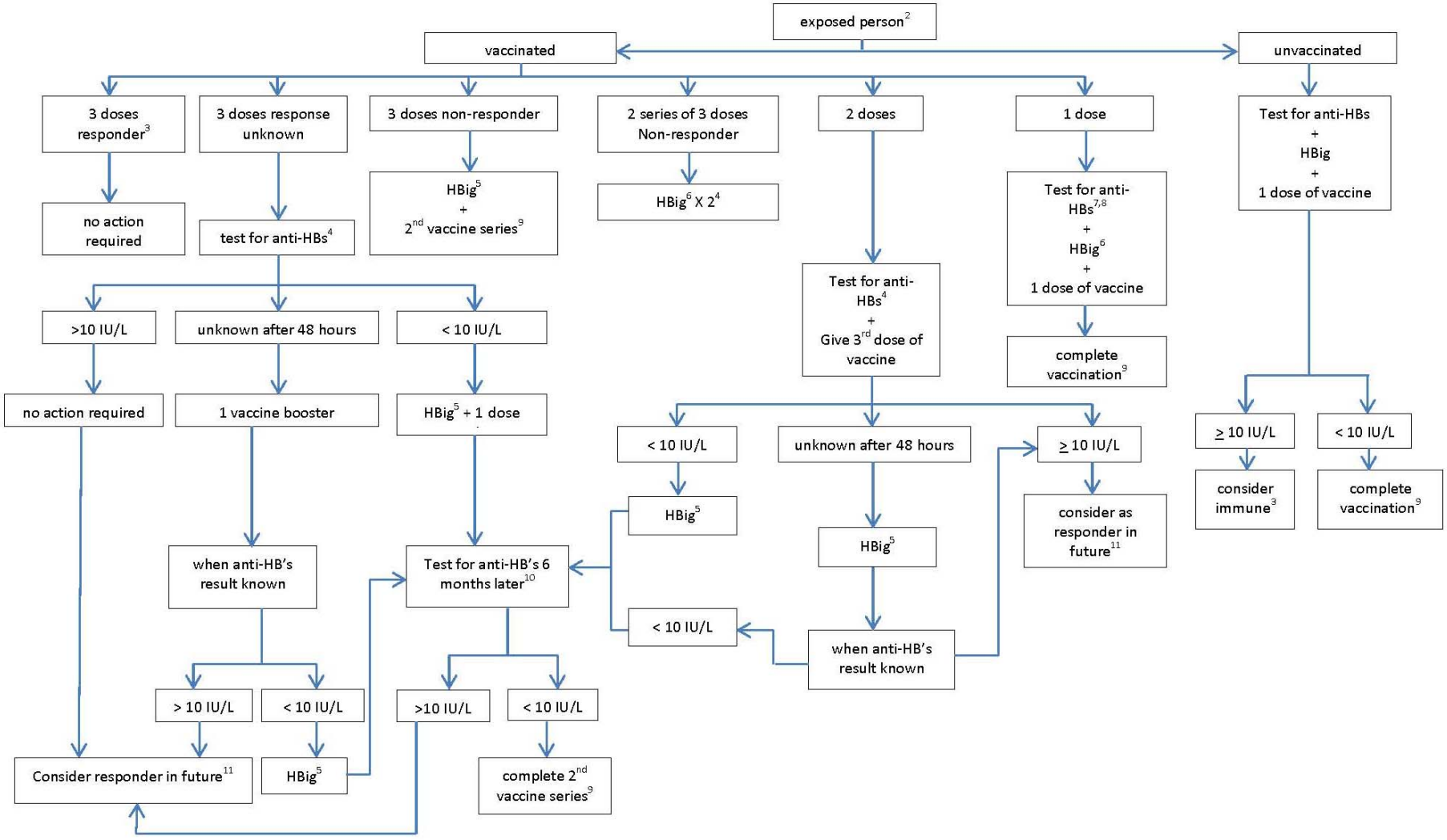
Health Canada. (2002). Infection control guidelines: Prevention and control of occupational infections in health care. *Canada Communicable Disease Report (CCDR), 28S1:1-264,* March 2002. Retrieved May, 2013 from http://publications.gc.ca/collections/Collection/H12-21-3-28-1E.pdf.

Public Health Agency of Canada. (2012). *Canadian immunization guide.* Retrieved May, 2013 from http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-hepb-eng.php#a4.

Appendix 8 – Management of Potential Exposures to Hepatitis B

Please see the following pages for the Management of Potential Exposures to Hepatitis B.

a) Management of individuals with percutaneous or mucosal exposure to an infected or high risk source[1]



[1] A known source is high risk if the person comes from a region highly endemic for HB; has sexual relations with multiple partners; has a partner infected with HB or at high risk of being so; is in close family contact with an infected person; uses injection drugs; or received blood or blood products prior to 1970. Wherever possible, the source should be tested. In the case of an unknown source, background circumstances may provide some indication of the degree of risk.

[2] Interventions are not required if the exposed person is known to be immune following HBV infection.

[3] Responder with a documented anti-HBs titre of at least 10 IU/L on prior testing.

[4] Determine anti-HBs titre as soon as possible. HBIg should be administered to susceptible individuals within 48 hours after exposure. The benefit of HBIg given more than 7 days after exposure is unknown.

[5] Omit administration of HBIg if the source is tested within 48 hours and the result is negative. Follow the non-infected source algorithm (refer to b).

[6] Give the second dose of HBIg 1 month after the first dose.

[7] Complete the vaccine series regardless of the anti-HBs titre. The anti-HBs titre may reassure the exposed individual about the immediate risk of becoming infected.

[8] Omit administration of HBIg if it is possible to obtain anti-HBs serology within 48 hours and a titre of at least 10 IU/L is confirmed.

[9] Determine anti-HBs titre 1 to 6 months after completion of the vaccine series.

