October 2018 (revised May 2019)

# Post-exposure Prophylaxis for HIV, HBV and HCV

INTEGRATED PROTOCOL FOR MANAGING EXPOSURES TO BLOOD AND BODY FLUIDS IN MANITOBA

MANITOBA HEALTH, SENIORS AND ACTIVE LIVING | Public Health Branch



# Developed by the Post-Exposure Prophylaxis Protocol Update Working Group DISCLAIMER: This protocol is not meant to serve as a textbook and therefore deliberately provides little, if any, explanation or background information. It is designed as a quick reference guide in order to rapidly acquaint the intended user with post-exposure situations and how to manage them. Considerable care was taken in ensuring that recommendations accurately reflect current practice standards. Nevertheless, users of this protocol are urged to confirm that the information contained herein is correct. Manitoba Health, Seniors and Active Living accepts no responsibility for any inaccurate or misleading information, nor does it guarantee the success of any prophylactic interventions described.

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#### CHANGES FROM THE PRE-AMENDED (OCTOBER 2018) VERSION

Page no.	Section affected	Change/s
v	This section	Added
5	Table 2	Further simplified by lumping together 'incompletely vaccinated' and 'unvaccinated' categories
		Inserted recommendation for testing for HBsAg and anti-HBc at 6 months post-exposure, where appropriate
12	Early HIV PEP Discontinuation	References to 'nPEP' were edited to 'PEP' as they pertain to both occupational as well as non-occupational PEP.
12	3.2	Inserted a brief description of HIV testing options in Manitoba
IX	APPENDIX C	Added. Information appearing in subsection 'More Laboratory Testing' under section 3.2 (HIV Laboratory Testing) of the October 2018 version were moved to Appendix C, with some amendments.
XI	APPENDIX D	Renamed from 'APPENDIX C'. Cross-references throughout text were edited accordingly.
		Inserted web links to a couple more resources

#### **ABBREVIATIONS**

3TC Lamivudine

anti-HBc Antibody to hepatitis B core antigen

anti-HBs Antibody to hepatitis B surface antigen

anti-HCV Hepatitis C antibody

ARV Antiretroviral

CPL Cadham Provincial Laboratory

EIA Enzyme-linked immunosorbent assay

ER Emergency room

FNIHB First Nations Inuit Health Branch

FTC Emtricitabine

HBIG Hepatitis B Immunoglobulin

HBsAg Hepatitis B surface antigen

HBV Hepatitis B virus

HCP Health care provider

HCV Hepatitis C virus

HIV Human immunodeficiency virus

HSC Health Sciences Centre

ID Infectious diseases

LPV/r Ritonavir-boosted lopinavir

MHSAL Manitoba Health, Seniors and Active Living

MSM Men who have sex with men

NAAT nucleic acid amplification test

nPEP Non-occupational post-exposure prophylaxis

NRTI Nucleoside reverse-transcriptase inhibitor

OH Occupational health

OHS Occupational health and safety

oPEP Occupational post-exposure prophylaxis

PEP Post-exposure prophylaxis

PH Public health

POCT Point-of-care test

RAL Raltegravir

RHA Regional Health Authority

RNA Ribonucleic acid

STI Sexually-transmitted infection

TDF Tenofovir

UC Urgent care

VL Viral load

ZDV Zidovudine

#### **USING THIS PROTOCOL**

This Protocol is intended to be used as a reference primarily by urgent care/emergency room physicians, occupational health (OH) physicians, OH nurses and other health care professionals at initial contact of care who are knowledgeable in the assessment of blood or bodily fluid exposures. Health care providers (HCP) responsible for providing follow-up care, such as family physicians, infectious diseases specialists, etc., should find the document useful as well.

Information contained in the Protocol will provide HCPs with basic directions for managing post-exposure incidents in Manitoba. The aim is to have a high-level, relatively succinct protocol that providers can use for a quick reference to deal expeditiously with post-exposure situations. Users of the Protocol are expected to exercise good clinical judgment as well as due diligence.

The post-exposure management algorithm described in the Protocol has four major parts: initial, non-specific management for all exposures, and subsequent management specific to each of the three bloodborne infections—human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV). Each part has a process diagram presented as a swim lane flowchart. This visually groups along separate lanes, steps in the algorithm that pertain to the exposed (white background) and source (gray background) individuals. It further distinguishes responsibilities between the initial care provider (i.e., provider of initial assessment and prophylaxis) (plain foreground) and the laboratory (i.e., Cadham Provincial Laboratory) (stippled foreground). The boxes indicate the corresponding sections or tables in the document, which in the electronic (pdf) version is <a href="https://example.com/hyperlinked">hyperlinked</a> for ease in navigating around the document.

The flowcharts, as well as tables on HIV risk assessment and HBV management, are conveniently found altogether in a "Quick PEP Guide" at the beginning of the main body of the Protocol (i.e., immediately following this how-to-use-the-Protocol section).

#### **Special icons:**

This Protocol uses special icons along the margins to emphasize certain points, as follows:

These initials pertain to information specific to Manitoba. Providers in Manitoba should pay particular attention.



This icon pertains to information that may be easily overlooked or misunderstood, possibly resulting in sub-optimal care that impacts negatively on clinical outcomes.

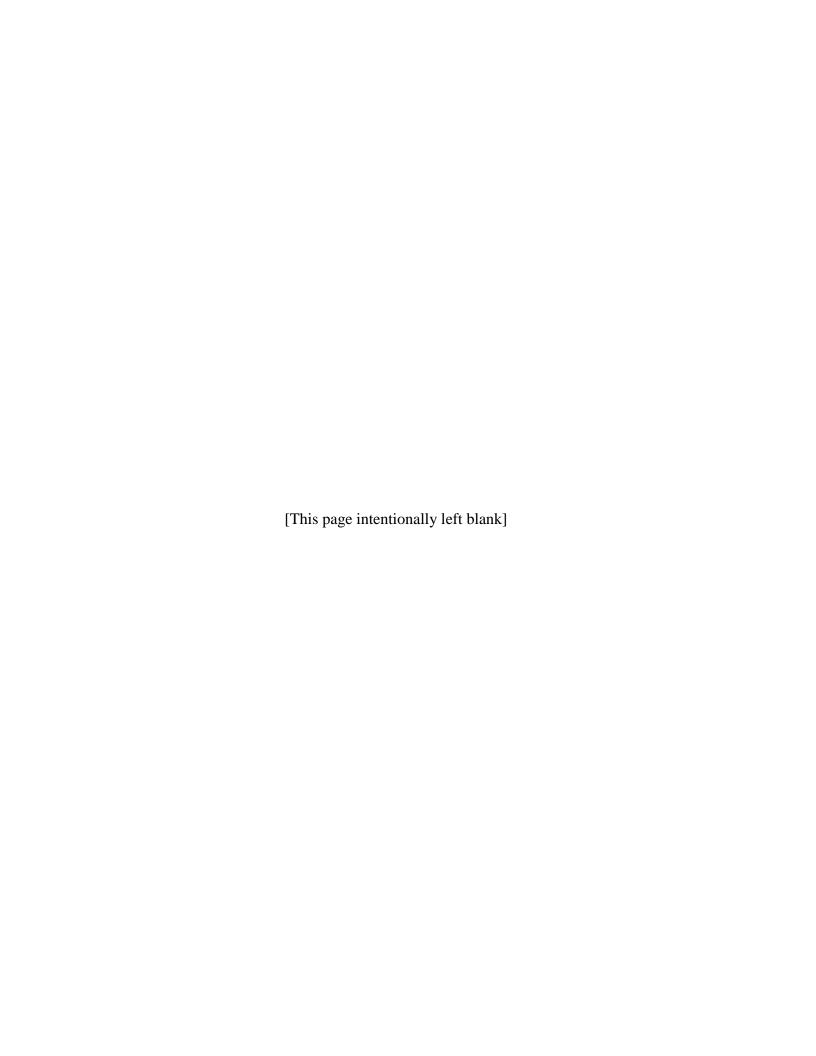


This icon pertains to telephone numbers in Manitoba that may be contacted for more information or guidance (listed in APPENDIX D)



This icon pertains to websites that may be visited for more information (listed in APPENDIX D)

If the icon appears next to a section header, it applies to information in that section and all subsections; if it appears next to a paragraph, it applies only to information in that paragraph and any list of items or bullet points under it; if it appears next to a list item or bullet point, it applies only to information in that list item or bullet point and any sub-level list of items or bullet points under it. *The pertinent information within the section, paragraph, list item or bullet point is italicized.* 



