Injection Drug Use HIV Non-Occupational Post-Exposure Prophylaxis:

Policy and Procedure Template‡

‡ This template was created by the AIDS Education & Training Center (AETC) Program Rural Health Committee to provide a framework for healthcare facilities to use for providing medical care to patients seen for possible non-occupational blood-blood exposures to HIV. Recommendations in this template are based on the most recent guidelines of the U.S. Centers for Disease Control and Prevention at the time of its writing, August 2018. This template may be adapted for use in your healthcare facility without permission from the authors. The project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U1OHA28686 (AIDS Education and Training Centers National Coordinating Resource Center) awarded to the François-Xavier Bagnoud Center, Rutgers University School of Nursing. No percentage of this project was financed with non-governmental sources. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, HRSA, HHS or the U.S. Government.

POLICY

The purpose of this policy is to ensure that all patients receive CDC recommended preventative care options for HIV following non-occupational blood-blood exposure.

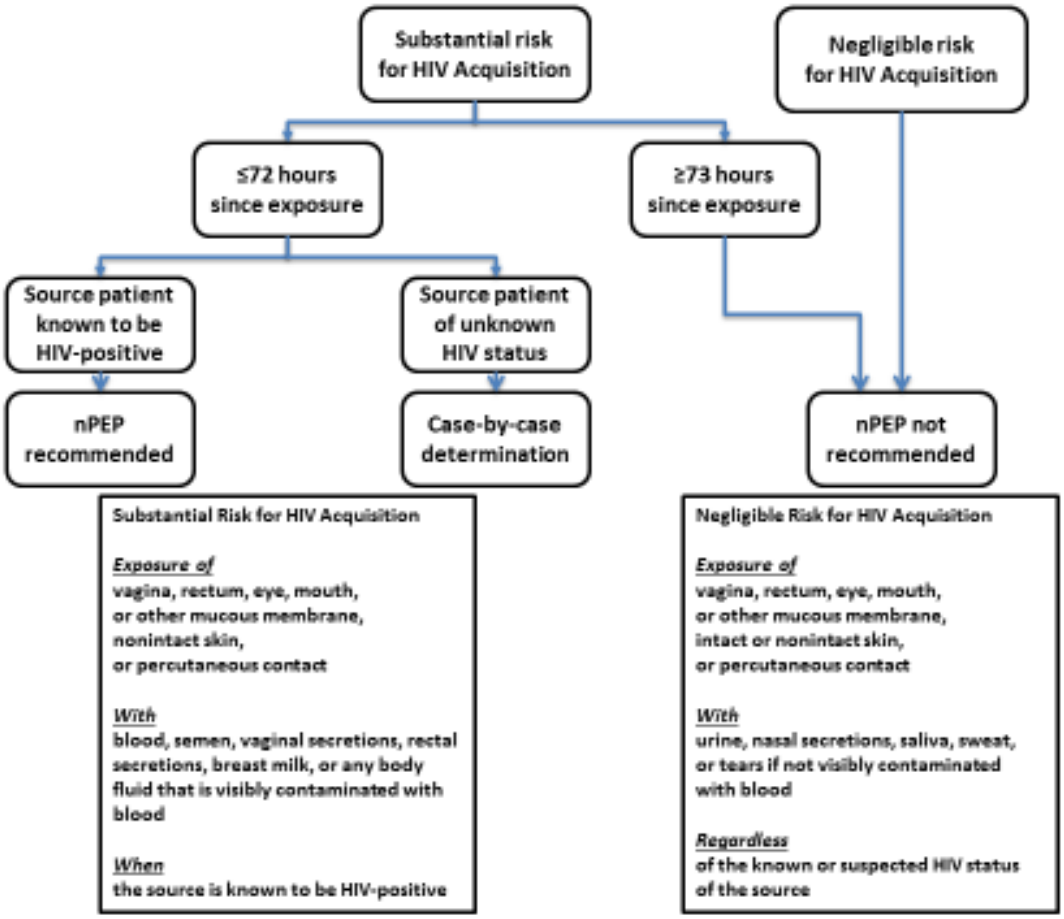
- A 28-day course of HIV non-occupational post-exposure prophylaxis (nPEP) should be considered for all HIV-negative persons who seek care ≤72 hours after a possible exposure to blood, or other potentially infectious body fluids of a person who is living with HIV (PLWH) or is of unknown HIV status, if that exposure represents a substantial risk for HIV acquisition.
- Adherence to nPEP medications is critical for nPEP effectiveness; thus, it is preferable to prescribe regimens that minimize the likelihood of side effects and the number of pills per day.
- For persons seeking care after injecting drugs, harm reduction counseling and resources should be offered regarding overdose prevention, infectious disease prevention, and substance use disorder treatment.