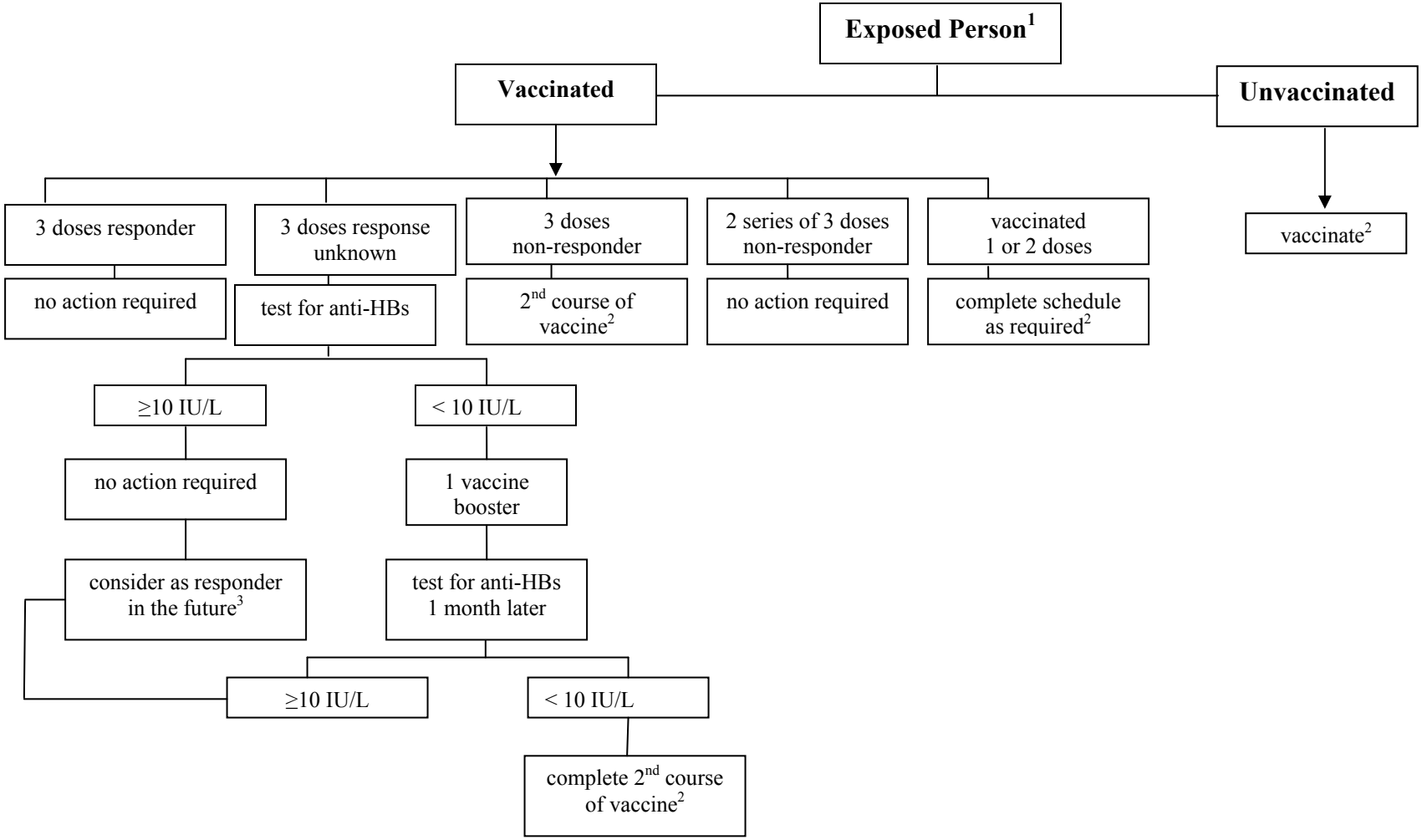
[10] Determination of anti-HBs titre should be delayed for 6 months to allow HBIg antibodies to wane.

[11] Except if person is immunocompromised, has chronic renal failure or is on dialysis in which case repeat serologic testing may be needed.

References

Public Health Agency of Canada. (2012). *Canadian immunization guide.* Retrieved January, 2013 from http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-hepb-eng.php#figure-2

b) Management of Individuals with percutaneous or mucosal exposure to an uninfected or low risk source



1. Interventions are not required if the exposed person is known to be immune to hepatitis B infection.
2. Determine anti-HBs titre 1 to 6 months after completion of the vaccine series.
3. Except if the person in immunocompromised, has chronic renal failure or is on dialysis in which case repeat serologic testing may be needed.

References

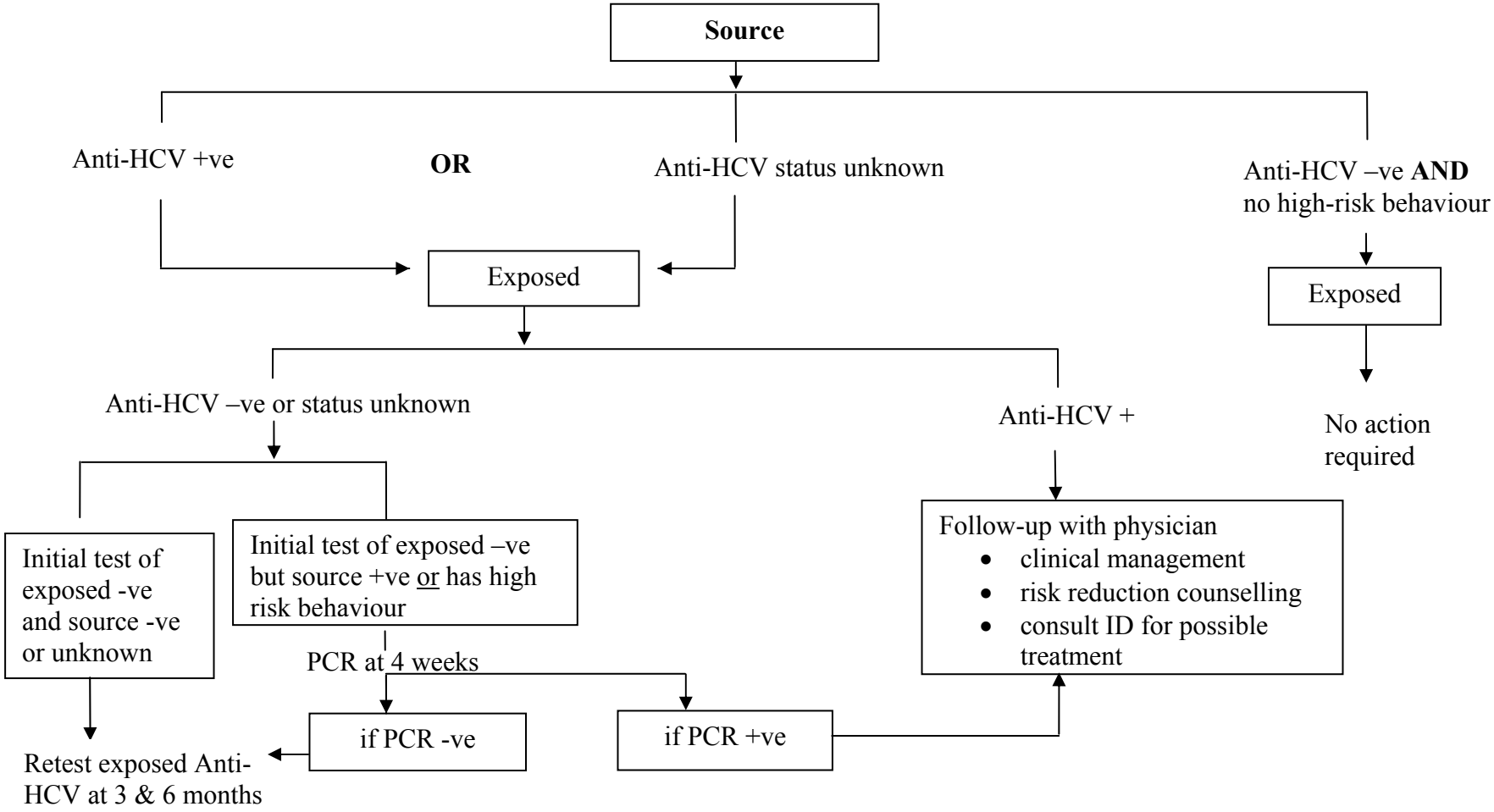
Public Health Agency of Canada. (2012). *Canadian immunization guide.* Retrieved January, 2013 from http://www.phac-aspc.gc.ca/publicat/cig-gci/p04-hepb-eng.php#figure-3