#### **QUICK PEP GUIDE**

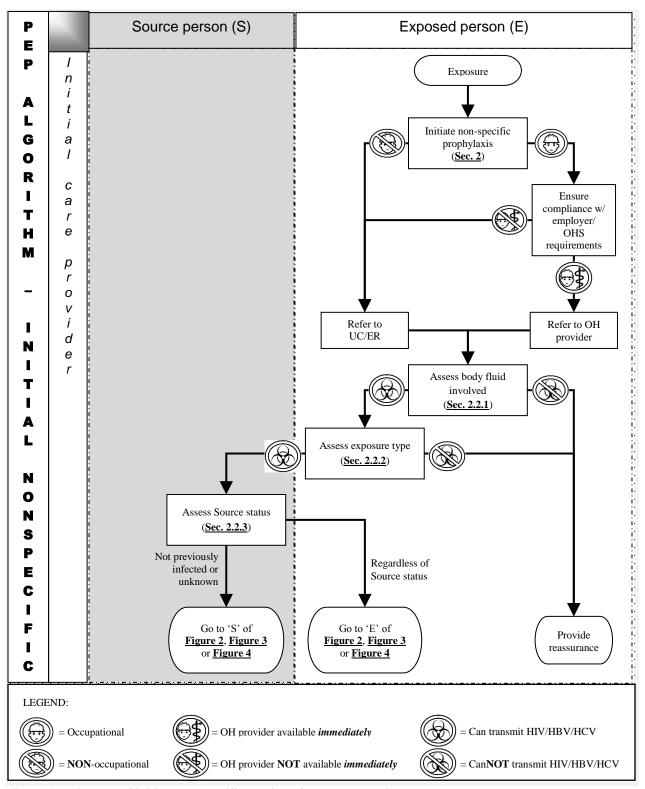


Figure 1 – Diagram of initial, non-specific portion of the PEP algorithm

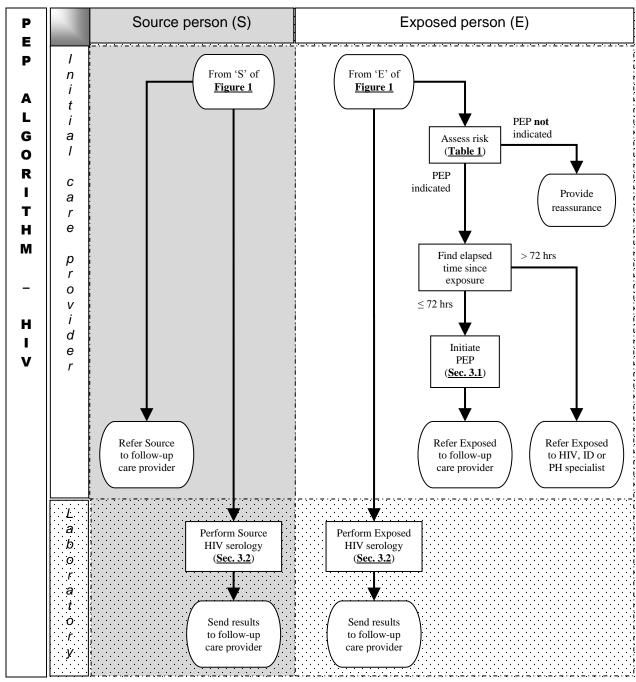


Figure 2 - Diagram of HIV portion of the PEP algorithm

Table 1 – HIV risk assessment for PEP initiation							
Risk from the	Likelihood that source person has transmissible HIV						
exposure type	Substantial <sup>1</sup>	Low <sup>2</sup>	Negligible or none <sup>3</sup>				
High <sup>4, 6</sup> / Moderate <sup>5, 6</sup>	Initiate PEP	Consider PEP	Consider PEP <sup>8</sup> / PEP not required				
Low <sup>7</sup>	PEP not required	PEP not required	PEP not required				

<sup>&</sup>lt;sup>1</sup>HIV+ and viremic (i.e., VL >40 copies/mL) OR HIV status unknown but from a priority population with high HIV prevalence compared to the general population

PEP not required if NON-occupational setting

N.B. Adapted to be applicable to both nPEP and oPEP from Tables 1, 2 and 4 of the Canadian Guideline on HIV PrEP and nPEP 2017(3)

<sup>&</sup>lt;sup>2</sup>HIV+ believed to be VL<40 with concomitant STI present at the time of exposure

<sup>&</sup>lt;sup>3</sup>Confirmed HIV negative OR HIV+ with confirmed VL<40 and no known STI present at time of exposure OR HIV status unknown, general population

<sup>&</sup>lt;sup>4</sup>Anal (receptive), needle sharing

<sup>&</sup>lt;sup>5</sup>Anal (insertive), vaginal (receptive, insertive)

<sup>&</sup>lt;sup>6</sup>The average risk for HIV transmission after a percutaneous or mucous membrane exposure or mother-to-child transmission is within what would be considered moderate to high.(1, 2)

<sup>&</sup>lt;sup>7</sup>Oral sex (giving, receiving), oral-anal contact, sharing sex toys, blood on compromised skin

<sup>&</sup>lt;sup>8</sup>Consider PEP **if occupational setting**, unless source person is confirmed HIV negative;(1)

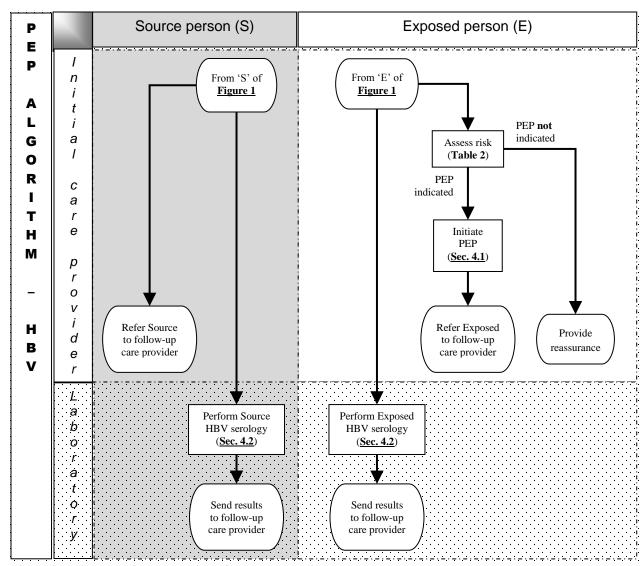


Figure 3 - Diagram of HBV portion of the PEP algorithm

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Table 2 – Management of I Vaccination status of exposed		ecommended action			
A. Completely vaccinated <sup>1</sup> ,	Regardless of Source status				
responder <sup>2</sup>	No further action needed, consider immune				
B. Completely vaccinated <sup>1</sup> ,	Source is infected or high-risk				
unknown response <sup>2</sup>	Result of baseline anti-HBs	No further action needed, consider immune <sup>5</sup>			
unknown response	≥10 IU/L	Two further action needed, consider minute			
	Result of baseline anti-HBs	1. Give HBIG x 1 dose			
	<10 IU/L <sup>4</sup>	2. HB vaccine booster x 1 dose <sup>4</sup>			
	\1010/L	3. Re-test for anti-HBs after 4–6 mos. If still <10			
		IU/L, complete 2 <sup>nd</sup> HB vaccine series <sup>6</sup>			
		4. Test for HBsAg and anti-HBc at 6			
		months post-exposure <sup>7</sup>			
	Source is uninfected and low-				
	Result of baseline anti-HBs	No further action needed, consider immune <sup>5</sup>			
	≥10 IU/L				
	Result of baseline anti-HBs	1. HB vaccine booster x 1 dose			
	<10 IU/L	2. Re-test for anti-HBs after 1–2 mos. If still <10			
	(10 10/2	IU/L, complete 2 <sup>nd</sup> HB vaccine series <sup>6</sup>			
C. Completely vaccinated <sup>1</sup> ,	Source is infected or high-risk	κ <sup>3</sup>			
non-responder <sup>2</sup>	1. Give HBIG x 1 dose				
	2. Give HB vaccine 2 <sup>nd</sup> series <sup>6</sup>				
	3. Test for HBsAg and anti-HB	c at 6 months post-exposure <sup>7</sup>			
	Source is uninfected and low-	risk			
	Complete 2 <sup>nd</sup> HB vaccine series	3 <sup>6</sup>			
D. Completely vaccinated <sup>1</sup> x 2	Source is infected or high-risk	x <sup>3</sup>			
courses, non-responder <sup>2</sup>	1. Give HBIG x 2 doses (4 wee	ks apart)			
	2. Test for HBsAg and anti-HB	c at 6 months post-exposure <sup>7</sup>			
	Source is uninfected and low-risk				
	No further action needed				
E. Incompletely vaccinated <sup>1</sup> ,	Source is infected or high-risk	x <sup>3</sup>			
unvaccinated or unknown	1. Give HBIG x 1 dose				
vaccination status	2. Complete vaccination				
3. Re-test for anti-HBs after 4–6 mos. If <10 IU/L, complete 2 <sup>nd</sup>					
	course <sup>6</sup>	•			
	4. Test for HBsAg and anti-HB	c at 6 months post-exposure <sup>7</sup>			
	Source is uninfected and low-risk				
1. Complete vaccination					
	2. Re-test for anti-HBs after 4–6 mos. If <10 IU/L, complete 2 <sup>nd</sup> HB vaccine				
	course <sup>6</sup>				

