



Occupational Health Standard Treatment Guidelines Occupational HIV Exposure

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DEFINITIONS

Employee - refers to all paid and unpaid persons working in a Virginia Department of Corrections setting who have the potential for exposure to any infectious materials such as blood or body fluids.

Occupational HIV Exposure - is when an employee is placed at risk for HIV infection and therefore requires consideration for postexposure prophylaxis (PEP).

Healthcare Personnel (HCP) - refers to all paid and unpaid persons working in a healthcare setting who have the potential for exposure to any infectious materials such as blood, body fluids, medical supplies, equipment, and environmental surfaces with these substances from a patient in a healthcare, lab, or prison setting.

Licensed Medical Practitioner - is a physician, dentist, physician's assistant, or nurse practitioner that is licensed to prescribe medications under the laws of the Commonwealth of Virginia.

Occupational Health - is a field of healthcare that primarily focuses on maintaining the physical, mental, and social health of employees and is designed to prevent health-related challenges in the workplace.

Source Patient is the individual whose blood or body fluids were the source of the exposure.





GUIDELINES FOR THE MANAGEMENT OF DOC STAFF, VOLUNTEERS, AND CONTRACT STAFF WITH OCCUPATIONAL EXPOSURE TO HIV AND RECOMMENDATIONS FOR POST-EXPOSURE PROPHYLAXIS.

These recommendations are intended to provide guidance to employees and prescribers. They may be modified on a case-by-case basis. Whenever possible, consulting an expert with experience in the use of antiviral drugs is advised, especially if a recommended drug is not available or if the drugs are poorly tolerated.

Refer to the standard treatment guidelines for occupational body fluid exposure for guidance on decontamination and procedure following an exposure

PROCEDURE

I. Objectives

- A. To provide information and guidelines on human immunodeficiency virus (HIV) post-exposure prophylaxis (PEP) to VADOC employees.
- B. To provide information on HIV PEP medication starter kits to all employees.
- C. To provide guidelines for off-site licensed medical practitioners when evaluating and treating employees for Occupational HIV exposure.

II. Discussion

- A. Avoiding occupational bloodborne pathogen exposures in correctional settings, including healthcare, is the primary way to prevent transmission of infection with HIV. Standard precautions, including personal protective equipment (e.g. gown, mask, gloves), and work practice controls (e.g. safety needles, safe injection practices) are essential for effective prevention of infection from bloodborne pathogens.
- B. HIV establishes infection very quickly, often within 24-72 hours after exposure. Postexposure prophylaxis (PEP) is an emergency medical response that can be used to protect individuals exposed to HIV as long as PEP is started within 72 hours of exposure. PEP consists of taking antiviral medications as soon as possible after exposure to HIV, so that the exposure will not result in HIV infection. PEP requires prompt reporting, evaluations, counseling, treatment, postexposure follow-up, and documentation.
- C. PEP is not recommended for people whose exposure occurred more than 72 hours prior to seeking treatment. PEP is unlikely to be effective after this time.
- D. PEP is not recommended for people who are exposure to non-blood contaminated body fluids, as their risk of getting HIV is very low.
- E. PEP is mostly effective in preventing HIV transmission when it is taken correctly. Research suggests that taking PEP correctly and as soon as possible after exposure can reduce the risk of getting HIV by more than 80%.

III. Facility Guidelines After an Occupational HIV or Potential HIV Exposure Occurs

- A. Each facility shall have a plan to ensure that all employees, including healthcare personnel, have knowledge related to the prevention of and response to HIV exposure.
- B. An occupational exposure to HIV should be regarded as an **URGENT MEDICAL CONCERN**. **Immediately** after an occupational exposure to blood or other body fluid containing blood, the source patient and the exposed employee should be evaluated by a licensed medical practitioner to





determine the need for HIV PEP.