Healthcare provider occupational exposures, occupational pre-exposure prophylaxis (oPEP) procedures should be used (https://www.jstor.org/stable/10.1086/672271) and NOT this policy and procedure for assessment or treatment.

PROCEDURE

1. Evaluation

Figure 1. Algorithm for evaluation and treatment of possible non-occupational HIV exposures[1]



Potential risks of nPEP outweigh benefits for persons with perceived exposures that are of negligible or no conceivable risk of HIV acquisition, and nPEP is generally not indicated under these circumstances. Clinicians should be willing to decline requests for nPEP and provide supportive counseling and referrals in these situations.

Evaluation of the exposed patient should be conducted with the highest level of sensitivity and confidentiality. The following circumstances of the exposure and nPEP management should be recorded in the medical record with details, including:

EXPOSURE: Date and time of possible HIV exposure (was the high-risk exposure within the past 72 hours?)
EXPOSURE TYPE: Details of the exposure, including the type of blood exposure (shared needle, syringe, cooker, dilution water bottle, filter, etc.) and route of exposure (intravenous, subdermal, intranasal, intrarectal).

- The exposure should be evaluated for risk of HIV acquisition potential based on the type of body fluid (i.e., blood), and route of exposure (i.e., intravenous).
- Decisions about whether to prescribe nPEP should be individualized, weighing the likelihood of HIV transmission with the potential benefits and risks of nPEP use.

SOURCE: Details about exposure source person(s), if available

- HIV, hepatitis B, and hepatitis C status
- If the potential source person is a PLWH, try to ascertain their recent CD4 count and HIV viral load, current and previous antiretroviral therapy use, and antiretroviral resistance information.

PATIENT: Details about the exposed patient

- HIV, hepatitis A, hepatitis B, and hepatitis C status; vaccination history (HAV, HBV)
- Chronic medical conditions, drug allergies, and current medications and medication adherence, including pre-exposure prophylaxis (PrEP) use
- Pregnancy status, conception plans, and breastfeeding status
- The likelihood of pre-existing HIV infection should be determined for all individuals who present for nPEP
- The following information should be obtained:
    - Has the patient ever been tested for HIV, and if so, what were the result and date of their most recent HIV test?
    - The frequency, timing, and types of HIV risk behaviors since the last negative HIV test result. The likelihood of pre-existing HIV infection should be reviewed with the patient prior to nPEP prescription. If pre-existing HIV infection is suspected (e.g., the patient has symptoms of acute HIV infection such as fever or flu-like symptoms, lymphadenopathy, rash), and the HIV antigen/antibody or HIV antibody test (see below) is negative (or "non-reactive"), a blood-based HIV nucleic acid amplification test (NAAT, or "viral load") should be done to verify the presence or absence of acute HIV infection (see **Figure 2**).[2]
- **If patient reports ongoing risk behaviors (i.e., injection drug use) and is HIV-negative, counsel on the option of PrEP; transition to PrEP can occur immediately after completion of nPEP (if nPEP is not prescribed, PrEP initiation can occur once the patient is confirmed to be HIV negative and has adequate renal function)**
- If the patient is already known to be HIV-positive, are they receiving HIV care? Are they on antiretroviral therapy and virally suppressed? If not, contact an HIV expert or infectious disease (ID) provider to link to care as soon as possible. **The HIV-positive patient does not need nPEP**.
- If the patient is at-risk of HIV infection from the reported exposure (see **Figure 1**), and tests HIV-negative, they should be offered nPEP and started on it as soon as possible (preferably within 1-2 hours of the exposure or as soon as possible).