<sup>&</sup>lt;sup>1</sup>Number of doses of a completed course varies according to provincial and territorial immunization schedule and to the recommended product-specific dose.(4) Vaccination according to various approved schedule for routine vaccination for specific ages and vaccine formulations elicits similar final rates of seroprotection.(5) Thus, PRE-exposure vaccination based on the two-dose schedule of Manitoba's school-based immunization program is equivalent to the three-dose adult schedule and is therefore deemed complete for purposes of assessing vaccination status.

<sup>&</sup>lt;sup>2</sup>Responder is one with protective concentration of anti-HBs (≥10 IU/L) on prior testing.

<sup>&</sup>lt;sup>3</sup>See Sec. 2.2.3 for list of source person risk factors that increase their likelihood of having transmissible HBV.

<sup>&</sup>lt;sup>4</sup>If result is unavailable within 48 hrs, give HB vaccine booster x 1 dose. Once result known and if titre <10 IU/L, the HB vaccine booster need not be re-administered.

<sup>&</sup>lt;sup>5</sup>Individuals who are immunocompromised, have chronic renal failure or are on dialysis cannot be considered to have lifetime immunity and require serologic testing in case of subsequent exposure to HB.

<sup>&</sup>lt;sup>6</sup>To document vaccination status for future exposures, re-test anti-HBs 1 to 2 months after completion of the last HB vaccine series, or 4 to 6 months after HBIG if this was also given, whichever is later.(5)

<sup>&</sup>lt;sup>7</sup>If exposed is non-responder or unvaccinated/incompletely vaccinated previously AND source is infected or unknown status(5) (but high risk)

N.B. Adapted from Figures 1 and 2 of the Hepatitis B vaccine chapter of the Canadian Immunization Guide 2017(4), with modifications per the US Centers for Disease Control and Prevention recommendations(5)

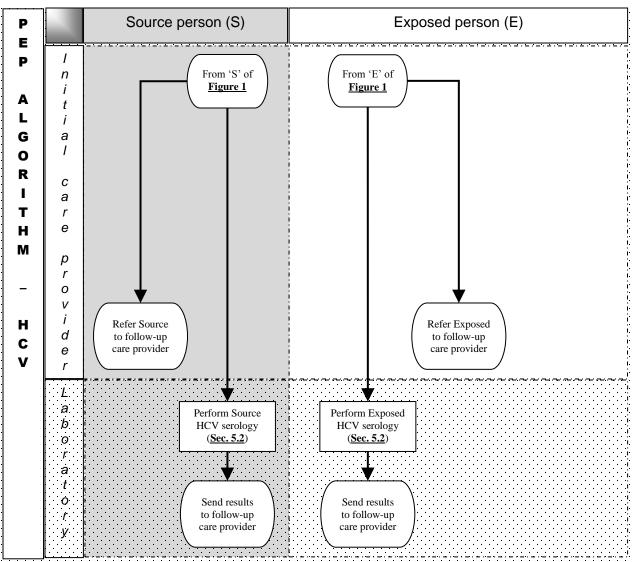


Figure 4 – Diagram of HCV portion of the PEP algorithm

#### 1. OVERVIEW

Post-exposure prophylaxis (PEP) is preventive management to avoid infection subsequent to exposure to human blood and body fluids that may transmit human immunodeficiency virus (HIV), hepatitis B virus (HBV) or hepatitis C virus (HCV).

Management of such exposures is diseasespecific.

- PEP for HIV involves antiretroviral (ARV) therapy
- PEP for HBV may involve both passive and active immunization against HBV
- Post-exposure management for HCV may include testing and follow up only. There is currently no approved PEP regimen for this virus.

This integrated protocol outlines the PEP management for HIV, HBV and HCV, in occupational as well as non-occupational settings.

## 2. INITIAL NON-SPECIFIC PROPHYLACTIC MEASURES AND RISK ASSESSMENT

See diagram on p. 1.

The following actions are recommended immediately following any exposure to blood or other body fluids regardless of whether the source person is known to pose a risk of infection for HIV, HBV and/or HCV(6):

- Thoroughly rinse the site of a percutaneous injury with running water, and gently clean any wound with soap and water.
- Flush mucous membranes of the eyes, nose or mouth with running water if contaminated with blood, body fluids, secretions or excretions.

- Thoroughly rinse non-intact skin with running water if contaminated with blood, body fluids, secretions or excretions.
- Although the use of antiseptics is not contraindicated, injection into the wound is **not** recommended.(5)

Any additional facility-specific instructions for post-exposure management should also be followed.

## 2.1. Initial Assessment and Reporting of Exposure Incident

Initial assessment of an exposure is performed in a timely manner. Depending on the exposure situation (i.e., occupational or non-occupational), the initial assessment is performed by an urgent care (UC) physician, an emergency room (ER) physician, an occupational health (OH) physician, an OH nurse or another health care professional knowledgeable in the assessment of blood or bodily fluid exposures. Follow-up care should be overseen by the appropriate health care provider (HCP), usually the relevant specialist physician or nurse practitioner, perhaps in collaboration with the family physician or OH physician.

#### 2.1.1. Occupational Exposures

Occupational exposures are accidental exposures occurring in work contexts (e.g., healthcare).(3) Workers need to comply with any employer and/or occupational health and safety (OHS) requirements in their workplace. Requirements may vary depending on the facility/organization and the occupation of the exposed person.



The exposure incident must be reported immediately to the appropriate administrative personnel with appropriate OH notification as per institutional/facility policy and protocols.



If the facility's OH unit or equivalent is not immediately available, the exposed person must go to UC primarily or an ER as a secondary option. Assessment and, if indicated, prophylaxis must then be initiated at the UC/ER.

## 2.1.2. Non-occupational Exposures

Non-occupational (or community) exposures occur in the community, usually in relation to sexual exposure or injection drug use.(3)

The service designated to provide the initial assessment may vary among different provincial Regional Health Authorities (RHA) and First Nations Inuit Health Branch (FNIHB) jurisdictions. Generally, initial assessment for non-occupational exposures is performed in UC primarily or an ER as a secondary option. Depending on prevailing policies by the relevant RHA/FNIHB (e.g., specialized clinics on weekdays, UC/ER on weekends and holidays), the client may be triaged to the appropriate facility. Check with the relevant RHA/FNIHB (for contact numbers, see APPENDIX D).



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#### 2.2. Risk Assessment of Exposure Incident for Consideration of PEP

If the source person is infected, the risk of transmission to the exposed person will depend on the body fluid involved, the type of exposure and the status (e.g., viral load) of the infected source person.

#### 2.2.1. Body Fluid Involved

Body fluids capable of transmitting HIV, HBV or HCV include the following(3, 4, 7-10):

- Blood, serum, plasma or other biological fluids visibly contaminated with blood
- Pleural, amniotic, pericardial, peritoneal, synovial, cerebrospinal fluids
- Semen, vaginal secretions
- Breast milk
- Organ and tissue transplants
- Donated blood and manufactured blood products (minimal risk in Canada)

Saliva, urine, vomitus, feces, nasal secretions, sputum, sweat or tears (unless visibly contaminated with blood), do **not** transmit HIV, HBV or HCV. Further risk assessment after exposure to these body fluids is not necessary, and PEP is **not** indicated.