- C. All HCP, facility human resources staff, and Institutional Safety Specialist (ISS) should be familiar with the location and contents of the HIV PEP starter kits. See Attachment #1 for kit contents.
- D. HIV PEP starter kits shall be stocked in all facilities. Major facilities will minimally stock 2 kits; field units and community correction facilities will minimally stock 1 kit. HIV PEP kits will be stored in the pharmacy of major facilities and field units. Kits will be stored on site at community corrections facilities.
- E. Any employee with an occupational blood or other body fluid containing blood exposure will take the facility's HIV PEP starter kit and a copy of these guidelines (to give to the off-site licensed medical provider) with them when they go to the local emergency department for urgent evaluation and possible treatment by a licensed medical practitioner.
- F. HIV PEP, when indicated and prescribed by an off-site licensed medical practitioner, may be started immediately (preferably within hours of exposure) using the stocks HIV PEP starter kit which contains 4 days of medication. Additional HIV PEP medication will be sent to the employee's pharmacy of choice to pick up within 4 days of the emergency department visit.
- G. Employees with an occupational exposure to HIV should receive follow-up counseling, postexposure testing, and medical evaluation regardless of whether or not they receive HIV PEP. This will be managed by a community licensed medical practitioner from Workman's Compensation's list of approved practitioners.
- H. The facility's HIV PEP starter kit may be used by an employee only if an off-site licensed medical practitioner, following the evaluation of the exposed employee, recommends PEP and the employee consents. A signed informed consent for HIV PEP (Attachment #2) needs to be obtained prior to the exposed employee starting the medication in the HIV PEP starter kit. A copy of this consent will stay in the kit and the original will go to the facility's human resources office to be placed in the employee's medical file.
- I. It is the responsibility of the Health Authority or designee to notify the off-site licensed medical practitioner or other designated hospital personnel that a possible HIV exposed employee is in route. Any medical information concerning the source person should also be provided at that time. This information should include the source persons:
 - 1. CD4 count
 - 2. Viral load
 - 3. Current and previous antiretroviral therapy
 - 4. Co-infection information (i.e. Hepatitis B and C virus)
- J. The source person should be evaluated by the facility's licensed medical provider and appropriate lab tests ordered/performed.

IV. Recommendations for the Off-Site Licensed Medical Professional Evaluating and Treating the Employee with Occupational HIV Exposure

- A. Provide pretest counseling and perform a baseline HIV antibody test. Consider testing for other infectious diseases transmitted through occupational blood exposure, particularly Hepatitis B Virus and Hepatitis C Virus. Obtain complete blood count, chemistry panel, and liver function tests at baseline. For women who may be pregnant, perform a urine pregnancy test.
- B. Recommendations for HIV PEP should be explained to the employee who has sustained occupational HIV/potential HIV exposure.





- C. If the evaluating licensed medical professional needs consultation with persons having expertise in antiretroviral treatment and HIV transmission, they may contact the National Clinicians Postexposure Prophylaxis Hotline at 1-888-442-4911.
- D. The HIV PEP starter kit that the employee brings with them to the ER contains 4 days of HIV PEP medication (see medications below). If this kit is used, the **INFORMED CONSENT TO POSTEXPOSURE PROPHYLAXIS** (Attachment # 2) will need to be signed by the employee and the treating provider and then placed back in the starter kit. A prescription for the 4 days of medications, signed by the licensed medical practitioner, will need to be put in the starter kit.

<u>Drug</u>	<u>Quantity in kit</u>	<u>Recommended Dose</u>
Isentress (Raltegravir RAL) 400 mg tab	8 tablets	1 tab PO BID
Truvada (Tenofovir DF 300 mg + Emtricitabine 200 mg) Tab	4 tablets	1 tab PO once daily

- E. A prescription for the remaining 24 days of HIV PEP medications needs to be sent to the employee's pharmacy of choice.

