



HEALTH HOLDING

HAFAER ALBATIN HEALTH  
CLUSTER  
MATERNITY AND  
CHILDREN HOSPITAL

<b>Department:</b>	Infection Prevention and Control Department		
<b>Document:</b>	Administrative Policy and Procedure (APP)		
<b>Title:</b>	Sharps Injury / Needle Stick Injuries (NSI) Management: and Exposure to Blood borne Pathogens		
<b>Applies To:</b>	All MCH Staff		
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## 1. PURPOSE:

- 1.1 To provide guidelines for the management of healthcare workers who have had occupational exposure to blood and/or body fluids.

## 2. DEFINITIONS:

- 2.1 Occupational exposure is defined as percutaneous injury (e.g., a needle stick or cut with sharp object) or contact of mucous membranes (e.g., splashes to eyes, nose, oral cavity) or non-intact skin (e.g., exposed skin that is chapped, abraded or afflicted with dermatitis) that may place the healthcare worker (HCW) at risk for infection with Hepatitis B virus (HBV), Hepatitis C virus (HCV) or human immunodeficiency virus (HIV).
- 2.2 Needle sticks and other sharps injuries are a serious hazard in any healthcare facility. Contact with contaminated needles, scalpels, broken glass, and other sharps may expose healthcare workers to blood that contains pathogens that pose a grave, potentially lethal risk.

## 3. POLICY:

- 3.1 Needles are not bent, broken, or recapped except in special and approved circumstances (if recapping is necessary, the "scoop method" is used).
- 3.2 Any direct contact (i.e., contact without barrier protection) to concentrated virus in a research laboratory or production facility is considered an exposure that requires clinical evaluation.
- 3.3 Potentially infectious materials include blood, body fluids containing visible blood, and tissue as well as medical supplies, equipment or environmental surfaces contaminated with these substances.
- 3.4 The following fluids are considered potentially infectious: cerebrospinal fluid, synovial fluid, pleural fluid, pericardial and amniotic fluids, semen, and vaginal secretions. While, feces, saliva, sputum, nasal secretions, sweat, tears, urine and vomit are not considered potentially infectious unless they contain blood.

## 4. PROCEDURE:

- 4.1 Causes of needle stick and sharp injuries:
  - 4.1.1 The majority of needle stick injuries occur during the use of the device and following use but before disposal.
  - 4.1.2 Common causes of injuries attributable to improper work practices include:
    - 4.1.2.1 Passing sharps between health care workers.
    - 4.1.2.2 Transferring sharps to a different location.
    - 4.1.2.3 Recapping sharps.
    - 4.1.2.4 Decontamination or reprocessing of used devices.
  - 4.1.3 Most needle stick injuries occur in patient wards, operating room, and recovery, during injections and suturing, and with hollow-bore needles.
- 4.2 **Measures for the management of Sharp Injuries / needle stick injuries**