#### 2.2.2. Type of Exposure

Exposure types of concern for possible transmission of HIV(3), HBV(4) or HCV(10) include the following:

- Sexual contact (anal or vaginal)
  - HCV is not efficiently transmitted through sex, unless there is concomitant HIV infection
- Needle sharing (e.g., injection drug use)
- Percutaneous injury (i.e., puncture or laceration of the skin that penetrates into or below the dermis)
- Mucous membrane exposure
- Mother-to-child transmission

Further risk assessment (including evaluation of the source person) is necessary only where the exposure incident (body fluid involved and exposure type) is deemed to be of concern for possible transmission of HIV, HBV or HCV.

#### Sexual Assault

HIV seroconversion may occur in persons whose only known risk factor was sexual assault or sexual abuse, but the frequency of this occurrence likely is low.(10) Although sexually assaulted persons are sometimes at risk for HIV transmission, they often decline non-occupational PEP (nPEP), and many who do take it do not complete the 28-day course.(11) HCPs who undertake initial assessment for nPEP should distinguish between consensual and non-consensual exposures and should provide or refer to sexual assault services accordingly. Screening for non-consensual sex is advised in order to ensure patients are offered access to sexual assault services (e.g., see APPENDIX D) where appropriate, and because sexual assault is a recognized risk factor for challenges with nPEP adherence that may warrant additional support.(3)

#### 2.2.3. Status of Source

Wherever possible, the source person should be tested. In the case of an unknown source, background circumstances may provide limited indication of the degree of risk.(4)

Source persons having one or more of the following risk factors are more likely to have transmissible HIV(3), HBV(4) or HCV(10):

- Known infection (HIV, HBV, HCV)
  - For HIV, has to be HIV+ and either viremic (i.e., VL >40 copies/mL) or with concomitant sexually transmitted infection (STI)
- Unknown infection status but belonging to a population with high HIV, HBV or HCV prevalence compared to the general population:
  - Has a sexual partner with known infection or high risk of infection (HIV, HBV, HCV)
  - Men who have sex with men (MSM) (HIV, HCV)
  - Has history of multiple sex partners (HBV, HCV)
    - For HCV, risk increases commensurate with increasing numbers of sex partners among heterosexual persons with HIV infection and MSM
  - o Engages in group sex (HCV)
  - People who inject drugs (HIV, HBV, HCV)
  - Has history of intranasal drug use (HCV)
  - Has tattoo obtained in unregulated setting (HCV)
  - Born to a mother with known infection (HCV)
  - In close family contact with an HBV-infected person (HBV)
  - Received blood products prior to 1985 (HIV), 1970 (HBV) or April 1992 (HCV).
  - Has history of residence in a country or area with a high prevalence of infection (HBV) (for web link, see APPENDIX D)





#### 3. HIV PEP

See diagram on p. 2.

## 3.1. Provision of HIV Prophylaxis



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HIV PEP should be initiated as soon as possible (maximum of 72 hours) after the exposure incident,(11) if indicated based on the nature of the exposure incident (see Table 1), and even while awaiting testing results for the source person. No laboratory evaluation is required prior to initiation of HIV PEP.

PEP medication regimen should contain three ARVs and may be prescribed to complete a 28-day (four-week) course (1, 3, 8). To help ensure prompt initiation of PEP, MHSAL provides starter kits free of charge. If the HCP determines that PEP is to be continued for the full 28-day course, the additional drug supply over those provided in the starter kit shall be prescribed (may use for this purpose the preprinted form available in APPENDIX B) – MHSAL does not assume the cost of these additional drugs. For a description of the PEP regimen currently included in the kits, see APPENDIX A.

HIV PEP is indicated if the exposure type is moderate to high risk and the source person has a substantial risk of having transmissible HIV infection. If the source person is of unknown HIV status but at high epidemiologic risk, or is HIV-positive and unavailable or does not provide consent for additional viral load (VL) testing (or verification of undetectable status), an assumption of a substantial risk for transmissible HIV infection must be made.(3)

PEP may be considered for individuals who have had an exposure that is moderate- or high-risk with a source person who has a low but non-negligible risk of having transmissible HIV. Following moderate/high risk occupational exposure with a source person who has negligible risk, a case by case assessment needs to be performed to determine if the risk of transmission warrants the use of PEP. PEP should still be considered if the source is a known HIV patient with an undetectable viral load.(1)

Prophylaxis is not recommended for individuals in **non-occupational setting** who have had a low-risk exposure, regardless of HIV status of source person.(3) On the other hand, because the great majority of **occupational** HIV exposures do not result in transmission of HIV whereas the agents administered for PEP (even those with relatively favorable safety profiles) can be associated with severe side effects, prophylaxis may not be justified in occupational setting either for exposures that pose a low risk for transmission.

HIV PEP is **not** indicated if the exposed person is already HIV-infected.
Individuals found to already be HIV-infected should be referred to appropriate services for eligibility assessment for ARV therapy according to national guidelines (see APPENDIX D). However, assessment of HIV status of the exposed person should not be a barrier to initiating PEP. In emergency situations where HIV testing and counseling is not readily available but the potential HIV risk is high, or if the exposed person refuses initial testing, PEP should be initiated and HIV testing and counseling undertaken as soon as possible.





Consultation with a specialist in HIV medicine, public health or infectious diseases is recommended for the situations listed below(1):

- Delayed (i.e., later than 72 hours) exposure report
  - Interval after which benefits from PEP are undefined
  - Significant risk of exposure may warrant PEP initiation despite the time lapse
- Unknown source person (e.g., needle in sharps disposal container or laundry)
  - Use of PEP to be decided on a case-by-case basis
  - Consider severity of exposure and epidemiologic likelihood of HIV exposure
  - Do not test needles or other sharp instruments for HIV
- Known or suspected pregnancy in the exposed person
  - The risk of HIV transmission poses a threat not only to the mother but also to the fetus and infant, as the risk of mother-to-child HIV transmission is markedly increased during acute HIV infection during pregnancy and breast-feeding.
  - Do not delay initiation of PEP while awaiting expert consultation
- Breast-feeding in the exposed person
  - Do not delay initiation of PEP while awaiting expert consultation
- Known or suspected resistance of the source virus to ARV agents
  - Resistance should be suspected in a source person who experiences clinical progression of disease, a persistently increasing VL, or a decline in CD4+ T cell count despite therapy and in instances in which a virologic response to therapy fails to occur.

- If source person's virus is known or suspected to be resistant to one or more of the drugs considered for PEP, selection of drugs to which the source person's virus is unlikely to be resistant is recommended.
- Do not delay initiation of PEP while awaiting any results of resistance testing of the source person's virus.
- Toxicity of the initial PEP regimen (for some examples, see **Table 6**)
  - Side effects (e.g., nausea, vomiting) are often manageable without changing PEP regimen by prescribing the appropriate medications (e.g., antimotility or antiemetic drugs)
  - Side effects are often exacerbated by anxiety
  - Counselling and support can help mitigate the side effects and promote adherence
- Serious medical illness in the exposed person
  - Significant underlying illness (e.g., renal disease) or already taking of multiple medications may increase the risk of drug toxicity
- Drug-drug interactions

Any exposed and source persons diagnosed with HIV as a result of testing should be referred by the health professional receiving the test results to the Manitoba HIV Program (204-940-6089, 1-866-449-0165) for appropriate counseling and treatment.



#### **Early HIV PEP Discontinuation**

If the exposed person has begun an HIV PEP regimen and it is later determined either that the exposed person has HIV infection already or the source person is HIV-negative, HIV PEP should be discontinued, (1, 11) regardless of the number of days of prophylaxis completed. Exception to the latter situation (HIVnegative source) is if the source person is strongly suspected to have acute HIV infection based on evaluation for signs or symptoms (see footnote of Table 7) and results of additional laboratory testing, that is, HIV ribonucleic acid (RNA) nucleic acid amplification test (NAAT), are pending(3), or there is increased risk that the source person is in the window period of infection (seroconversion phase). For example, persons whose sexual(12) or injection-related(13) exposures result in concurrent acquisition of HCV and HIV infection might have delayed HIV seroconversion. Continuation of PEP may be considered despite negative testing result in source person.