V. Education for the Exposed Employee

- A. The overall risk of contracting HIV from a needlestick/sharps injury is considered very low (0.3% or 1 in every 3000 needlestick exposures to HIV infected blood will result in HIV infection). The risk can increase depending on the depth of the puncture, the amount of visible blood on the needle/sharps, and whether the source patient has a high viral load at time of injury. The risk of HIV transmission after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be 0.03% (1 in 3000). Occupational HIV-infected blood exposure of non-intact skin is estimated at less than 1%. A small amount of blood on intact skin likely poses no risk at all. (See Attachment #2-4)
- B. For exposure without risk of HIV infection, PEP is not recommended because the drugs used to prevent infection may have serious side effects. There is limited data regarding toxicity of PEP medications to pregnant women.
- C. Between 1985 and 2013, there were 58 confirmed cases of occupationally acquired HIV cases in the United States reported to the Center for Disease Control (CDC).
- D. Side effects of HIV PEP medications are common and occur in 30-50% of patients. Severe side effects occur in 5-30% of patients and often require discontinuing the medication. Common side effects include but are not limited to nausea, vomiting, diarrhea, abdominal pain, rash, fatigue, headache, dizziness, cytopenia, neuropathy, and hepatitis. Many HIV exposed individuals fail to complete their 28-day regimen due to side effects. Regularly scheduled follow-up either in person or by phone has been shown to greatly improve adherence.
- E. Any or all medications for PEP may be declined by the employee.
- F. Even with early administration of PEP medication (within the first 4 hours), the prevention of transmission is not 100%.
- G. Each employee should weigh the risks (potential side effects and toxicity) versus benefits. The treating licensed medical practitioner can discuss the risks and benefits during the employee's evaluation in the ER.
- H. HIV exposed employees are advised to use the following measures to prevent secondary transmission during the 3-month follow-up period, especially the first 6-12 weeks after exposure.
 - 1. Exercise sexual abstinence or use of condoms to prevent sexual transmission and avoid pregnancy.





2. Refrain from donating blood, plasma, organs, tissue, or semen.
3. If an exposed female is breast feeding, she should be counseled about the risk of HIV transmission through breast milk.
4. Exposed employees should seek immediate medical attention of symptoms of HIV seroconversion occur. These symptoms include fever, fatigue, rash, swollen lymph nodes, or myalgias (most likely to occur 2-6 weeks after exposure).

VI. Follow-up 72 Hours After Exposure

- A. The Occupational Health Nurse Practitioner (NP) will contact the facility's health authority to see if there is additional information on the source patient (lab results).
- B. The Occupational Health NP will contact the employee via phone and email to answer questions or update the employee on the source patient if needed.

VII. Postexposure Follow-Up Testing

- A. Human Resources will give the exposure employee an option of 3 panel physicians for follow-up evaluation and testing. The panel physician will determine appropriate follow-up testing and treatment if necessary.
- B. Repeat blood testing for infectious diseases will likely be performed at 6 weeks and 4 months to determine whether HIV or other infectious disease transmission has occurred. Extended HIV exposure follow-up testing (6 and 12 months) is no longer recommended with the standard HIV test that is widely used currently, unless the employee contracts Hepatitis C Virus from the exposure. Extended testing can add to the anxiety for exposed employees and their families.

VIII. Reporting and Documentation

- A. The employee should report the occupational exposure to their supervisor who will notify the facility's Health Authority, Institutional Safety Supervisor and Human Resource Officer (HRO). The employee needs to complete the appropriate documentation.
- B. The HRO should notify the Occupational Health NP of the exposure.
- C. All information and documentation regarding a possible occupational exposure to HIV is confidential and should be treated as such.

REFERENCES

[CDC Clinical Guidance for PEP](#)
[The National Institute of Health](#)
[PEP Quick Guide for Occupational Exposures](#)
UpToDate

ATTACHMENTS

Attachment # 2-1 - Contents of the HIV PEP Starter Kit
Attachment # 2-2 - Informed Consent for Postexposure Prophylaxis
Attachment # 2-3 - Recommendations for the Off-Site Licensed Medical Professional Evaluating and Treating the Employee with Occupational HIV Exposure
Attachment # 2-4 - Education for the Exposed Employee





Attachment #1

Contents of the HIV PEP Starter Kit

1. 4 days of HIV PEP medications

<u>Drug</u>	<u>Quantity in kit</u>	<u>Recommended Dose</u>
Isentress (Raltegravir RAL) 400 mg tab	8 tablets	1 tab PO BID
Truvada (Tenofovir DF 300 mg + Emtricitabine 200 mg) Tab	4 tablets	1 tab PO once daily

2. Copy of Standard Treatment Guidelines for Occupational Blood and Body Fluid Guidelines
3. Copy of Standard Treatment Guidelines for Occupational HIV Exposure including Attachments # 1, # 2, and #3





Attachment #2

Informed Consent for Postexposure Prophylaxis

I,		an employee of the Virginia Department of Corrections		
	<i>Print Employee Name</i>			
	has been informed by		of	
		<i>Print Prescriber Name</i>		<i>Facility Name</i>

that I have been placed at risk for HIV infection due to exposure with possibly contaminated body fluids. The prescriber has informed me of the nature of the exposure and treatment and has explained the benefits, possible risks and side effects of this treatment. I understand that, although the prescriber has explained this, there may be other side effects, and I should promptly inform the prescriber if I experience any changes in my condition. I understand that, although the prescriber believes that this treatment will be beneficial to me, there is no guarantee as to the results that may occur.