2. Laboratory Tests

- HIV test (preferably 4th generation HIV ag/Ab test) at the current visit (baseline) and again (for persons treated with nPEP) at 4-6 weeks and 3 months after nPEP initiation.
- Alanine transaminase (ALT), aspartate aminotransferase (AST), serum creatinine and estimated glomerular filtration rate (eGFR), at baseline, 2 weeks, and 4-6 weeks follow-up if taking a tenofovir DF (TDF)-based regimen.
- Hepatitis C antibody, HBV surface antigen, HBV core antibody, and HBV surface antibody at baseline and, if negative and again at 6 months post-exposure.
- Pregnancy test for those of pregnancy potential.
- If HIV seroconversion occurs during or after nPEP (HIV test is "reactive" or positive after a baseline "non-reactive" or negative test), contact an HIV expert or ID provider immediately and provide guidance to the patient as

recommended by an expert. Immediate linkage to care for early antiretroviral therapy initiation and HIV primary care is essential.

3. nPEP Medication Regimen

EARLY treatment of the exposed patient is the PRIORITY and should NOT be delayed while waiting for lab results.
START nPEP if the patient has a substantial risk for infection, and the HIV test is negative ("non-reactive").
INITIATE nPEP within 1-2 hours of exposure or as soon as possible and continue for 28 days.

If a significant exposure occurred but the patient is too distraught (e.g., following an overdose) to engage in a discussion about the nPEP regimen at the initial assessment, the clinician should offer a first dose of the medications and arrange for follow-up within 24 hours to further discuss the indications for nPEP.

Preferred nPEP regimen for adolescents and adults (≥ 13 years old) with normal renal function (creatinine clearance >59 mL/min):

tenofovir DF/emtricitabine (TDF/FTC) 300/200 mg (Truvada®), 1 tablet PO daily + dolutegravir (Tivicay®)* 50 mg, 1 tablet PO daily for 28 days**
OR
TDF/FTC 300/200 mg (Truvada®) 1 tablet PO daily + raltegravir (Isentress®) 400 mg, 1 tablet PO BID for 28 days
OR ALTERNATIVE
TDF/FTC 300/200 mg (Truvada®) 1 tablet once daily + darunavir (Prezista®) 800 mg, 1 tablet daily + ritonavir 100 mg, 1 tablet daily for 28 days

* *If the patient is a woman who may conceive while on the medication, or is in the early stages of pregnancy, do not prescribe dolutegravir.*

** If pharmacist will not dispense less than a 30-day supply of nPEP medications (because of cost to pharmacist of removing tablets from a 30-day bottle), then a prescription for a 30-day supply should be given and patients should be instructed to only take medications for 28 days.

Preferred nPEP regimen for adults and adolescents aged ≥ 13 years with renal dysfunction (creatinine clearance ≤ 59mL/min):

zidovudine and lamivudine with *both doses adjusted to the degree of renal function* + raltegravir (Isentress®) 400 mg, 1 tablet PO BID for 28 days
OR
zidovudine and lamivudine with *both doses adjusted to degree of renal function* + dolutegravir (Tivicay®)* 50 mg, 1 tablet PO daily for 28 days
OR ALTERNATIVE
zidovudine and lamivudine with *both doses adjusted to degree of renal function* + darunavir (Prezista®) 800 mg, 1 tablet PO daily + ritonavir (Norvir®) 100 mg, 1 tablet PO daily, all taken at the same time, with food, for 28 days

* *If the patient is a woman who may conceive while on the medication, or is in the early stages of pregnancy, do not prescribe dolutegravir.*

- ♦ The dosing of TDF and FTC should be adjusted in patients with baseline creatinine clearance ≤ 59 mL/min. TDF should be used with caution in individuals with renal insufficiency or who are taking nephrotoxic medications. Fixed-dose combinations should not be used in patients who need dose adjustment.

- ♦ NOTE: It is recommended that all individuals be tested for the presence of chronic HBV before initiating medications that are active against HBV. This would include several medications that may be used in nPEP regimens: tenofovir (TDF or TAF), emtricitabine, and lamivudine. Severe acute exacerbations of HBV (including decompensated liver disease and liver failure) have been reported in patients who discontinue HBV-active medications. Patients with HBV should be closely monitored with both clinical and laboratory follow-up for at least several months after stopping Truvada® (TDF/emtricitabine) or other HBV-active medications. If appropriate, initiation of chronic anti-hepatitis B therapy may be warranted: https://www.aasld.org/sites/default/files/HBVGuidance_Terrault_et_al-2018-Hepatology.pdf.