Other situations in which PEP may be stopped early:

- If the source is HIV positive and is found to have had a viral load below the limit of detection (< 40 copies/mL) for ≥ 6 months with no evidence of concurrent STI at the time of the exposure
- If ≥ 72 consecutive hours of PEP have been missed, stopping PEP should be considered

In cases that do not require PEP, the exposed person should be provided reassurance and counselled about limiting future exposure risk.(8, 9)

## 3.2. HIV Laboratory Testing

Baseline testing of both exposed and source individuals is necessary where the exposure incident (see Sec. 2.2) is deemed to be of concern for possible transmission of HIV. Initial positive enzyme-linked immunosorbent assay (EIA) test result undergo confirmatory testing.

Where available, testing of the exposed and source persons can also include a point-of-care test (POCT), which is conducted at or near the site at which care is being provided, but this should not replace the standard serology test. The value of the POCT is that results are usually returned rapidly so that clinical decisions can be made in a timely and cost-effective manner.(8)

Testing of the source person is recommended even when the source person was previously tested negative. Procedures should be followed for testing known source persons, including obtaining informed consent, in accordance with applicable laws. Manitoba's Testing of Bodily Fluids and Disclosure Act enables a person who has come into contact with a bodily fluid of another person to apply for a court order requiring the other person to provide a blood sample, which will be tested to determine if that person is infected with HIV (for web links, see APPENDIX D).

Three HIV testing options are available for free in Manitoba: 1. Nominal (preferred option), 2. Non-nominal and 3. Anonymous testing. In Nominal and Non-nominal testing, the test is ordered using the client's name or a code, respectively. In Anonymous testing, the test is ordered using a unique non-identifying code—not an option when provision of PEP is being



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considered. All of these testing options are confidential.

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In Manitoba, all diagnostic tests for HIV are performed at Cadham Provincial Laboratory (CPL). Please contact CPL (see APPENDIX D) for sample collection/submission instructions, testing schedule and result waiting time, as well as any request for urgent or "STAT" testing.



Do not delay initiation of PEP while awaiting any test results.

For additional laboratory testing, see APPENDIX C.

#### 4. HBV PEP

See diagram on p. 4.

## 4.1. Provision of HBV Prophylaxis

The management of potential exposure to HBV should be based on the immunization and antibody status of the exposed person and the infection status (if known) of the source person (see **Table 2**).

HBV vaccine is the most important intervention, providing 90% of the protection from HBV(4). Hepatitis B immunoglobulin (HBIG), through immediate short-term passive immunity, may provide additional protection. HBIG and HBV vaccine can be administered simultaneously at separate injection sites using separate needles and syringes.(5)



MHSAL provides HBV vaccine and HBIG free of charge for PEP to hospitals and other sites of first contact for immediate administration for patients with potential HBV exposure throughout Manitoba using the appropriate order form (for web links, see APPENDIX D).

If the results of the exposed and source persons are not available within 48 hours, management of the exposed person should assume possible exposure. If indicated, HBIG should be administered to susceptible individuals within 48 hours after exposure. The efficacy of HBIG decreases significantly after 48 hours, but may be given up to seven days (for sexual contacts, up to 14 days) after exposure.(4) The effectiveness of HBIG when administered after percutaneous, mucosal, or non-intact skin exposures beyond this timeframe is unknown.

Administration of HBIG should be omitted if the source person is tested within 48 hours and the result is negative.

The exposed person should be counselled on the use of risk reduction measures until the vaccine series has been completed and protective concentrations of hepatitis B surface antibody (anti-HBs) demonstrated.(4)

Expert consultation should be sought if the exposed person is immunocompromised.

Any exposed and source persons diagnosed with HBV as a result of testing, that is, found to be hepatitis B surface antigen (HBsAg) positive, should be referred by the health professional receiving the test results to the Viral Hepatitis Investigative Unit (for contact numbers, see APPENDIX D) for appropriate counseling and treatment.

#### **Early HBV PEP Discontinuation**

Immunoprophylaxis may be discontinued if the exposed person tests anti-HBs positive or HBsAg positive or the Source tests HBsAg negative.







## 4.2. HBV Laboratory Testing

Baseline testing for HBsAg, anti-HBs and hepatitis B core antibody (anti-HBc) of both exposed and source individuals is necessary where the exposure incident (see Sec. 2.2) is deemed to be of concern for possible transmission of HBV. The blood for testing of the exposed person should be drawn before the first dose of HBV vaccine and/or HBIG is given.(5)

Baseline testing for the exposed person is not required if there is documented immunity to HBV (i.e., has documentation of a completed HBV vaccine series with subsequent immunity demonstrated via titre testing) or if a previous test for HBsAg is positive. In both cases, the exposed person does not require prophylaxis.

Post-vaccination serologic testing should be performed one to two months after the last dose of the HBV vaccine. If HBIG was administered, testing should be delayed until four to six months after administration of HBIG to avoid detection of passively administered anti-HBs.(5)

Testing of the source person is recommended even where the source person previously tested negative. Procedures should be followed for testing known source persons, including obtaining informed consent, in accordance with applicable laws. Manitoba's Testing of Bodily Fluids and Disclosure Act enables a person who has come into contact with a bodily fluid of another person to apply for a court order requiring the other person to provide a blood sample, which will be tested to determine if that person is infected with HBV (for web links, see APPENDIX D).

In Manitoba, all diagnostic tests for HBV are performed at CPL. Please contact CPL (see APPENDIX D) for sample collection/submission instructions, testing schedule and result waiting time, as well as any request for urgent or "STAT" testing.

For additional laboratory testing, see APPENDIX C.

#### 5. HCV PEP

See diagram on p. 6.

#### 5.1. No Available HCV Prophylaxis

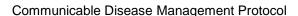
No PEP has been demonstrated to be effective against HCV.(10) Also, the marked genetic diversity and multiple mechanisms of persistence of HCV, combined with the relatively poor immune response of the infected host against the virus, are major barriers to development of a vaccine.(14) Close follow-up, post-exposure testing and early treatment with direct-acting antiviral combination therapy in the event that HCV transmission occurs are recommended for HCV post-exposure care.(15)

Any exposed and source persons diagnosed with HCV as a result of testing should be referred by the health professional receiving the test results to the Viral Hepatitis Investigative Unit (for contact numbers, see APPENDIX D) for appropriate counseling and treatment.









## 5.2 HCV Laboratory Testing

Baseline testing for hepatitis C antibody (anti-HCV) of both exposed and source persons is necessary where the exposure incident (see Sec. 2.2) is deemed to be of concern for possible transmission of HCV.

Baseline testing is not necessary if the exposed person is known (documented) to be HCV-positive prior to exposure.

Testing of the source person is recommended even when the source person has previously tested negative. Procedures should be followed for testing known source persons, including obtaining informed consent, in accordance with applicable laws. Manitoba's Testing of Bodily Fluids and Disclosure Act enables a person who has come into contact with a bodily fluid of another person to apply for a court order requiring the other person to provide a blood sample, which will be tested to determine if that person is infected with HCV (for web links, see APPENDIX D).



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In Manitoba, all diagnostic tests for HCV are performed at CPL. Please contact CPL (see APPENDIX D) for sample collection/submission instructions, testing schedule and result waiting time, as well as any request for urgent or "STAT" testing.

For additional laboratory testing, see APPENDIX C.

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#### **APPENDIX A**

#### HIV Post-exposure Prophylaxis Starter Kits

A preferred recommendation in Canada(3) and the United States(1, 11) for adults and adolescents 13 years and older, and children two to 13 years of age, is a regimen consisting of a nucleoside reverse-transcriptase inhibitor (NRTI) backbone of tenofovir (TDF) plus emtricitabine (FTC), with a third drug, usually raltegravir, an integrase strand transfer inhibitor. A suggested alternative NRTI backbone regimen includes zidovudine (ZDV) plus lamivudine (3TC), combined with ritonavir-boosted lopinavir (LPV/r), a protease inhibitor.

In the US(11), ZDV + 3TC is recommended as the preferred backbone regimen with LPV/r as the preferred third drug for children four weeks to under two years of age. The World Health Organization(7) recommends this same regimen for children younger than 10 years of age.