- 4.2.1 Immediate measures according to the MOH or healthcare facility policy
  - 4.2.1.1 Do not be panic
  - 4.2.1.2 Stop immediately the procedure you perform. **Do not wait until the end of the shift or the end of the procedure.**
  - 4.2.1.3 Dispose properly the contaminated gloves.
  - 4.2.1.4 Dispose the sharp instrument in the sharp container.
  - 4.2.1.5 Encourage the wound to bleed, ideally by holding it under running water.
  - 4.2.1.6 **DO NOT SQUEEZE the side of the injury.**
  - 4.2.1.7 Clean the wound with running water & soap
  - 4.2.1.8 Apply waterproof dressing.
  - 4.2.1.9 In case of splashes to the eyes, nose or mouth irrigate with clean water, saline, or sterile irrigants.
  - 4.2.1.10 Identify the patient involved so that they can be evaluated for an infection.
  - 4.2.1.11 Immediate reporting.
- 4.3 Reporting process of NSI
  - 4.3.1 Immediately report to your supervisor & the Infection prevention & control department or occupational health clinic according to the hospital policy if the accident occurs during regular working hours.
  - 4.3.2 If the incident has happened outside of working hours, then go to the emergency department.
  - 4.3.3 Fill out the facility's incident reporting form including at least the following Information:
    - 4.3.3.1 Date and time of incident.
    - 4.3.3.2 Job classification of exposed HCW.
    - 4.3.3.3 Location in the worksite where the incident occurred.
    - 4.3.3.4 Procedure being performed by exposed HCW.
    - 4.3.3.5 Type of used device.
    - 4.3.3.6 Engineering controls including the use of safety syringes.
    - 4.3.3.7 Personal protective equipment used during the incidents
- 4.4 Post-exposure follow-up: See appendices 7.1
  - 4.4.1 According to the assessment of exposure and investigation of the source and exposed healthcare worker, the recommendations for post-exposure treatment and follow-up plan will be formulated.
    - 4.4.1.1 Hepatitis B Virus (HBV) post-exposure prophylaxis (PEP) is determined by the HBs Ag status of the source and the immune status of the exposed person.
    - 4.4.1.2 Post-exposure prophylaxis with Hepatitis B immunoglobulin (HBIG) and/or vaccine should be administered as soon as possible (preferably within 24 hours) when indicated
    - 4.4.1.3 HCV Infection: Persons exposed to an HCV-positive source should have the following baseline and follow-up testing:
      - 4.4.1.3.1 Baseline testing for anti-HCV, HCV RNA and ALT.
      - 4.4.1.3.2 Follow-up testing for HCV RNA 4 to 6 weeks after exposure.
      - 4.4.1.3.3 Follow-up testing for anti-HCV, HCV RNA and ALT 4 to 6 months after exposure.
      - 4.4.1.3.4 No post-exposure prophylaxis is currently recommended for HCV.
    - 4.4.1.4 HCW who have experienced occupational exposure to HIV should receive follow-up counselling, post-exposure testing, and medical evaluation regardless of whether they take PEP.
    - 4.4.1.5 Follow-up testing at a minimum should include HIV testing at baseline: 6 weeks, 12 weeks, and 6 months post-exposure
- 4.5 Any exposed HCW should report immediately to the Employee Health Clinic during working hours or to the Emergency Department (ED) after hours or over the weekend. The HCW should report the incident to his/her supervisor. A Safety Reporting Systems (SRS) report form should be completed.
- 4.6 The employee should adhere to the following steps immediately after exposure:

- 4.6.1 First Aid: If you experienced a needle stick or sharps injury or were exposed to blood or other body fluid of a patient during the course of your work, immediately follow these steps:
  - 4.6.1.1 Percutaneous injuries
    - 4.6.1.1.1 Wash needle sticks and cuts with soap and water;
    - 4.6.1.1.2 Then apply isopropyl alcohol 70%; and
    - 4.6.1.1.3 Bandage appropriately.
  - 4.6.1.2 Mucocutaneous and non-intact skin exposures
    - 4.6.1.2.1 Splash water to the nose, mouth, or non-intact skin.
    - 4.6.1.2.2 Irrigate eyes with clean or sterile water or saline.
    - 4.6.1.2.3 Flush site for 10 minutes.
- 4.6.2 Reporting the injury
  - 4.6.2.1 The employee should report the incident to his/her supervisor and complete a Safety Reporting System (SRS) form.
  - 4.6.2.2 The report should include:
    - 4.6.2.2.1 The date and time of the incident;
    - 4.6.2.2.2 The location where the incident occurred;
    - 4.6.2.2.3 The department where the employee works; and
    - 4.6.2.2.4 The source patient Medical Record Number (MRN), if known.
- 4.7 The physician evaluating the exposure should obtain the following information:
  - 4.7.1 The name and identification of the source.
  - 4.7.2 The time and date of the exposure.
  - 4.7.3 The nature of the exposure (i.e., non-intact skin, mucosal or percutaneous, human bite).
  - 4.7.4 The type of fluid involved (i.e., blood, blood-contaminated fluid, or other contaminated fluid).
  - 4.7.5 The body location of the exposure and the contact time with the contaminated fluids.
  - 4.7.6 Infection status of the source (i.e., HIV, HCV, HBsAg). If known, include the date of testing.
  - 4.7.7 The exposed HCW should be questioned about the circumstances of the exposure:
    - 4.7.7.1 For percutaneous injuries, the depth of the wound, solid versus hollow needle, sharps use in the source patient.
    - 4.7.7.2 HBV immunization and post-immunization titer, if known (the HCW's medical records can be reviewed to ascertain this information).
    - 4.7.7.3 Previous testing for HIV, HBV, and HCV.
    - 4.7.7.4 Tetanus immunization status.
    - 4.7.7.5 Current medical condition.
  - 4.7.8 In case of a needle stick injury and or mucocutaneous exposure from a known HIV- positive source, the ER physician should initiate antiretroviral regimen immediately upon consultation with the ID consultants on call. Please refer to section J for HIV post exposure prophylaxis. They should be questioned about the circumstances of the exposure.
- 4.8 The exposed HCW's blood should be tested for HBV, HCV and HIV. Follow institutional policies for consent requirements to obtain the source patient's blood for testing
- 4.9 The source individual's blood should be tested as soon as possible to determine HBV (HBsAg, HBsAb, anti-HBc), HCV (anti-HCV), and HIV (HIV test) serological status. When the source individual is already known to be infected with HCV or HIV, testing the source need not be repeated.
  - 4.9.1 The nurse will notify the patient's most responsible physician (MRP) of the incident.
  - 4.9.2 It is the responsibility of the MRP to order the following baseline serology on the source patient after obtaining consent:
    - 4.9.2.1 HBsAg
    - 4.9.2.2 Anti-HCV
    - 4.9.2.3 Anti-HIV I/II
- 4.10 Counsel the employee regarding the risk of transmission of bloodborne pathogens and post-exposure prophylaxis.
- 4.11 HBV post-exposure prophylaxis (PEP) is determined by the HBsAg status of the source and the immune status of the exposed person.
- 4.12 Recommended post-exposure prophylaxis for exposure to Hepatitis B virus:

- 4.12.1 Post-exposure prophylaxis with Hepatitis B immunoglobulin (HBIG) and/or vaccine should be administered as soon as possible (preferably within 24 hours).
  - 4.12.1.1 The effectiveness of HBIG when administered more than 7 days after percutaneous or mucosal exposure is unknown.
  - 4.12.1.2 If the exposed person has an adequate antibody response (>10 mIU/ml) documented after completion of an HBV vaccination series, no testing or treatment is needed.
  - 4.12.1.3 Hepatitis B vaccine and HBIG can be administered simultaneously at separate sites (the vaccine should always be administered in the deltoid muscle).
- 4.13 HCV Infection: Persons exposed to an HCV-positive source should have the following baseline and follow-up testing:
  - 4.13.1 Baseline testing for anti-HCV, HCV RNA and ALT
  - 4.13.2 Follow-up testing for HCV RNA 4 to 6 weeks after exposure.
  - 4.13.3 Follow-up testing for anti-HCV, HCV RNA and ALT 4 to 6 months after exposure.
  - 4.13.4 No post-exposure prophylaxis is currently recommended for HCV.
- 4.14 HIV Post-Exposure Prophylaxis (PEP): These recommendations apply to situations in which the HCW has been exposed to a source person who either has or is considered likely to have HIV.
- 4.15 Provide counselling:
  - 4.15.1 Majority of occupational exposures do not result in transmission of HIV
    - 4.15.1.1 The average risk of HIV transmission after percutaneous exposure to HIV-infected blood has been estimated to be approximately 0.3%, approximately 0.09% after mucous membrane exposure, and even lower for non-intact skin exposure.
    - 4.15.1.2 The risk of transmission after exposure to fluids or tissues other than HIV-infected blood is likely to be considered lower than that for blood exposure.
  - 4.15.2 Exposure to source blood to intact skin is considered minimal risk; however, any direct contact without barrier protection to concentrated virus in a research laboratory requires clinical evaluation. Toxicity and drug interactions of antiretroviral agents.
    - 4.15.2.1 Persons receiving post-exposure prophylaxis (PEP) should complete a full 4-week regimen if tolerated.
    - 4.15.2.2 Potential side effects of antiretroviral agents should be discussed with the HCWs, and, when anticipated, pre-emptive prescribing agents for ameliorating side effects may improve PEP regimen adherence.
    - 4.15.2.3 Medications included in an HIV PEP regimen should be selected to optimize side effect and toxicity profiles and a convenient dosing schedule to encourage compliance.
    - 4.15.2.4 Potential benefits and risk of PEP must be considered when prescribing PEP. Attached Appendix A for list of HIV PEP regimen.
  - 4.15.3 Management of HCWs potentially exposed to HIV. Occupational exposures to HIV should be considered urgent medical concerns and treated immediately
    - 4.15.3.1 The selection of PEP regimen should be implemented in consultation with persons who are expert in the administration of antiretroviral therapy and who are knowledgeable about HIV transmission. See appendices 7.2 In Situations for which Expert Consultation for HIV PEP is Recommended
    - 4.15.3.2 Obtain baseline anti-HIV, CBC, differential liver and renal profile; then re-evaluate clinically 72 hours post PEP initiation and at the second and fourth weeks after the initiation of PEP
    - 4.15.3.3 Administration of PEP should be given as soon as possible and not to be delayed while waiting for test results, preferably within hours after exposure. The benefit of PEP is greatly diminished 72 hours after exposure.
    - 4.15.3.4 Re-evaluation of exposed HCW is recommended within 72 hours post exposure, especially, as additional information about the exposure or source person becomes available.