Check Licensed Medical Practitioner's recommended regimen

☐ (check box) **PEP Treatment:** Combination of Isentress & Truvada

<u>Drug</u>	<u>Quantity in kit</u>	<u>Recommended Dose</u>
Isentress (Raltegravir RAL) 400 mg tab	8 tablets	1 tab PO BID
Truvada (Tenofovir DF 300 mg + Emtricitabine 200 mg) Tab	4 tablets	1 tab PO once daily

☐ (check box) **No Medication Treatment at this time**

I, the employee, have received counseling from a licensed medical practitioner on the risks and benefits of HIV PEP for my exposure and

☐ (check box) **CONSENT**

☐ (check box) **DECLINE**

HIV PEP at this time.

Employee Name (print)		Employee Signature	Date
Licensed Medical Practitioner Name (print)		Licensed Medical Practitioner Signature	Date

Postexposure Follow-up: 72 hours after exposure with the VADOC Occupational Health Nurse Practitioner. Six (6) weeks after exposure with a Workman's compensation panel physician.





Attachment #3

Recommendations for the Off-Site Licensed Medical Professional Evaluating and Treating the Employee with Occupational HIV Exposure

- A. Provide pretest counseling and perform a baseline HIV antibody test. Consider testing for other infectious diseases transmitted through occupational blood exposure, particularly Hepatitis B Virus and Hepatitis C Virus. Obtain complete blood count, chemistry panel, and liver function tests at baseline. For women who may be pregnant, perform a urine pregnancy test.
- B. Recommendations for HIV PEP should be explained to the employee who has sustained occupational HIV/potential HIV exposure.
- C. If the evaluating licensed medical professional needs consultation with people who have expertise in antiretroviral treatment and HIV transmission, they may contact the National Clinicians Postexposure Prophylaxis Hotline at 1-888-442-4911.
- D. The HIV PEP starter kit that the employee brings with them to the ER contains 4 days of HIV PEP medication (see medications below). If this kit is used, the **INFORMED CONSENT TO POSTEXPOSURE PROPHYLAXIS** (Attachment # 2) will need to be signed by the employee and the treating provider and then placed back in the starter kit. A prescription for the 4 days of medications, signed by the licensed medical practitioner, will need to be put in the starter kit.

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- E. A prescription for the remaining 24 days of HIV PEP medications needs to be sent to the employee's pharmacy of choice.





Attachment #4

Education for the Exposed Employee

- A. The overall risk of contracting HIV from a needlestick/sharps injury is considered very low (0.3% or 1 in every 3000 needlestick exposures to HIV infected blood will result in HIV infection). The risk can increase depending on the depth of the puncture, the amount of visible blood on the needle/sharps, and whether the source patient has a high viral load at time of injury. The risk of HIV transmission after exposure of the eye, nose, or mouth to HIV-infected blood is estimated to be 0.03% (1 in 3000). Occupational HIV-infected blood exposure of non-intact skin is estimated at less than 1%. A small amount of blood on intact skin likely poses no risk at all.
- B. For exposure without risk of HIV infection, PEP is not recommended because the drugs used to prevent infection may have serious side effects. There is limited data regarding toxicity of PEP medications to pregnant women.
- C. Between 1985 and 2013, there were 58 confirmed cases of occupationally acquired HIV cases in the United States reported to the Center for Disease Control (CDC).
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 - 3. If an exposed female is breast feeding, she should be counseled about the risk of HIV transmission through breast milk.
 - 4. Exposed employees should seek immediate medical attention if symptoms of HIV seroconversion occur. These symptoms include fever, fatigue, rash, swollen lymph nodes, or myalgias (most likely to occur 2-6 weeks after exposure).