It is no longer recommended that the severity of exposure be used to determine the number of drugs to be offered in an HIV PEP regimen.(1) Recommending a three-drug regimen for all patients who receive PEP will increase the likelihood of successful prophylaxis in light of potential exposure to virus with resistance mutation(s). Additionally, if infection occurs despite PEP, a three-drug regimen will more likely limit emergence of resistance than will a two-drug regimen. A two-drug regimen (e.g., two NRTIs) may be considered in consultation with an expert when there are concerns about medication availability as well as potential adherence and toxicity.(1, 11)



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To help ensure timely initiation of PEP, MHSAL currently publicly funds three days of HIV PEP medications, referred to as 'starter kits' (see **Table 3**). Providers provide the appropriate kit based on client's age and weight as well as whether renal function is normal (see **Table 4** and **Table 5**). Two kits may be provided, but ONLY when circumstances of the client warrant it.<sup>1</sup>



Regimens other than those included in the starter kits might be considered because of patient-specific variables (e.g., contraindications in the exposed person, known drugresistance with the source person). In this case, HCPs are encouraged to seek consultation with other HCPs knowledgeable or experienced in using ARV medications for similar clients,(11) for example, at Manitoba HIV Program (204-940-6089, 1-866-449-0165) or Nine Circles Community Health Centre (204-940-6001).

In addition to ensuring timely access to medication, the starter kits also provide a multi-day period of time for the exposed persons to have their exposure assessed by an HIV specialist.

If the HCP determines that PEP is to be continued for the full 28-day course, the additional drug supply over those provided in the starter kit shall be prescribed (may use for this purpose the preprinted form available in APPENDIX B) – MHSAL Active Living, Population and Public Health Branch does not assume the cost of these additional drugs. The individual may be eligible for coverage through the Pharmacare program.

HIV PEP Starter Kits

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<sup>&</sup>lt;sup>1</sup>For example, long weekends, or the client lives in a remote community and there's good reason to believe three days will not be enough time either for the necessary lab results to become available or for the client to get to the follow-up care provider to obtain a prescription for more meds if needed

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These starter kits are provided to hospitals and other sites of first contact throughout Manitoba, for immediate administration for patients with potential HIV exposure, at no cost (including delivery), using the appropriate order form (for web links, see APPENDIX D).

Table 3 – HIV PEP starter kit types and drug contents					
Drugs	Quantity				
A – Standard $\geq$ 13 yr (any weight), $\geq$ 6 yr ( $\geq$ 35 kg)					
Tenofovir (TDF)/Emtricitabine (FTC) (Truvada®*)	300/200 mg tablet	3 tablets			
Raltegravir (RAL) (Isentress®)	400 mg tablet	6 tablets			
B – Renal $\geq$ 16 yr (any weight), 6 to $\leq$ 16 yr ( $\geq$ 35 kg)					
Zidovudine (ZDV)/Lamivudine (3TC) (Combivir®)	300/150 mg tablet	6 tablets			
Raltegravir (RAL) (Isentress®)	400 mg tablet	6 tablets			
C – 13 to < 16 yr (< 35 kg), 6 to < 13 yr (25 to < 35 kg)					
Zidovudine (ZDV) (Retrovir®)	100 mg capsule	18 capsules			
Lamivudine (3TC®)	150 mg tablet	6 tablets			
Raltegravir (RAL) (Isentress®)	400 mg tablet	6 tablets			
D – 6 to < 13 yr (< 25 kg), 2 to < 6 yr (< 35 kg)					
Zidovudine (ZDV) (Retrovir®)	100 mg capsule	18 capsules			
Lamivudine (3TC®)	150 mg tablet	6 tablets			
Lopinavir/ritonavir (LPV/r) (Kaletra®)	100/25 mg tablet	24 tablets			
*Or generic equivalent	•	•			

II Appendix A

Age group Weight (Kg)		Kit	Drug content	Dosage
With normal renal fun	ction			
Adults and adolescents aged		A	TDF/FTC 300/200 mg tablet	One tablet once daily
≥ 13 yrs			RAL 400 mg tablet	One tablet twice daily
With renal dysfunction	<u>'</u> *			•
Adults and adolescents aged		В	ZDV/3TC 300/150 mg tablet	One tablet twice daily
≥ 16 yrs			RAL 400 mg tablet	One tablet twice daily
·	≥ 35	В	ZDV/3TC 300/150 mg tablet	One tablet twice daily
			RAL 400 mg tablet	One tablet twice daily
	25 to < 35	С	ZDV 100 mg capsule	9 mg/kg (up to 300 mg) twice daily
			3TC 150 mg tablet	One tablet twice daily
			RAL 400 mg tablet	One tablet twice daily
Adolescents aged 13	20 to < 25	С	ZDV 100 mg capsule	9 mg/kg twice daily
to < 16 year			3TC 150 mg tablet	One-half tablet in AM, one tablet in PM
			RAL 400 mg tablet	One tablet twice daily
			ZDV 100 mg capsule	9 mg/kg twice daily
	15 to < 20	С	3TC 150 mg tablet	One-half tablet in AM, one-half tablet in PM
			RAL 400 mg tablet	One tablet twice daily

HIV PEP Starter Kits

Table 5 – HIV PEP starter kit recommendations for children aged < 13 years							
Age group	Weight (Kg)	Kit	Drug content	Dosage			
With normal renal fund	With normal renal function						
			TDF/FTC 300/200 mg	One tablet once daily			
	≥ 35	A	tablet				
			RAL 400 mg tablet	One tablet twice daily			
	25. 25	<i>a</i>	ZDV 100 mg capsule	9 mg/kg (up to 300 mg) twice daily			
	25 to < 35	С	3TC 150 mg tablet	One tablet twice daily			
Children agad 6			RAL 400 mg tablet	One tablet twice daily			
Children aged 6 to < 13 yrs			ZDV 100 mg capsule	9 mg/kg twice daily			
10 × 13 y13	20 to < 25	D	3TC 150 mg tablet	One-half tablet in AM, one tablet in PM			
			LPV/r 100/25 mg tablet	Two tablets twice daily			
	15 to < 20	D	ZDV 100 mg capsule	9 mg/kg twice daily			
			3TC 150 mg tablet	One-half tablet in AM, one-half tablet in PM			
			LPV/r 100/25 mg tablets	Two tablets twice daily			
	25 to < 35	D	ZDV 100 mg capsule	9 mg/kg (up to 300 mg) twice daily			
			3TC 150 mg tablet	One tablet twice daily			
			LPV/r 100/25 mg tablets	Three tablets twice daily			
	20 to < 25		ZDV 100 mg capsule	9 mg/kg twice daily			
Children aged 2 to < 6 yrs†		D	3TC 150 mg tablet	One-half tablet in AM, one tablet in PM			
			LPV/r 100/25 mg tablets	Two tablets twice daily			
	15 to < 20		ZDV 100 mg capsule	9 mg/kg twice daily			
		D	3TC 150 mg tablet	One-half tablet in AM, one-half tablet in PM			
			LPV/r 100/25 mg tablets	Two tablets twice daily			

IV Appendix A

Table 5 – HIV PEP starter kit recommendations for children aged < 13 years						
Age group	Weight (Kg)	Kit	Drug content	Dosage		
With renal dysfunction*						
			ZDV/3TC 300/150 mg	One tablet twice daily		
	≥ 35	В	tablet			
			RAL 400 mg tablet	One tablet twice daily		
	25 to < 35	C	ZDV 100 mg capsule	9 mg/kg (up to 300 mg) twice daily		
	25 10 < 55	C	3TC 150 mg tablet	One tablet twice daily		
Children aged 6			RAL 400 mg tablet	One tablet twice daily		
to < 13 years			ZDV 100 mg capsule	9 mg/kg twice daily		
to < 13 years	20 to < 25	D	3TC 150 mg tablet	One-half tablet in AM, one tablet in PM		
			LPV/r 100/25 mg tablet	Two tablets twice daily		
	15 to < 20	D	ZDV 100 mg capsule	9 mg/kg twice daily		
			3TC 150 mg tablet	One-half tablet in AM, one- half tablet in PM		
			LPV/r 100/25 mg tablet	Two tablets twice daily		
	25 to < 35	D	ZDV 100 mg capsule	9 mg/kg (up to 300 mg) twice daily		
			3TC 150 mg tablet	One tablet twice daily		
			LPV/r 100/25 mg tablets	Three tablets twice daily		
			ZDV 100 mg capsule	9 mg/kg twice daily		
Children aged 2 to < 6 yrs†	20 to < 25	D	3TC 150 mg tablet	One-half tablet in AM, one tablet in PM		
			LPV/r 100/25 mg tablets	Two tablets twice daily		
			ZDV 100 mg capsule	9 mg/kg twice daily		
	15 to < 20	D	3TC 150 mg tablet	One-half tablet in AM, one- half tablet in PM		
			LPV/r 100/25 mg tablets	Two tablets twice daily		

Note: For children aged < 2 years, children weighing < 15 kgs or children < 6 years but weighing ≥ 35 kgs, consult an HIV or pediatric ID specialist.