- 4.15.3.5 If PEP is offered and the source is later determined to be HIV-negative (with no risk behavior), PEP should be discontinued and no further HIV follow-up testing is indicated for the exposed provider.
- 4.15.3.6 It is no longer recommended that the severity of exposure be used to determine the number of drugs to be offered in an HIV regimen. A regimen containing three or more antiretroviral drugs is now recommended routinely for all occupational exposures to HIV
- 4.15.3.7 Clinicians might still consider the two drug regimen in consultation with an expert if issues such as medication availability, potential adherence and toxicity, or others associated with a three-drug regimen are face.
- 4.16 Follow up of Exposed HCW: HCW who have experienced occupational exposure to HIV should receive follow-up counselling, post-exposure testing, and medical evaluation regardless of whether they take PEP.
  - 4.16.1 For exposures for which PEP is prescribed, HCWs should be informed regarding:
    - 4.16.1.1 Possible drug toxicities e.g., rash and hypersensitivity reactions which could imitate acute HIV seroconversion and the need for monitoring;
    - 4.16.1.2 Possible drug interactions; and
    - 4.16.1.3 The need for adherence to PEP regimens.
  - 4.16.2 Early re-evaluation after exposure. Regardless of whether a HCW provider is taking PEP, re-evaluation of exposed HCW within 72 hours after exposure is strongly recommended, as additional information about the exposure or source person may be available.
  - 4.16.3 Follow up testing and appointments. Follow up testing at a minimum should include:
    - 4.16.3.1 HIV testing at baseline: 6 weeks, 12 weeks, and 6 months post exposure.
    - 4.16.3.2 Use of a 4th generation HIV Ag/Ab combination immunoassays allow for earlier detection of HIV infection. If the clinician is certain that a 4th generation combination HIV p24 antigen-HIV antibody test is being utilized, then HIV testing could be performed at baseline, 6 weeks, and concluded at 4 months post exposure.
    - 4.16.3.3 Complete blood count, renal and hepatic function tests (at baseline and 2 weeks post-exposure; further testing may be indicated if abnormalities were detected).
    - 4.16.3.4 Extended HIV follow up for 12 months is recommended for HCW who become infected.
- 4.17 Counseling for employees exposed to viral hepatitis and HIV for the duration of follow-up:
  - 4.17.1 Refrain from donating blood, semen, plasma or tissue.
  - 4.17.2 Pregnant or lactating women should be advised against breast feeding.
  - 4.17.3 Personal items such as toothbrushes and razors should not be shared.
  - 4.17.4 Sexual intercourse should involve protection.