Appendix 9 – Management of Potential Exposures to Hepatitis C

Please see the following pages for the Management of Potential Exposures to Hepatitis C.

2. Management of Exposures to Body Fluids Potentially Infected with Hepatitis C

No effective post-exposure prophylaxis is available for HCV at this time (Winter 2012)



Appendix 10 – Monitoring Recommendations Following Exposures

Monitoring For Infection

The table below outlines the recommended tests for monitoring for infection with a blood borne pathogen that should be conducted on a person who was exposed to blood and body fluids. The approach depends on baseline test results for both the source and the exposed person at the time of the incident:

- If the source's baseline results are negative and he/she has no risk factors, then follow-up testing of the exposed person is not required.
- If the source's baseline results are positive or are unknown, follow up of the exposed person is outlined in this chart:

	Baseline (at time of exposure)	Month 1	Month 3	Month 6
HIV	√	√	√	
Hepatitis B				
Hep B Surface Antigen (HBsAg)	√		√	
Hep B Antibody[1] (anti-HBs)	√			
Hepatitis C				
Hep C Antibody (anti-HCV)	√	√	√	√
Hep C PCR (HCV PCR)		[2]		

- If the source tests positive on baseline testing, ensure the source receives appropriate counseling and follow-up.
- If the exposed person becomes positive for any BBP on follow-up testing, an ID Specialist should be consulted for any follow-up recommendations.

NOTE: ALL Positive results of source and exposed must be reported to the MHO as per *The Public Health Act, 1994.*

Monitoring While on PEP

In addition to testing for BBP infection as above, people on PEP for 28 days will require monitoring for side effects and blood tests for renal and liver function. Discuss with the ID Specialist for recommendations.

[1] Antibody testing is recommended at 1-6 months after completion of a vaccine series.
[2] Hepatitis C PCR is recommended if source is known Hepatitis C positive. If not known, antibody testing is recommended.

References

British Columbia Centre for Disease Control. (2010). *HIV laboratory testing: A resource for health professionals*. Retrieved May, 2013 from http://www.bccdc.ca/NR/rdonlyres/2982E293-BD82-436D-B193-F929B5CEEBEC/0/HIVTestinginBCResourceDocumentforHealthProfessionalsJune2010.pdf.

Heymann, D. L. (Ed.). (2008). *Control of communicable diseases manual* (19th ed.). Washington, DC: American Public Health Association.

New York State Department of Health AIDS Institute. (2012). *HIV prophylaxis following occupational exposure.* http://www.hivguidelines.org/wp-content/uploads/2012/12/hiv-prophylaxis-following-occupational-exposure-12-04-2012.pdf.

Appendix 11 – Roles and Responsibilities

Exposed Person

- To present to a health care facility as soon as possible following the exposure (ideally within 2 hours).
- To answer assessment questions. (Refer to Appendix 15 – Collection Use and Disclosure of Information).
- To provide samples for baseline testing for HIV, HBV, HCV, and STIs, if applicable.
- To follow HIV PEP recommendations and other prevention measures during the risk period.

Source Person

- To assist in providing information for the risk assessment (e.g., testing). (Refer to Appendix 15 – Collection Use and Disclosure of Information).
- If high risk or known positive, to provide information to the physician (attending physician or ID Specialist) on medical status (e.g., viral load, HIV medications currently taking) so appropriate follow-up and treatment of the exposed person can occur.

HIV PEP Kit Site Manager

- Manage HIV PEP Kits (e.g., monitor expiry dates, incorporate updated materials into existing kits upon direction of the Ministry of Health or of the regional Medical Health Officer [MHO]).

Attending Physician or Nurse Practitioner [RN(NP)] or Emergency Care Physician

- Obtain exposed person's informed consent. Refer to Appendix 15 – Collection use and Disclosure of Information.
- Evaluate the exposure incident and make decisions concerning prescription of HIV PEP, the need for hepatitis B post-exposure prophylaxis and any follow-up required for hepatitis C or STIs considering:
  - fluid exposure type;
  - type of injury/exposure;
  - risk of source including arranging for source testing. Appendix 14 – Source Patient Risk Assessment is provided to help determine risk factors.
- Complete all fields of the Exposure Incident Report Form for all exposures that meet the criteria of an exposures (Appendix 12 – Reporting Requirements), and fax completed form to family physician or RN(NP) (if exposed person identifies or has one) and to the Regional MHO.

If HIV PEP is Prescribed

- Review client's current medications on the PIP.
- Prescribe and provide exposed person the HIV PEP starter kit.
- Contact ID Specialist to discuss whether ongoing HIV PEP is required. This must be completed before the exposed person is "discharged from care" and recommendations of ID Specialist must be communicated to the exposed.
- If ID Specialist determines HIV PEP is needed for 28 days:
  - ER or family physician will write the prescription and fax to the pharmacy of client's choice. Write on the prescription: "PEP" and name of the ID Specialist who was contacted.
  - Fax pages 1, 2 and 3 of the Exposure Incident Report Form to ID Specialist to facilitate ID Specialist follow-up.