**HIV PEP Starter Kits** ٧

<sup>\*</sup>Renal dysfunction is creatinine clearance ≤ 59 ml/min.
†If child is unable to take tablet/capsule, consult HIV and/or pediatric pharmacy for administration suggestions
Abbreviations: 3TC = Lamivudine, FTC = Emtricitabine, LPV = Lopinavir, r = Ritonavir, RAL = Raltegravir, TDF = Tenofovir,

Drugs	dication side effects  Side effects, contraindications and cautions(11)				
Emtricitabine	Side effects: Hyperpigmented rash or skin discoloration				
Zimerettasine	Contraindications: Do not administer with 3TC				
	Cautions: FTC can be used in PEP regimens for patients with chronic HBV infection, but hepatic function tests should be closely monitored when regimen is stopped because withdrawal of this drug might cause an acute hepatitis exacerbation.				
Lamivudine	<b>Side effects:</b> Headache, nausea, malaise and fatigue, nasal signs and symptoms, diarrhea, and cough				
	Contraindications: Do not administer with FTC				
	<b>Cautions:</b> 3TC may be used in PEP regimens for patients with chronic HBV infection, but hepatic function tests should be closely monitored when regimen is stopped since withdrawal of this drug may cause an acute hepatitis exacerbation.				
Lopinavir/ritonavir	Side effects: Nausea, vomiting, diarrhea				
	<b>Cautions:</b> PR and QT interval prolongation have been reported. Use with caution with patients at risk for cardiac conduction abnormalities or receiving other drugs with similar effect.				
	Do not administer to neonates before a postmenstrual age (first day of the mother's last menstrual period to birth plus the time elapsed after birth) of $\geq$ 42 weeks and a postnatal age of $\geq$ 14 days.				
	<b>Contraindications:</b> Co-administration of ritonavir with certain sedative hypnotics, antiarrhythmics, sildenafil, or ergot alkaloid preparations is contraindicated and might result in potentially life-threatening adverse events.				
Raltegravir	<b>Side effects:</b> Insomnia, nausea, fatigue, headache; severe skin and hypersensitivity reactions have been reported				
	Contraindications: None				
	Cautions: Dosage adjustment required if co-administered with rifampin (800 mg twice daily for adults). Co-administration with antacids, laxatives, or other products containing polyvalent cations (Mg, Al, Fe, Ca, Zn), including iron, calcium, or magnesium supplements; sucralfate; buffered medications; and certain oral multivitamins can reduce absorption of RAL. RAL should be administered $\geq 2$ hours before or $\geq 6$ hours after administration of cation-containing medications or products, however, RAL can be co-administered with calcium carbonate-containing antacids.				
Tenofovir	Side effects: Asthenia, headache, diarrhea, nausea, vomiting				
	<b>Contraindications:</b> Nephrotoxicity; for PEP, should not be administered to persons with acute or chronic kidney injury or those with eCrCl < 60 mL/min				
	<b>Cautions:</b> TDF can be used in PEP regimens for patients with chronic HBV infection, but hepatic function tests should be closely monitored when regimen is stopped because withdrawal of this drug may cause an acute hepatitis exacerbation.				
Zidovudine	Side effects: Nausea, vomiting, headache, insomnia, and fatigue				
	Cautions: Can cause anemia and neutropenia				

VI Appendix A

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#### **APPENDIX B**

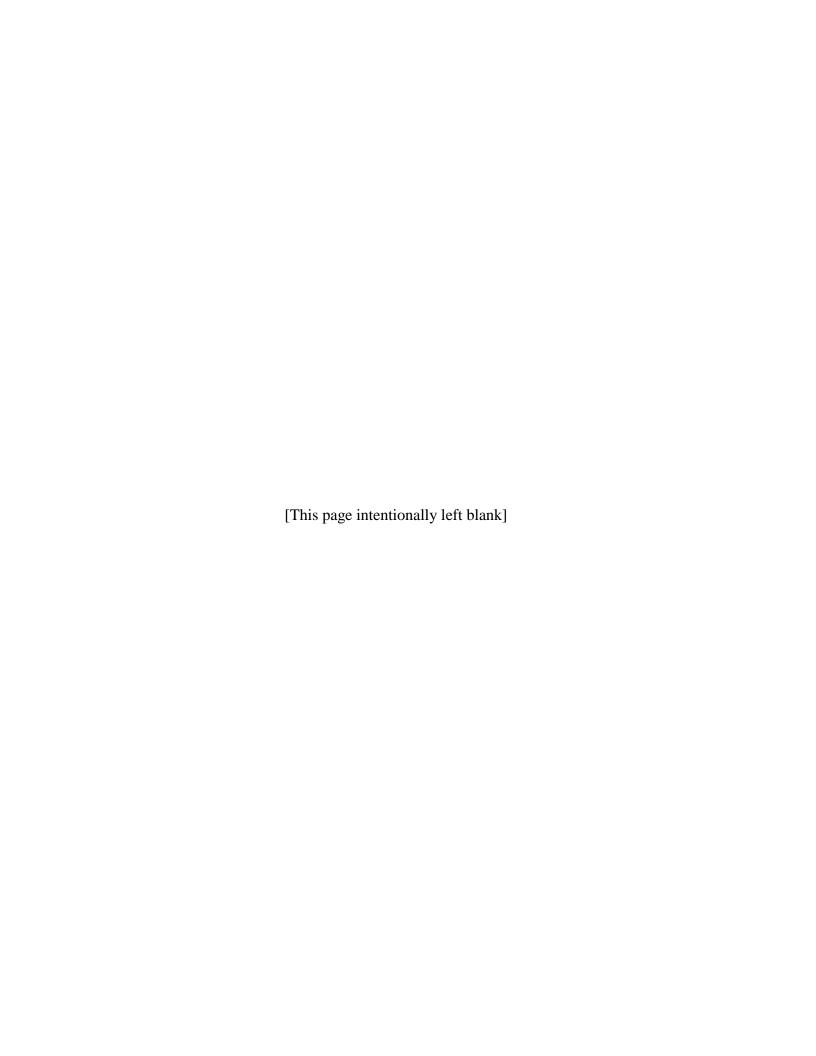
#### HIV Post-exposure Prophylaxis Pre-printed Prescription Form<sup>2</sup>

Human Immunodeficiency Virus
Post-Exposure Prophylaxis Prescription Form



Patient Name:		Date:					
Date of birth:	PHIN:	Gender: M / F					
Address:							
	*** Prescriber to tick the checkbox of the applicable drug/s below. Use separate prescription for drug/s not shown.***						
☐ Tenofovir/Emtricitabine (Truvada®) 300/	200 mg tablet	QTY: tablet/s					
Sig: 1 tablet by mouth once daily		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: tablets					
☐ Zidovudine/Lamivudine (Combivir®) 300,	/150 mg tablet	QTY: tablet/s					
Sig: 1 tablet by mouth twice daily		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: tablets					
☐ Zidovudine (Retrovir®) 100 mg capsule		QTY:capsule/s					
Sig: capsule/s by mouth twice daily		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: capsules					
☐ Lamivudine (3TC*) 150 mg tablet		QTY: tablet/s					
Sig:		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: tablets					
☐ Raltegravir (Isentress®) 400 mg tablet		QTY: tablet/s					
Sig: 1 tablet by mouth twice daily		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: tablets					
☐ Lopinavir/Ritonavir (Kaletra®) 100/25 mg	g tablet	QTY: tablet/s					
Sig: tablet/s by mouth twice daily		Refill/s:					
	(Substitutions allowed)	QTY in starter kit/s*: tablets					
Drug use: For post-exposure prophylaxis (Pi	EP) to prevent infection subsequer man immunodeficiency virus (HIV)	-					
body halas that may transmit har	nan inmandencincy virus (mv)						
FOR PHARMACY USE ONLY	*Prescription VOID if total numb	per of days equivalent of quantity					
This prescription is:		rom any and all starter kit/s provided					
O New prescription	PLUS quantity prescribed (include	aing any retilis) exceed 28 days.					
O Addition to previous prescription							
O Replace previous prescription	Prescriber Signature:						
O Begin after previous prescription		M.D.					
complete	License No.:						
Additional dispensing information:	Address:						
	Tel.:	. Fax:					

<sup>&</sup>lt;sup>2</sup>Not to be confused with the **HIV Post-exposure Prophylaxis Drug Order Form** (see APPENDIX D for link), which is used by providers for ordering the starter kits