4. Pregnancy

- For women of childbearing potential, document last menstrual period, and perform rapid urine pregnancy test. If the pregnancy test is negative, and vaginal exposure to semen occurred, offer emergency contraception on site.
- Pregnancy should not preclude nPEP use, but if the patient is in the early stages of pregnancy (i.e., < 8 weeks) or at risk of conceiving while on nPEP, dolutegravir should not be used.[4]
- If the woman is < 8 weeks pregnant or reports wanting to become pregnant and has normal renal function (creatinine clearance >59 mL/min), the recommended nPEP regimen is:

TDF/FTC (Truvada®) 300/200 mg, 1 tablet PO daily + raltegravir (Isentress®) 400 mg, 1 tablet PO BID for 28 days

- Counsel on the risk of breastfeeding after a possible HIV exposure (there is a risk of transmission to the infant through breastfeeding if the mother acquires HIV).[5]

- If alternative nPEP medication is required (i.e., renal insufficiency, pediatric patient, breastfeeding woman, etc.), consult an HIV expert or ID provider immediately, or consult with a clinician from the National Clinician Consultation Center PEPline (nccc.ucsf.edu): 1-888-448-4911.

For questions, contact your HIV experts/ID providers or consult with the National Clinician Consultation Center PEP Hotline (PEPline): 1-888-448-4911

4. Patient Education

- Instruct the patient to use condoms during vaginal and/or anal sex or abstain from sex until HIV transmission has been ruled out (with negative testing 3 months after the possible exposure) or the source person has been found to be HIV negative.
  - Educate the patient on possible nPEP side effects to improve adherence (nausea, GI upset, headache, and myalgias are the most common) and consider prescribing an anti-emetic at the same time as HIV nPEP.
  - Reinforce the need for follow-up appointments within 24-72 hours of the initial assessment, 4-6 weeks, and 3 months and assist with referring/appointment making with the patient prior to being discharged.
- Counsel on naloxone administration – provide overdose response education to any family members or friends available to provide naloxone if overdose occurs. Naloxone may be injected (IM, IV, SC) or sprayed intranasally. Injectable naloxone comes in a lower concentration (0.4mg/1ml given by auto-pen injection once, then repeated after 2-3 minutes if not responding) than intranasal naloxone (2mg/2mL). Intranasal naloxone is administered by giving one spray in one nostril, then repeating after 2-3 minutes if not responding. A naloxone auto-pen or nasal spray prescription should be provided and once prescription is filled, the pen or spray bottle kept on the person or by family/friends who may use it if needed.
- Counsel against mixing drugs, sharing needles, syringes*, and other injection equipment. Provide

information on syringe access or needle exchange programs in the community if available.

- Assess for readiness for substance use treatment services and refer/initiate treatment as appropriate.
- Provide follow-up referral appointment for getting hepatitis A, B, and C titer results, and hepatitis A and B vaccines if titers are negative. Refer for follow-up monitoring and treatment if hepatitis C antibody positive.

syringe sharing for injection drugs as well as needleless syringes for administering intrarectal drugs

REFERENCES

[1] U.S. Department of Health and Human Services Centers for Disease Control and Prevention. *Updated Guidelines for Antiretroviral Postexposure Prophylaxis After Sexual, Injection Drug Use, or Other Nonoccupational Exposure to HIV—United States, 2016*. Downloaded from https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf on 7/10/2018.

[2] Centers for Disease Control and Prevention and Association of Public Health Laboratories. Laboratory Testing for the Diagnosis of HIV Infection: Updated Recommendations. Available at http://stacks.cdc.gov/view/cdc/23447. Published June 27, 2014. Accessed 7/10/2018.

[3] U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Sexually Transmitted Diseases Treatment Guidelines, 2015. *Morbidity and Mortality Weekly Report*. June 5, 2015. 64(3). https://www.cdc.gov/std/tg2015/sexual-assault.htm.

[4] U.S. Department of Health and Human Services Centers for Disease Control and Prevention. Update: Interim Statement Regarding Potential Fetal Harm from Exposure to Dolutegravir – Implications for HIV Post-exposure Prophylaxis (PEP). Attachment to *Updated Guidelines for Antiretroviral Postexposure Prophylaxis After Sexual, Injection Drug Use, or Other Nonoccupational Exposure to HIV—United States, 2016*. Downloaded from https://www.cdc.gov/hiv/pdf/programresources/cdc-hiv-npep-guidelines.pdf on 7/10/2018.