- Pharmacy may contact the physician to complete EDS or First Nation client approval forms.
- Complete WCB claim form and submit to WCB.
- Complete the HIV PEP Kit Replacement Form (enclosed within the kit) and send Page 1 to Ministry of Health and Page 2 to the Pharmacy Department, Royal University Hospital (as indicated on the form).

Family Physician

- Conduct follow-up on exposed and/or source patient in consultation with the ID Specialist.
- Complete outstanding Risk Assessment or lab testing.
- Make referral to Public Health for hepatitis B vaccination (if applicable).
- Prescribes the ongoing HIV PEP if required and not already provided by the ER physician. Application for EDS should be made to the Saskatchewan Drug Plan or to the Non-Insured Health Benefits Branch for those patients who have federal drug coverage.

Regional Occupational Health/Employee Health Services

- Receive all Exposure Incident Report Forms for health region staff experiencing an occupational exposure.
- Complete WCB claim form and submit to WCB.
- Track occupational exposures and do a root cause analysis and implement measures to prevent future incidents.
- Provide employees with support and counselling as appropriate.

- Ensure follow-up tests of the employee are conducted in partnership with the family physician.
- Ensure health care workers have access to pre-exposure hepatitis B immunization.
- Maintain staff immunization records including anti-HBs test results.
- Facilitate hepatitis B vaccinations for staff who were non-immune at the time of the exposure.
- Facilitate coverage with WCB.
- Provide the Regional MHO with a summary of incidents on an annual basis (or as directed by the Regional MHO).

Regional Communicable Disease Coordinator or Designate

- Receive all Exposure Incident Report Forms.
- Redirect forms regarding Health Region staff exposures to the Regional Occupational Health/Employee Health Services.
- Redirect forms regarding First Nations individuals living on reserve to FNIHB/NITHA as appropriate.
- Tracks the number of exposures, HIV PEP Kit initiation and ongoing HIV PEP usage by exposure setting and reports to the Ministry on an annual basis (see Appendix 12 – Reporting Requirements).
- Follow-up with the exposed individuals in all non-occupational (community) settings and all occupational settings (excluding health region staff exposures).
- Reinforce education provided in the ER and in the patient information sheet(s) (Appendix 6a – Patient Information Following an Exposure to Blood and Body Fluids and Appendix 6b – Patient Information for HIV PEP). Refer to Section 6 – Counselling and Follow-Up.
- Ensure the exposed is aware of the recommended follow-up as outlined in Patient Information Following an Exposure to Blood and Body Fluids and direct them to follow-up with a physician of their choice.
- Fax Exposure Incident Report Form to exposed person's family physician.
- Facilitate referral to other supportive services and harm reduction services as necessary.
- Provide hepatitis B immunization records on request.
- Assist in arranging/providing hepatitis B immunizations as necessary.
- May work with the **HIV Case Manager** to assist the client in any follow-up that they require (e.g., follow-up testing, referrals to other agencies, etc).
- Ensure all reporting elements are included on the Exposure Incident Report Form.

Medical Health Officer

- To provide advice to the ER physician on the initiation of HIV PEP upon request by the physician.
- To receive summary reports of occupational exposures from the Regional Occupational/Employee Health Services on an annual basis or as directed by the Regional MHO.
- To track all non-occupational (community) and occupational exposures (involving non-health region staff) in the health region.
- To provide statistics to the Ministry of Health on an annual basis (see Appendix 12 – Reporting Requirements).

ID Specialist

- To provide consultation to family physicians or ER physicians upon request and to authorize the ongoing use of HIV PEP.
- To provide ongoing follow-up of individuals requiring the 28 day course of HIV PEP.

Community Pharmacist

- To fill HIV PEP prescriptions for the client.
- To apply for EDS from the Saskatchewan Drug Plan (306-787-8744 or 1-800-667-2549 if after hours) if this has not already been done by the ER or family physician.
    - The Drug Plan will need to know the prescription is for PEP and the name of the ID Specialist who has authorized the need for ongoing PEP.

Workers' Compensation Board

- To cover the cost of HIV PEP Kits and ongoing medications for circumstances where the exposure occurred while the person was working.
- Receives WCB claims and assigns file number to each individual WCB claim.
- Provides Ministry of Health with claim numbers to enable the Ministry to process invoices.
- Submits payment to Ministry of Health for the cost of HIV PEP starter kits prescribed for WCB clients.

Royal University Hospital Pharmacy

- To assemble HIV PEP Kits on behalf of the Ministry of Health and to distribute to HIV PEP Kit sites upon receipt of HIV PEP Kit Replacement Form. Includes copy of HIV PEP Kit Replacement request with the shipment.

- Maintains record of expired kits and HIV PEP kits used by health region and sends monthly record to Population Health Branch, Ministry of Health.
- Invoices Population Health Branch, Ministry of Health for HIV PEP kits assembled and distributed. Details included in the summary of use:
  - date shipped;
  - site shipped to;
  - date the kits were used or expired;
  - if a complete kit or in the instance of a partial kit, which medication was replaced;
  - cost of the replacement;
  - reference number from the HIV PEP Kit Replacement Form.
- Provide an annual record of HIV PEP medication distribution within regions at the end of April including:
  - the date of medication distribution;
  - the medication name and the quantity of the medication (in tablets) that were distributed; and
  - the name of the site to which the medications or kits were sent to.

Ministry of Health

- Covers the cost of HIV PEP Kits and ongoing HIV PEP medication when non-occupational exposures occur.
- Reviews and updates the program to ensure that it reflects the most current guidelines and protocols.
- Invoices WCB or other worker insurer for the cost of starter HIV PEP kit prescribed for high risk exposures in the workplace.
- Compiles aggregate data on HIV PEP Kit usage based on statistics submitted by Health Regions and First Nations jurisdictions and reports back to the regional health authorities and the HIV Provincial Leadership Team on an annual basis.

Appendix 12 – Reporting Requirements

I. Reports to the Regional Medical Health Officer

Exposures that have been assessed by the attending physician must be reported to the Regional MHO when the following criteria are met:

1. The fluid the person was exposed to is capable of transmitting blood borne pathogens. See Guidelines for Management of Exposures to Blood or Body Fluids, Table 2.2.
   AND
2. The fluid contacted the exposed person in such a way that would allow for transmission of blood borne pathogens:
   a. An object with the body fluid punctured or broke the skin of the exposed person
      OR
   b. the fluid came in contact with mucous membrane of the exposed person (e.g., occupational – splashes into eye, mouth or onto broken skin or non-occupational – sexual exposure).

In order to meet the reporting requirements, the Exposure Incident Report Form must be faxed to the MHO.