#### **APPENDIX C**

#### **Laboratory Testing**

Aside from for documentation purposes, laboratory testing (see **Table 7**) is required for the following reasons(3, 11):

- Identify and clinically manage any other conditions potentially resulting from sexual- or injection-related exposure to potentially infected body fluids
- Identify any conditions that would affect the PEP medication regimen
- Monitor for safety or toxicities related to the regimen prescribed

Table 7 – Suggested schedule of post-exposure laboratory evaluations					
Test	Whom	When <sup>1</sup>			
	F1	Week 0			
		Week 4-6			
HIV test <sup>2</sup>	Exposed	Week 12			
		Week 24 <sup>3</sup>			
	Source	Week 0			
Hepatitis B surface antigen, surface antibody, core antibody	Exposed	Week 04			
Hepatitis B surface antigen, surface antibody, core antibody	Source	Week 0			
	Exposed	Week 0			
Hepatitis C antibody		Week 12 <sup>5</sup>			
Tiepatitis C antibody		Week 24 <sup>5, 6</sup>			
	Source	Week 0			
Hepatitis C RNA	Exposed	Week 4-6 <sup>5</sup>			
Complete blood count <sup>7</sup>	Exposed	Week 0			
Alanine aminotransaminase, aspartate aminotransferase <sup>7</sup>	Evnosad	Week 0			
Aramine animotransaminase, aspartate animotransferase	Exposed	Week 4-68			
Serum creatinine <sup>7</sup>	Evnosad	Week 0			
Serum Creatinine	Exposed	Week 4-68			

<sup>&</sup>lt;sup>1</sup>Week 0 = baseline

Laboratory Testing IX

<sup>&</sup>lt;sup>2</sup>Routine HIV serology includes EIA first and if it is reactive, then proceed with the confirmatory Ag/Ab combo assay; where POCT is done, routine serology should be requested on all reactive tests but would not be required for non-reactive tests; please contact CPL and ask for physician-on-call to discuss possible HIV RNA NAAT if there are signs or symptoms of acute HIV: fever, weight loss, anorexia, fatigue, gastrointestinal upset or diarrhea, rash, headache, lymphadenopathy, pharyngitis, myalgia or arthralgia, aseptic meningitis, oral ulcers, leukopenia.

<sup>&</sup>lt;sup>3</sup>Consider repeat HIV serology at 24 weeks post-exposure if HCV infection was acquired from the exposure. <sup>4</sup>See **Table 2** for recommended action with respect to follow-up HBV serology.

<sup>&</sup>lt;sup>5</sup>If baseline testing of the exposed person is negative and of the source person is positive; if source person's baseline testing is negative or unknown but source person has risk factor for having transmissible HCV (see Sec. 2.2.3), then perform follow-up testing for the exposed person as if source person is positive.

<sup>&</sup>lt;sup>6</sup>If baseline testing of the exposed person is negative and of the source person is unknown, with source person having no known risk factor for having transmissible HCV (see Sec. 2.2.3)

<sup>&</sup>lt;sup>7</sup>Ongoing laboratory monitoring of biochemistry and hematology during PEP is advised for those with baseline laboratory abnormalities or in those who develop signs or symptoms of organ dysfunction or medication-related adverse effects during therapy.

<sup>&</sup>lt;sup>8</sup>Additional follow-up tests if taking tenofovir + emtricitabine

Table 7 – Suggested schedule of post-exposure laboratory evaluations				
Test	Whom	When <sup>1</sup>		
Additional tests for sexual exposure	·			
Screening for gonorrhea and chlamydia	Eumanad	Week 0		
	Exposed	Week 12		
	Source	Week 0		
Syphilis serology	Erranad	Week 0		
	Exposed	Week 12		
	Source	Week 0		
Pregnancy test <sup>9</sup>	Exposed	Week 0		

<sup>&</sup>lt;sup>1</sup>Week 0 = baseline

X Appendix C

<sup>&</sup>lt;sup>9</sup>In women of child-bearing potential (i.e., of reproductive age, not using effective contraception and with vaginal exposure to semen)

#### Important Contact Numbers and Useful Web Links in Manitoba

#### <u>Important phone/fax numbers</u> (phone unless otherwise indicated)

#### **Cadham Provincial Laboratory**

204-945-6123 (phone); 204-786-4770 (fax)

#### Note on STAT testing(16)

Monday through Friday:

- STAT testing must be arranged through the appropriate Section of CPL prior to shipment.
- A requisition with the appropriate information and clearly marked STAT (a colored sticker is optimum) must accompany the specimen.
- Prior approval from CPL's on-call medical staff must be obtained for STAT viral testing.
- Prior approval must be obtained from CPL's medical staff for all remaining STAT testing, except for organ donor emergencies.

After 4:30 p.m., and on Weekends and Holidays (call back):

• Call Health Sciences Centre (HSC) paging at 204-787-2071.

#### Health Canada

#### First Nations Inuit Health Branch

204-918-5428 (Nursing Manager on call)

#### Health Links-Info Santé

204-788-8200 or Toll-free 1-888-315-9257

#### **Health Sciences Centre**

#### Pediatric Infectious Diseases

• Call HSC paging at 204-787-2071.

#### **Interlake-Eastern Health**

For occupational exposures (general public – non-regional staff and partners)

& all non-occupational exposures:

204-467-4781 (STI Coordinator)

For regional staff & partners:

#### Occupational Safety and Health Department

(204) 785-4717

#### Klinic Community Health Sexual Assault Crisis Line

204-786-8631 (in Winnipeg); 1-888-292-7565 (Toll Free in Manitoba); 204-784-4097 (TTY)

#### Manitoba Health, Seniors and Active Living

#### Communicable Disease Control

204-788-6737 (phone); 204-948-2190 (fax); after-hours: 204-788-8666 (MOH on call)

#### Manitoba HIV Program

204-940-6089 or 1-866-449-0165

#### **Nine Circles Community Health Centre**

204-940-6001

#### **Northern Health**

For community exposures: 204-679-2074 (Admin on call)

For occupational exposures: 204-623-9279 (IPC Manager)

#### **Prairie Mountain Health**

For community exposures: 204-622-2995

For occupational exposures: 204-578-2101

#### **Southern Health**

204-346-6260 (CD/Immunization Coordinator)

#### **Viral Hepatitis Investigative Unit**

204-787-3630

#### **Winnipeg Regional Health Authority**

For occupational exposures (general public – non-regional staff and partners) & all non-occupational exposures: 204-940-3607 (MOH daytime on call); after-hours (after 4 pm): 204-788-8666 (MOH evening on call)

For regional staff & partners:

Occupational and Environmental Safety & Health 204-926-8060

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#### <u>Useful web links</u>

#### Cadham Provincial Laboratory Guide to Services 2015

https://www.gov.mb.ca/health/publichealth/cpl/docs/guide.pdf

#### **Health Information Resources for Health Care Professionals**

(Contains instructions on how to order various provincial print resources) https://www.gov.mb.ca/health/jmc/index.html

#### **Hepatitis B Endemic List**

(From the Alberta Immunization Policy)

 $\underline{https://open.alberta.ca/dataset/aip/resource/121de497-de68-42f1-a1b9-de68-defeated.pdf}$ 

868696932615/download/AIP-BP-Hepatitis-B-Endemic.pdf

#### **HIV Post-exposure Prophylaxis Drug Order Form**

(Form to use for ordering HIV PEP starter kits)

http://www.gov.mb.ca/health/publichealth/diseases/hiv.html (look under Forms)

#### **HIV Post-exposure Prophylaxis Pre-printed Prescription Form**

(Form to use for prescribing additional drug supply over those provided in the starter kits) http://www.gov.mb.ca/health/publichealth/diseases/hiv.html (look under *Forms*)

#### **Testing of Bodily Fluids and Disclosure Act**

https://www.gov.mb.ca/health/publichealth/tbfd.html

#### **Vaccines and Biologics Order Form**

(Form to use for ordering HBV vaccines and/or HBIG)

http://www.gov.mb.ca/health/publichealth/cdc/protocol/vaccinebiologics.pdf

### What You Should Know If You Have Come Into Contact With Blood Or Body Fluids (Updated PEP booklet for the public)

https://www.gov.mb.ca/health/publichealth/factsheets/pep\_book.pdf

NOTE: If clicking the link does not open the website, try copy-pasting the url to your browser.