## 5. MATERIALS AND EQUIPMENT:

- 5.1 **Forms and Records:**
  - 5.1.1 N/A
- 5.2 **Materials and Equipment**
  - 5.2.1 N/A

## 6. RESPONSIBILITIES:

- 6.1 All MCH Staff

## 7. APPENDICES:


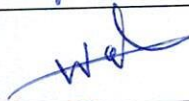
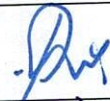
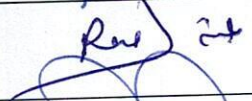

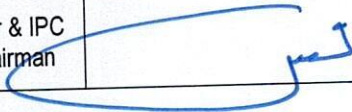
- 7.1 Management Guidelines for Healthcare Provider (HCP) Status Regarding Hepatitis B Exposure
- 7.2 Recommended post-exposure follow-up schedule for exposed healthcare workers:
- 7.3 Recommended Post-Exposure Prophylaxis (PEP) for Hepatitis B Virus

- 7.3 Recommended Post-Exposure Prophylaxis (PEP) for Hepatitis B Virus
- 7.4 In Situations for which Expert Consultation for HIV PEP is Recommended
- 7.5 Human Immunodeficiency Virus (HIV) Post-exposure Prophylaxis (PEP) Regimens
- 7.6 Recommended safe injection practices:

**8. REFERENCES:**

- 8.1 GCC Infection Prevention and Control Manual. 3rd Edition, 2018
- 8.2 Centers for Disease Control and Prevention (CDC). For edition U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV and HIV and recommendation for post exposure prophylaxis, MMWR 2001/50 O (RR11);1-42.
- 8.3 Association for professionals in Infection Control (APIC) and Epidemiology, Inc. (2014) Chapter 101: Occupational Exposure to Blood borne Pathogens. In APIC Text of infection control and epidemiology (4th ed.).
- 8.4 **Basic Infection Control Skills License (BICSL) Manual. February 2025 Version 3.0**
- 8.5 Saudi Central Board for Accreditation of Healthcare Institutions (CBAHI) Standards 3rd Edition. 1436-2015. Effective 1 January 2016.

**9. APPROVALS:**

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**Appendix 7.1** Management Guidelines for Healthcare Provider (HCP) Status Regarding Hepatitis B Exposure

HCP status	Postexposure Testing		Postexposure Prophylaxis		Postvaccination Serologic Testing
	Source patient (HBsAg)	HCP testing (anti-HBs)	HBIG	Vaccination	
Documented responder after complete series	No action needed				
Documented non responder after two complete series	Positive/unknown	Not indicated	HBIG x2 separated by 1 month	Initiate revaccination	N/A
	Negative	No action needed			
Response unknown after complete series	Positive/unknown	<10 mIU/mL	HBIG x1	Initiate revaccination	Yes
	Negative	<10 mIU/mL	Not indicated	Initiate revaccination	Yes
	Any result	≥10 mIU/mL	Not indicated		
Unvaccinated/incompletely vaccinated or vaccine refusers	Positive/unknown	Not indicated	HBIG x1	Complete vaccination	Yes
	Negative	Not indicated	None	Complete vaccination	Yes

**Abbreviations :** anti HBs = antibody to hepatitis B surface antigen; HBIG = hepatitis B immune globulin; HBsAg = hepatitis B surface antigen; HCP = health care personnel; N/A = not applicable.

\* Not indicated.