II. Reports to the Ministry of Health

A summary of the following information by exposure setting (occupational, non-occupational, sexual, lifestyle) shall be submitted by the MHO on the attached report form to the Ministry of Health on an annual basis:

- number of exposures;
- number of exposures where a PEP Kit was provided; and
- number of exposures where ongoing PEP was provided.

Reporting timeframe is for exposures from January 1 to December 31. Reports should be submitted by March 15.

In addition to the above reporting, it is expected that regions will evaluate the use of HIV PEP kits within their region to ensure appropriate use of kits.

Annual Report on Blood and Body Fluid Exposures (Jan 1-Dec 31)

Reporting Authority _____ **Year:** _____

Exposure Setting	Exposures	PEP Kit Initiation	Ongoing PEP
Occupational			
Non-occupational			
Sexual			
Lifestyle			
Totals 0		0	0

Submitted By: _____

Appendix 13 – Expert Consultation Resources

Expert Consultation Resources	
Regional MHOs' on call	Contact regional hospital for appropriate on call number
ID Specialist on call	Contact regional hospital for appropriate on-call number
Saskatchewan Health Line	811
Royal University Hospital Pharmacy Information Services (re: HIV PEP Kits)	306-655-6666
Workers' Compensation Board	306-787-4370 or 1-800-667-7590
Regional Occupational Health and Safety Department	Contact regional hospital for appropriate number
Mental Health and Addiction Services	Contact regional hospital for appropriate on call number Or see Section 6 – Behavioral Support Risk Reduction
Traumatic Events Response Team	Contact regional hospital for appropriate number
Sexual Assault Response Team	Contact regional hospital for appropriate number
Regina Qu'Appelle Health Region Infectious Diseases Clinic	306-766-3915 Monday-Friday office hours; after hours 306-766-4444 for ID Specialist on call
Saskatoon Health Region Infectious Diseases Clinic (Positive Living Program)	306-655-8008 for ID Specialist on call

Appendix 14 – Source Patient Risk Assessment

This tool is designed to be used by the health care provider to help assess the risk that the source has a blood borne pathogen. The information gained is intended to assist with decision-making by attending health care providers only and must not be shared with the exposed person.

Ensure the source understands the information will be:

- used determine if the source is considered high risk for a blood borne pathogen
- shared with the exposed person's care provider so the most appropriate follow-up of the exposed can be provided.

The source should be informed that confidentiality of this information will be maintained and will not be shared with the exposed person.

1. Has the source ever had a tattoo, ear or skin piercing, acupuncture, electrolysis, needle stick injury, skin graft or come into contact with someone else's blood? ❑ Yes ❑ No
2. Has the source moved to Canada? ❑ Yes ❑ No
   If yes, where did they come from? _____
   NOTE to Health Care Practitioner: Consider if source country is endemic for hepatitis B or HIV.
3. Has the source:
   - had sex, even once, with someone who has had multiple sexual partners? ❑ Yes ❑ No
   - had sex, even once, for which they paid, or accepted, money or drugs? ❑ Yes ❑ No
   - had syphilis, chlamydia, gonorrhea, or any other STI? ❑ Yes ❑ No
   - if male, had sex with another male, even once? ❑ Yes ❑ No
   - shared needles or taken street drugs by needle? ❑ Yes ❑ No
   - had sex with anyone who has shared needles or taken street drugs by needle? ❑ Yes ❑ No
   - been the sexual partner of someone who has HIV/AIDS, hepatitis B or C? ❑ Yes ❑ No
   - been in prison? ❑ Yes ❑ No
4. Has the source ever had jaundice (other than at birth), hepatitis or liver disease or had a positive test for hepatitis B or C? ❑ Yes ❑ No
5. Has the source had an HIV/AIDS test before? ❑ Yes ❑ No
   If yes, when? _____
   What was the result? ❑ Positive ❑ Negative
6. In the last 12 months, has the source had any of the following symptoms which are continuous and unexplained? ❑ Yes ❑ No
   - weight loss, night sweats, fever, diarrhea or cough
   - lumps in the armpits, neck or groin
   - coloured patches on skin or inside mouth

Results of the Risk Assessment are to be documented on the corresponding box on page 2 of the Exposure Incident Report Form

RISK ASSESSMENT OF SOURCE IF HIV NEGATIVE OR UNKNOWN		
Consideration of risk is based on source's IV drug use, participation in high-risk sexual practices, hepatitis C status, and if he or she is from an HIV endemic country. Refer to Section 2 – Risk Assessment and Appendix 14 – Source Patient Risk Assessment	**Indicate if assessment of source risk is considered to be High or Low**	
	High	**Low**

Appendix 15 – Collection Use and Disclosure of Information

Exposed Person's Information

The exposed person must be informed of the purpose for the collection of information requested on the **Exposure Incident Report Form** and who the information will be disclosed to.

The purpose for collecting information (about the exposure and the source, serology for the diseases, and risk factors) of the exposed person is to:

1. Determine what course of treatment is required following the exposure.
2. Determine what additional services or resources the individual may benefit from.
3. Determine what follow-up is required (education, hepatitis B vaccination, and follow-up serology).
4. Monitor exposures using de-identified information and determine if prevention programs can be implemented.

Follow-up services are provided by various health care providers. In order to provide follow-up of the exposed person, information will be disclosed to:

1. The local MHO when it meets the definition of an exposure.
2. The MHO will redirect the information as appropriate to:
   a. The MHO for the area in which the exposed person resides (FNIHB, NITHA, or another region), OR
   b. In the event of an occupational exposure of a health region employee, to the Health Region Occupational Health/Employee Health Department.
3. The exposed person's family physician or nurse practitioner.
4. An ID Specialist as part of the referral (only when referral is necessary).

An **HIV PEP Kit Replacement Form** is completed and returned to the Ministry of Health when the exposed person has been provided an HIV PEP Kit.
The information collected on this form includes:

- Exposed persons name, Health Services Number,
- Exposure category (occupational or non-occupational)
- Exposure date
- Health Region
- PEP Kit Site
- WCB #

This information is used by the Ministry of Health for accounting purposes and to provide required information to WCB and NIHB for exposures that are eligible for coverage.

Source Patient Information

The source person, when identified and available for interviewing, must provide informed consent for collection, use and disclosure of their personal health information. They must be informed of how the information collected will be used and who it will be disclosed to. The Appendix 16 - Consent for Source Patient Testing Following a Blood/Body Fluid Exposure should be used to obtain informed consent.

The purpose for collecting information (risk assessment questions and blood test results) is to determine the most appropriate treatment of the exposed person.