[5] U.S. Department of Health and Human Services. *Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV Transmission in the United States*. Downloaded from https://aidsinfo.nih.gov/guidelines on 7/10/2018.

PATIENT DISCHARGE INSTRUCTIONS

You may be at risk of becoming infected with the human immunodeficiency virus (HIV) because of your sexual exposure or assault, and you have been counseled on HIV infection risk, and on medications for HIV prevention called nPEP.

- **nPEP is most effective if started as soon as possible (within 1-2 hours after the exposure or as soon as possible if)**, but no later than **72 hours** after the exposure. nPEP should be taken for **28 days** to decrease the likelihood of becoming infected with HIV.
- **It is very important to take the nPEP medicines every day, without interruption.**
- Sometimes the medicines can cause unpleasant side effects like nausea and fatigue as well as diarrhea, headaches and rashes.
- The most common medication side effect is nausea. If you experience nausea, take the prescribed anti-nausea medicine ½ hour before taking the nPEP medications.
- Some nPEP medications can interact with other prescriptions, street drugs, or over the counter medications, so please inform your healthcare provider if you are using any other medicines or drugs in addition to the nPEP medicines.
- Please call your healthcare provider if any side effects become concerning to you, because these medications SHOULD NOT be discontinued once started unless side effects are severe or life-threatening.

You will need a follow-up appointment with _____within the next few days, at the following location _____ and phone number _____ to: _____

- review your lab results and check in about any side effects that you may be having or any other any problems with taking the nPEP medications
- determine if you should continue to take the medications

You will be taking these medications (circled or checked):

For adults and adolescents aged ≥ 13 years with normal renal function

(creatinine clearance > 59mL/min):

☐ Truvada® 300/200 mg, one tablet once daily by mouth with dolutegravir* (Tivicay®) 50 mg, one tablet by mouth once daily, with or without food for 28 days.

** Non-pregnant **women at risk of pregnancy** and who are not using reliable birth control; and, **women early in pregnancy should NOT take dolutegravir**.*

OR

☐ Truvada® 300/200 mg, one tablet by mouth once daily with raltegravir (Isentress®) 400mg, one tablet by mouth twice daily, with or without food for 28 days.

OR

☐ Truvada® 300/200 mg, one tablet by mouth once daily with darunavir (Prezista®) 800 mg, one tablet by mouth once daily + ritonavir (Norvir®) 100 mg, one tablet by mouth once daily for 28 days. This is a total of 3 pills all taken at the same time, with food.

For adults and adolescents aged ≥ 13 years with renal dysfunction (creatinine clearance ≤ 59mL/min):

- ☐ zidovudine _____ + lamivudine _____ + raltegravir (Isentress®) 400 mg, one tablet by mouth twice daily for 28 days.

OR

- ☐ zidovudine _____ + lamivudine _____ + dolutegravir (Tivicay®) 50 mg, one tablet by mouth once daily, with or without food for 28 days.

OR

- ☐ zidovudine _____ + lamivudine _____ + darunavir (Prezista®) 800 mg, one tablet by mouth once daily + ritonavir (Norvir®) 100 mg, one tablet by mouth once daily, all taken at the same time with food for 28 days.

FOR NAUSEA:

- ☐ Ondansetron (Zofran®) 8 mg, one tablet by mouth once — take ½ hour before you take nPEP medications (if needed for nausea)

- ☐ _____

FOR OVERDOSE REVERSAL:

- ☐ Naloxone **spray** (2mg/2mL); give one spray in one nostril, then repeat after 2-3 minutes if not responding

It is important that you:

- take all nPEP medications as prescribed and at the same time every day
- use only sterile, new needles, syringes, and equipment not used by others when injecting drugs
- Contact _____ at _____ for assistance with substance use disorder treatment
- use a condom during sex (or abstain from sex) until we are certain you have not been infected with HIV (with negative HIV test results 3 months from today)
- complete follow-up HIV testing and any additional testing/monitoring as instructed

Thank you for taking the difficult step to receive help.

_____ _____

Signature of Patient Date/Time

_____ _____

Signature of Examiner Date/Time