**Appendix 7.2** Recommended post-exposure follow-up schedule for exposed healthcare workers:

Pathogen	Baseline	4-6 weeks	3 months	6 months
<b>Hepatitis B</b>	HBs Ag Anti HBs	Test for anti-HB after the last dose of the vaccine if only a vaccine is given.	-	HBs Ag Anti HBs
<b>Hepatitis C</b>	Anti-HCV Liver function test	HCV RNA	-	Anti-HCV Liver function test
<b>HIV</b>	Anti-HIV	Anti-HIV	Anti-HIV	Anti-HIV

### Appendix 7.3 Recommended Post-Exposure Prophylaxis (PEP) for Hepatitis B Virus

Employee Status	Source Patient Status		
	HBsAg Positive	HBsAg Negative	Unknown
Unvaccinated	HBIG*x1 and initiate HB vaccine series.	Initiate HB vaccine series.	Initiate HB vaccine series
Previously vaccinated a. Known responder <sup>+</sup>	No treatment	No treatment	No treatment
b. Known non-responder <sup>++</sup>	HBIG*x2 or HBIG*x1 and initiate revaccination.	No treatment	If known high-risk source, treat as if source were HBsAg positive.
Antibody response unknown	Test exposed person for anti-HBs: 1. if adequate <sup>+</sup> , no treatment 2. if inadequate <sup>++</sup> , HBIGx1 and vaccine booster.	Test exposed person for anti-HBs: 1. if adequate <sup>+</sup> , no treatment 2. if inadequate <sup>++</sup> , initiate vaccination	Test exposed person for anti-HBs: 1. if adequate <sup>+</sup> , no treatment 2. if inadequate <sup>++</sup> , initiate vaccination

Legend: HBsAg: Hepatitis B surface antigen. HBIG: Hepatitis B immunoglobulin. HB vaccine: Hepatitis B vaccine to be given IM in the deltoid muscle. Anti-HBs: Antibody to hepatitis B surface antigen. \* Dose: 0.06 mg/kg IM to be administered at a different site from the HB vaccine, using a different syringe. + A responder is defined as a person with adequate serum levels of anti-HBs (> 10 mIU/ml) tested 1-2 months after vaccine completion. ++ A non-responder is defined as a person with serum anti-HBs levels < 10 mIU/ml, as tested 1-2 months after vaccine completion (2 series).

### Appendix 7.4 In Situations for which Expert Consultation for HIV PEP is Recommended

- Delayed (i.e., later than 72 hours) exposure report
  - Interval after which benefits from PEP are undefined
- Unknown source (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
  - Provision of PEP should not be delayed while awaiting expert consultation.
- Breastfeeding in the exposed person
  - Provision of PEP should not be delayed while awaiting expert consultation.
- Known or suspected resistance of the source virus to antiretroviral agents
  - If source person's virus is known or suspected to be resistant to 1 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
  - Symptoms (e.g., gastrointestinal symptoms) are often manageable without changing PEP regimen by prescribing anti-motility or antiemetic agents.
  - Counseling and support for management of side effects is very important, as symptoms are often exacerbated by anxiety.
- Serious medical illness in the exposed person
  - Significant underlying illness (e.g., renal disease) of an exposed provider already taking multiple medications may increase the risk of drug toxicity and drug-drug interaction.