Identifying information (e.g. name, date of birth, health services number) of the source person will only be disclosed to:

1. The exposed person's attending physician in order to conduct the risk assessment of the source.
2. The Regional MHO (Exposure Incident Report Form) as part of the consultation in managing the exposed person.

NOTE: Identifying information of the source will not be disclosed by the health care provider to the exposed person or the exposed person's family physician. In the event that the source person is HIV positive, a Consent for Release of Information should be obtained in order for the source person's physician to share additional information about the source (e.g. viral loads, CD4 counts, current treatment, etc.) with the exposed person's ID Specialist in order to provide the most appropriate treatment to the exposed.

Results of the risk assessment and blood tests pertaining to the source person will be disclosed to:

1. The exposed person's family physician to determine the most appropriate care of the exposed person.
2. The Regional MHO (Exposure Incident Report Form) as part of the consultation in managing the exposed person.
3. In the event of an exposure of a health region employee, with the regional Occupational/Employee Health Department to determine follow-up required for the exposed employee.
4. Shared as part of the referral to the exposed person's ID Specialist so they can determine the most appropriate ongoing follow-up for the exposed person (i.e. if any change in HIV PEP medications is required).
5. The exposed person so they can make an informed decision of the treatment to proceed with based on the risk of the exposure.

If, in the professional opinion of the care provider, it is deemed that disclosure without consent fits the criteria of section 27(4)(a) of *The Health Information Protection Act*, information may be disclosed to appropriate care providers. In these instances, the rationale for the need to disclose this information must be documented. Documentation must also include details of who the information was disclosed to.

Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure

The source must express an understanding of the following:

- An individual has been exposed to the source's blood/body fluids.
- In order to assist in the care and management of the exposed person, the source will be asked a number of personal questions to assess if there is a risk for hepatitis B, hepatitis C and human immunodeficiency virus (HIV) which causes AIDS.
- A blood test is requested to determine if there is risk for the exposed person.
- The source's attending physician will inform them of the test results and arrange appropriate follow-up.
- Results of the risk assessment and blood test will be sent to the care providers of the exposed person (their attending physician in the Emergency Department, family physician and the Occupational Health/Employee Health Department [if it is health region employee involved in a workplace injury]). These care providers will notify the exposed person of the results so they can obtain necessary treatment and follow-up.
- Identifying information (name, date of birth, health services number) ***will not*** be shared with the exposed individual, nor with their family physician or the occupational health/employee health department.
- Identifying information ***will*** be shared with the MHO as a consultant in conducting the risk assessment.
- Physicians are required by *The Public Health Act, 1994* to report information including name, gender, age and risk factors to the MHO of positive tests. Current and past sexual/drug use partners of positive cases will be offered a test.

The source should also be provided with general information for informed consent which includes:

Testing process:

- description of HIV infection, transmission and the window period;
- meaning of positive and negative HIV test results;
- need for further testing based on risks.

Reasons to be tested:

- allows earlier access to services and care;
- helps people live longer healthier lives with treatment;
- helps people become actively involved in their own care;
- decreases worry about possible infection;
- helps prevent the spread of HIV to others.

Appendix 16 – Consent for Source Patient Testing Following a Blood/Body Fluid Exposure

Other considerations:

- how the results will impact the client;
- support, assistance, care and treatment options are available and will be offered;
- how to contact the client when results are ready;
- assess risk factors and develop a plan to minimize potential for transmission while awaiting results; and
- the client has the right to refuse testing.

Consent is verbal, informed, voluntary and documented.

Appendix 17 – Decision Making

Please see the following pages for the Decision-Making Algorithms.

Guidelines for the Management of Exposures to Blood and Body Fluids

MOST EXPOSURES DO NOT WARRANT HIV PEP, HOWEVER, IT IS STILL RECOMMENDED TO PROVIDE THE INDIVIDUAL WITH BASELINE TESTING AND FOLLOW-UP

This includes:

BASELINE TESTING:

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)

EDUCATION

- Supportive counselling
- Safer sex education
  - Patients should have protected sex with partners until their results of final HIV antibody testing is known to be negative
- Blood and Body Fluid Precaution Education (to take precautions until final HIV test result is known). See Section 6 – Counselling and Follow-Up

FOLLOW-UP

- HBV post-exposure prophylaxis (vaccination and HBIg if indicated)
- Refer the exposed person to their Family physician
- If source is known positive for HIV, HBV or HCV or their status is unknown complete follow-up testing as per table below
- Send completed Exposure Incident Report Form to MHO
- For Health Region Employee, refer to Regional Occupational/Employee Health Department

SKIN & MUCOUS MEMBRANE EXPOSURE

FIRST AID

- Skin – wash site liberally with soap and water
- Eyes – irrigate gently with sterile saline
- Mouth – rinse with water
  - Tooth brushing is NOT recommended

Exposed individuals should be assessed URGENTLY

If indicated, HIV PEP should commence as soon as possible, preferably within 2 hours of an exposure

RISK ASSESSMENT

- When did exposure occur
- Nature of exposure (type of fluid and amount)
- Duration of exposure

CONSIDER HIV PEP IF THE FOLLOWING CONDITIONS ARE MET:

If there is exposure of NON-INTACT skin or mucous membrane by blood or other body fluids (excluding urine, saliva & faeces)
AND
The source is KNOWN to be HIV positive
OR
The source is at HIGH RISK for HIV
AND
The patient consents to PEP
AND
The time from exposure to HIV PEP is < 72 hours

Consider HIV PEP **NO**

Consider HIV PEP **YES**

The HIV PEP Kit may be started if there is a delay in obtaining source information

SOURCE DETAILS

HIV STATUS OF SOURCE UNKNOWN

If available and consents:

- Test for HIV, HBV & HCV
  - Consider possibility of source window period

HIV STATUS OF SOURCE KNOWN TO BE POSITIVE

Information that is helpful for the ID Specialist:

- HIV viral load
- Current and past anti-HIV drug therapy AND reasons for stopping/changing regimen
- HBV & HCV status

If HIV positive source, administer 1st dose of HIV PEP regimen to the exposed person (if not already given)

EXPOSED PERSON'S DETAILS

- Medical history including all drugs
- Review for drug interactions on PIP
- Vaccination history for HBV
- Previous HIV test results
- In women, ask about pregnancy or breast feeding

DISCUSS WITH ID SPECIALIST AT TIME OF INCIDENT TO DETERMINE THE NEED FOR ONGOING HIV PEP AND FOLLOW-UP

HBV PEP

- Assess and manage as per Canadian Immunization Guide See Appendix 8

BASELINE BLOODS

- HIV antibodies
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)
- Routine biochemistry & LFTs
- Complete blood count & differential
- Pregnancy test if applicable

EDUCATION

- Likely side-effects of HIV PEP. See Appendix 5
- The need for 100% adherence
- Signs and symptoms of HIV seroconversion illness
- Blood and Body Fluid Precautions See Section 6 – Counselling and Follow-Up
- Patients should have protected sex with partners until results of final HIV antibody testing is known

FOLLOW-UP

- Refer exposed person to Family Physician and/or ID Specialist
- Send completed Exposure Incident Report Form to MHO

Follow-up Testing	Month 1	Month 3	Month 6
HIV	√	√	
HBsAg		√	
Anti-HCV	√	√	√
Hep C PCR	* - See App 10		

Guidelines for the Management of Exposures to Blood and Body Fluids

MOST EXPOSURES DO NOT WARRANT HIV PEP, HOWEVER, IT IS STILL RECOMMENDED TO PROVIDE THE INDIVIDUAL WITH BASELINE TESTING AND FOLLOW-UP

This includes:

BASELINE TESTING:

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)

EDUCATION

- Supportive counselling
- Safer sex education
  - Patients should have protected sex with partners until their results of final HIV antibody testing is known to be negative
- Blood and Body Fluid Precaution Education (to take precautions until final HIV test result is known). See Section 6 – Counselling and Follow-Up

FOLLOW-UP

- HBV post-exposure prophylaxis (vaccination and HBIg if indicated)
- If the exposure was from a sharp object that may have had contact with soil, tetanus vaccination should be confirmed and prophylaxis offered as per standard practice
- Refer the exposed person to their Family physician
- If source is known positive for HIV, HBV or HCV or their status is unknown complete follow-up testing as per table below
- Send completed Exposure Incident Report Form to MHO
- For Health Region Employee, the MHO will refer to Regional Occupational/Employee Health Department

NEEDLE STICK INJURY (NSI)

FIRST AID

- Allow the wound to bleed freely
- Wash liberally with soap & water

Exposed individuals should be assessed URGENTLY

If indicated, HIV PEP should commence as soon as possible, preferably within 2 hours of an exposure.

RISK ASSESSMENT

- When did exposure occur
- Geographic location of exposure (e.g. hospital versus community)
- Nature and extent of the injury
  - Deep penetrating injury
  - Superficial injury
  - Through clothing/gloves
  - Volume of blood in syringe
  - Was the needle/syringe freshly used

USUALLY HIV PEP IS NOT INDICATED FOR COMMUNITY NSIs.

FOR HEALTH CARE NSIs HIV PEP MAY BE CONSIDERED IF THE FOLLOWING CONDITIONS ARE MET:

The syringe has been freshly used/discarded
AND
There is visible fresh blood on the needle or syringe
AND
The source is KNOWN to be HIV positive
OR
The source is at HIGH-RISK for HIV
AND
The patient consents to PEP
AND
The time from exposure to PEP is < 72 hours:

Consider HIV PEP **NO**

Consider HIV PEP **YES**

Follow-up Testing	Month 1	Month 3	Month 6
HIV	√	√	
HBsAg		√	
Anti-HCV	√	√	√
Hep C PCR	* - See App 10		

The HIV PEP Kit may be started if there is a delay in obtaining source information

SOURCE DETAILS

HIV STATUS OF SOURCE UNKNOWN
If available and consents:

- Test for HIV, HBV & HCV
  - Consider possibility of source window period

HIV STATUS OF SOURCE KNOWN TO BE POSITIVE
Information that is helpful for the ID Specialist:

- HIV viral load
- Current and past anti-HIV drug therapy AND reasons for stopping/changing regimen
- HBV & HCV status

If HIV positive source, administer 1st dose of HIV PEP regimen to the exposed person (if not already given)

EXPOSED PERSON'S DETAILS

- Medical history including all drugs
- Review for drug interactions on PIP
- Vaccination history for tetanus and HBV
- Previous HIV test results
- In women, ask about pregnancy or breast feeding

DISCUSS WITH ID SPECIALIST AT THE TIME OF THE INCIDENT TO DETERMINE THE NEED FOR ONGOING HIV PEP

HBV PEP

- Assess the need for HBIg and hepatitis B vaccine for all percutaneous exposures using the flowcharts in Appendix 8
- HBIg is not usually recommended for Community NSI. See Appendix 8 (b)

TETANUS PROPHYLAXIS

- If the exposure was from a sharp object that may have had contact with soil, tetanus vaccination should be confirmed and prophylaxis offered as per standard practice

BASELINE BLOODS

- HIV antibodies
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)
- Routine biochemistry & LFTs
- Complete blood count & differential
- Pregnancy test if applicable

EDUCATION

- Likely side-effects of HIV PEP. See Appendix 5
- The need for 100% adherence
- Signs and symptoms of HIV seroconversion illness
- Blood and Body Fluid Precautions See Section 6 – Counselling and Follow-Up
- Patients should have protected sex with partners until results of final HIV antibody testing is known

FOLLOW-UP

- Refer exposed person to Family Physician and/or ID Specialist
- Send completed Exposure Incident Report Form to MHO

Guidelines for the Management of Exposures to Blood and Body Fluids

MOST EXPOSURES DO NOT WARRANT HIV PEP, HOWEVER, IT IS STILL RECOMMENDED TO PROVIDE THE INDIVIDUAL WITH BASELINE TESTING AND FOLLOW-UP

This includes:

BASELINE TESTING:

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)
- STI screening

EDUCATION

- Referral for supportive and/or behavioural counselling
- Safer sex education
  - Patients should have protected sex with partners until their results of final HIV antibody testing is known to be negative
- Blood and Body Fluid Precaution Education (to take precautions until final HIV test result is known). See Section 6 – Counselling and Follow-Up

FOLLOW-UP

- HBV post-exposure prophylaxis (vaccination and HBIg if indicated)
- Refer the exposed person to their Family physician
- Repeat STI Screening
- If source is known positive for HIV, HBV or HCV or their status is unknown, complete follow-up testing as per table below
- Send completed Exposure Incident Report Form to MHO

SEXUAL EXPOSURE

(assault or consensual* exposure)

*** Refer to Sections 5a and 5b**

FIRST AID

- Rectum or vagina – douching is NOT recommended
- Mouth – rinse with water
  - Tooth-brushing is NOT recommended

Exposed individuals should be assessed URGENTLY

If indicated, HIV PEP should commence as soon as possible, preferably within 2 hours of an exposure.