## Appendix 7.5 Human Immunodeficiency Virus (HIV) Post-exposure Prophylaxis (PEP) Regimens

<b>Preferred HIV PEP Regimen</b>	
<b>Raltegravir (Isentress<sup>®</sup>; RAL) 400 mg PO twice daily</b> <b>Plus</b> <b>Truvada<sup>™</sup>, 1 PO once daily</b> <b>(Tenofovir DF [Viread<sup>®</sup>; TDF] 300 mg + emtricitabine [Emtriva<sup>™</sup>; FTC] 200 mg)</b>	
<b>Alternative Regimens</b>	
<i>(May combine 1 drug or drug pair from the left column with 1 pair of nucleoside/nucleotide reverse-transcriptase inhibitors from the right column; prescribers unfamiliar with these agents/regimens should consult physicians familiar with the agents and their toxicities)</i>	
Raltegravir (Isentress <sup>®</sup> ; RAL)	Tenofovir DF (Viread <sup>®</sup> ; TDF) + emtricitabine (Emtriva <sup>™</sup> ; FTC); available as Truvada <sup>™</sup>
Darunavir (Prezista <sup>®</sup> ; DRV) + ritonavir (Norvir <sup>®</sup> ; RTV)	Tenofovir DF (Viread <sup>®</sup> ; TDF) + lamivudine (Epivir <sup>®</sup> ; 3TC)
Etravirine (Intelence <sup>®</sup> ; ETR)	Zidovudine (Retrovir <sup>®</sup> ; ZDV; AZT) + lamivudine (Epivir <sup>®</sup> ; 3TC); available as Combivir <sup>®</sup>
Rilpivirine (Edurant <sup>®</sup> ; RPV)	Zidovudine (Retrovir <sup>®</sup> ; ZDV; AZT) + emtricitabine (Emtriva <sup>™</sup> ; FTC)
Atazanavir (Reyataz <sup>®</sup> ; ATV) + ritonavir (Norvir <sup>®</sup> ; RTV)	
Lopinavir/ritonavir (Kaletra <sup>®</sup> ; LPV/RTV)	
The following alternative is a complete fixed-dose combination regimen, and no additional antiretrovirals are needed: Stribild <sup>™</sup> (elvitegravir, cobicistat, tenofovir DF, emtricitabine)	
<b>Alternative Antiretroviral Agents for Use as PEP only with Expert Consultation<sup>2</sup></b>	
Abacavir (Ziagen <sup>®</sup> ; ABC) Efavirenz (Sustiva <sup>®</sup> ; EFV) Enfuvirtide (Fuzeon <sup>™</sup> ; T20) Fosamprenavir (Lexiva <sup>®</sup> ; FOSAPV) Maraviroc (Selzentry <sup>®</sup> ; MVC) Saquinavir (Invirase <sup>®</sup> ; SQV) Stavudine (Zerit <sup>®</sup> ; d4T)	
<b>Antiretroviral Agents Generally Not Recommended for Use as PEP</b>	
Didanosine (Videx EC <sup>®</sup> ; ddi) Nelfinavir (Viracept <sup>®</sup> ; NFV) Tipranavir (Aptivus <sup>®</sup> ; TPV)	
<b>Antiretroviral Agents Contraindicated as PEP</b>	
Nevirapine (Viramune <sup>®</sup> ; NVP)	

The alternative regimens are listed in order of preference; however, other alternatives may be reasonable based on patient and clinician preference

## Appendix 7.6 Recommended safe injection practices:

Safe injection practices	
1- Hand practices	<ul style="list-style-type: none"> <li>- Use aseptic techniques, including proper hand hygiene, when preparing or administering injections.</li> <li>- Minimize distraction, always maintain focus on task. Keep fingers/hands away from point of injection.</li> </ul>
2- Vial practices	<ul style="list-style-type: none"> <li>- Cleanse the access diaphragm of medication vials with 70% alcohol before inserting a needle into the vial.</li> <li>- Do not administer medications to more than one patient from single dose or single-use vials.</li> <li>- Dedicate multi-dose vials to a single patient whenever possible.</li> <li>- If multi-dose vials must be used for more than one patient, the vials should be restricted to a centralized medication area and should not be brought into the immediate patient treatment area (e.g., operating room, patient area).</li> </ul>
3- Syringe practices	<ul style="list-style-type: none"> <li>- Never administer medications from the same syringe to multiple patients, even if the needle is changed.</li> <li>- Never reuse a syringe or needle when withdrawing medication or solutions from multiuse vials or other containers, even when obtaining additional doses for the same patient.</li> <li>- Never use fluid infusion or administration sets (intravenous tubing) for more than one patient.</li> <li>- Avoid recapping of syringe</li> <li>- Use one hand (scope technique) if recapping necessary</li> </ul>
4- Disposal practices	<ul style="list-style-type: none"> <li>- Dispose of used sharps at their point of use in a sharps container that is closable, puncture-resistant, and leak-proof. Securely seal and replace sharps containers when they become three-quarters (3/4 or 75%) full.</li> </ul>
5- General recommendation	<ul style="list-style-type: none"> <li>- Eliminate unnecessary injections: Whenever possible, use oral, topical, or rectal medications instead of injectable medications.</li> <li>- Ensure lighting is adequate to prepare the injection safely. Do not bend, break, or otherwise manipulate used needles by hand.</li> </ul>