RISK ASSESSMENT

- Date & time of exposure
- Nature of exposure (eg. oral, vaginal, anal)
- Concurrent STI in exposed or source
- Trauma from the exposure

CONSIDER HIV PEP IF THE FOLLOWING CONDITIONS ARE MET:

Unprotected anal or vaginal sex
AND/OR
Unprotected receptive oral sex with ejaculation
AND
The source is KNOWN to be HIV positive
OR
The source is at HIGH RISK for HIV
AND
The patient consents to PEP
AND
The time from exposure to PEP is < 72 hours

NOTE: Unprotected sex is defined as no condom used or condom slippage/breakage

Consider HIV PEP **NO**

Consider HIV PEP **YES**

Follow-up Testing	Month 1	Month 3	Month 6
HIV	√	√	
HBsAg		√	
Anti-HCV	√	√	√
Hep C PCR	* - See App 10		

The HIV PEP Kit may be started if there is a delay in obtaining source information

SOURCE DETAILS

HIV STATUS OF SOURCE UNKNOWN

If available and consents:

- Test for HIV, HBV & HCV
  - Consider possibility of source window period

HIV STATUS OF SOURCE KNOWN TO BE POSITIVE

Information that is helpful for the ID Specialist:

- HIV viral load
- Current and past anti-HIV drug therapy AND reasons for stopping/changing regimen
- HBV & HCV status (anti-HBs, HBsAg, anti-HCV)
- Any concurrent STI

If HIV positive source, administer 1st dose of HIV PEP regimen to the exposed person (if not already given)

EXPOSED PERSON'S DETAILS

- Medical history including all drugs.
- Review for drug interactions on PIP
- Vaccination history for HBV
- Previous HIV test results
- In women, ask about pregnancy or breast feeding

DISCUSS WITH ID SPECIALIST AT TIME OF THE INCIDENT TO DETERMINE THE NEED FOR ONGOING HIV PEP

HBV PEP

- Assess and manage as per Canadian Immunization Guide See Appendix 8

BASELINE BLOODS

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology (anti-HBs, HBsAg, anti-HCV)
- STI Screening
- Routine biochemistry & LFTs
- Complete blood count & differential
- Pregnancy test if applicable

EDUCATION

- Likely side-effects of HIV PEP. See Appendix 5
- The need for 100% adherence
- Signs and symptoms of HIV seroconversion illness
- Blood and Body Fluid Precautions See Section 6 – Counselling and Follow-Up
- Patients should have protected sex with partners until results of final HIV antibody testing is known

FOLLOW-UP

- Refer exposed person to Family Physician and/or ID Specialist.
- Send completed Exposure Incident Report Form to MHO
- Follow-up STI Screening

Guidelines for the Management of Exposures to Blood and Body Fluids

MOST EXPOSURES DO NOT WARRANT HIV PEP, HOWEVER, IT IS STILL RECOMMENDED TO PROVIDE THE INDIVIDUAL WITH BASELINE TESTING AND FOLLOW-UP

This may include:

BASELINE TESTING:

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology
- HBV vaccination if indicated

EDUCATION

- Safer injecting education and information on available Needle Exchange Programs
- Blood and Body Fluid Precaution Education (to take precautions until final HIV test result is known). See Section 6 – Counselling and Follow-Up
  - ➢ Patients should have protected sex with partners until their results of final HIV antibody testing is known to be negative
- Referral for supportive and/or behavioural counselling

FOLLOW-UP

- Drug & alcohol referral
- HBV post-exposure prophylaxis (vaccination and HBIg if indicated)
- Tetanus prophylaxis if the exposure was from a sharp object that may have had contact with soil
- Refer the exposed person to their Family physician
- If source is known positive for HIV, HBV or HCV or their status is unknown complete follow-up testing as per table below
- Send completed Exposure Incident Report Form to MHO

NEEDLE SHARING EVENT

(Refer to Lifestyle Exposure Section 5b pg 2-3)

FIRST AID

- Allow the wound to bleed freely
- Wash liberally with soap & water

Exposed individuals should be assessed URGENTLY

If indicated, HIV PEP should commence as soon as possible, preferably within 2 hours of an exposure.

RISK ASSESSMENT

- When did exposure occur
- Nature of exposure (from the event they are concerned about)

CONSIDER PEP IF THE FOLLOWING CONDITIONS ARE MET

There has been an episode of needle sharing
AND
The syringe has been freshly used
AND
There is visible blood on the needle or syringe
AND
The source is KNOWN to be HIV positive
OR
The source is at HIGH RISK for HIV
AND
The patient consents to PEP
AND
The time from the event of concern to PEP is < 72 hours

Consider HIV PEP **NO**

Consider HIV PEP **YES**

Follow-up Testing	Month 1	Month 3	Month 6
HIV	√	√	
HBsAg		√	
Anti-HCV	√	√	√
Hep C PCR	* - See App 10		

The HIV PEP Kit may be started if there is a delay in obtaining source information

SOURCE DETAILS

HIV STATUS OF SOURCE UNKNOWN

If available and consents:

- Test for HIV, HBV & HCV
  - ➢ Consider possibility of source window period

HIV STATUS OF SOURCE KNOWN TO BE POSITIVE

Information that is helpful for the ID Specialist:

- HIV viral load
- Current and past anti-HIV drug therapy AND reasons for stopping/changing regimen
- HBV & HCV status

If HIV positive, administer 1st dose of HIV PEP regimen to the exposed person (if not already given)

EXPOSED PERSON'S DETAILS

- Medical history including all drugs
- Review for drug interactions on PIP
- Vaccination history for HBV
- Previous HIV test results
- In women, ask about pregnancy or breast feeding

DISCUSS WITH ID SPECIALIST WITHIN 24 HOURS TO DETERMINE THE NEED FOR ONGOING HIV PEP

HBV PEP

- Assess and manage as per Canadian Immunization Guide See Appendix 8

BASELINE BLOODS

- HIV antibodies (pre-test counselling required)
- Hepatitis B & C serology
- Routine biochemistry & LFTs
- Complete blood count & differential
- Pregnancy test if applicable

EDUCATION

- Likely side-effects. See Appendix 5
- The need for 100% adherence
- Signs and symptoms of HIV seroconversion illness
- Safer injecting education (Harm Reduction Education)
- Blood and Body Fluid Precautions See Section 6 – Counselling and Follow-Up
- Patients should have protected sex with partners until results of final HIV antibody testing is known

FOLLOW-UP

- Refer exposed person to Family Physician and/or ID Specialist
- Send completed Exposure Incident Report Form to MHO