

MANAGEMENT OF OCCUPATIONAL EXPOSURE TO BLOOD BORNE PATHOGENS

1. PURPOSE: To describe the actions to be taken when a medical center employee has percutaneous (e.g. needlestick or cut) or mucous membrane (e.g. splash to eye or mouth) exposure to blood or other potentially infectious material (OPIM) or has significant cutaneous exposure. Examples of OPIM and significant exposure are attached (Attachment A).

2. POLICY: VAMHCS Employees exposed to blood or other potentially infectious material will receive prompt evaluation and appropriate testing, offer of treatment, if necessary, counseling and follow-up care at VA expense. Infection incurred in the performance of duties is covered by the injury compensation provisions of 5 U.S.C., Chapter 81. Initial evaluation and treatment will be offered, by the VAMHCS Employee Health Services, to University of Maryland affiliated residents and students with such exposures. University of Maryland, Baltimore Office of Student affairs and Employee Health, will provide follow up and treatment. All blood exposures will be monitored on a quarterly basis within the VAMHCS for compliance with the new portion of the Blood Borne Pathogen Occupational Safety and Health Administration (OSHA) regulation

3. BACKGROUND: Inadvertent exposure to blood from patients infected with Human Immunodeficiency Virus (HIV), Hepatitis B, or Hepatitis C places employees at risk of becoming infected. Prevention of exposure is addressed in the facility exposure control plan, and includes identifying employees with potential exposure to blood so that they can be offered the Hepatitis B vaccine, as well as practices and equipment which prevent exposure. Treatment is available which can reduce the risk of an employee becoming infected after an inadvertent exposure, but this treatment must be started promptly (within two of hours) for it to be effective.

4. RESPONSIBILITY:

a. **Employees** are responsible for immediately notifying their supervisors of occupational exposure to blood borne pathogens, seeking prompt evaluation in the Employee Health Clinic or emergency care area, completing required paperwork, and for following up in Employee Health as recommended.

b. **Supervisors** are responsible for ensuring prompt medical evaluation of the exposed employee and for completing and submitting U.S. Department of Labor CA form-1 (Report of Occupational Injury) and Veterans Administration VA Form 2162 (Report of Accident) within the required time frame through Automated Safety Incident Surveillance & Tracking System (ASISTS).

c. **Evaluating Health Care Providers** (Employee Health, Emergency Care Services Attending or Administrative Officer of the Day (AOD)/Medical Officer of the Day (MOD)) are responsible for:

(1) Assessing the employee's risk of infection based on injury and source patient risk (Attachments A, B, and C).

(2) Following procedures for evaluating risk, providing treatment, and ensuring follow-up.

(3) Documenting the risk assessment and interventions and advising employee to follow-up with Employee Health on the next business day.

(4) Maintaining confidentiality as per regulations (Public Law 100-322, Section 121).

(5) Contacting the attending or other Primary Care Provider caring for the source patient to request and consent for blood tests needed to assess risk (Attachment D).

d. **Primary Care Provider or Attending of the source patient** is responsible for ordering and procuring the appropriate laboratory tests, including obtaining informed consent of the patient for HIV testing (Attachment D), unless this status is known to be positive.

e. **Clinical Laboratory** is responsible for providing the required laboratory tests results in a timely manner to VAMHCS Employee Health or Needle stick Hotline Advisor during non-administrative hours.

f. **Employee Health Program Coordinator** is responsible for ensuring that the evaluation and treatment of exposed employees is timely and appropriate. Exposures are tracked and reported in ASISTS, Infection Control and Environment Of Care Committees, to ensure mechanism in place for effective follow-up of exposed employees

g. **Hospital Epidemiologist** is responsible for collaborating with Employee Health in exposure assessment, treatment recommendations, and tracking issues, when appropriate.

h. **Chief, Pharmacy** is responsible for maintaining a (3) three-day supply of anti-retroviral agents at each VAMHCS site, for weekends, and for holidays.

i. **The Site Pharmacy** is responsible for designating storage areas, accessible after regular hours, of post-exposure medications and their attached medication forms and informational pamphlets.

5. ACTIONS:

a. **The exposed employee:**

(1) Should immediately wash exposed skin with soap and water and flush/irrigate exposed mucous membranes (mouth, eye or other) with water.

(2) Will immediately report to the supervisor.

(3) Exposed employees of the Baltimore Rehabilitation and Extended Care Center (BRECC) or community-based outpatient clinics will be evaluated via coordination with the Needlestick Hotline Advisor (410-447-STIK) (Attachment C).

b. **The supervisor will:**

(1) Immediately refer the exposed employee to the Employee Health Clinic. If the clinic is closed, the employee will be referred to the emergency care area for medical evaluation and treatment.

(2) Obtain from the employee and complete Report of Accident (2162 in ASISTS), as well as advise the exposed employee of their right to file workers compensation claim CA-1.

c. The Employee Health Provider/Evaluating Clinician will:

(1) Document the blood borne exposure either on Medical Certificate (VA 10-10) or Electronic Blood Borne Pathogen Exposure Note Template.

(2) Use the information gathered about the type of exposure and risk to the source patient to determine tests and treatment indicated, according to the attached algorithm (Attachment E).

(3) Review the Hepatitis B, Hepatitis C, and HIV status of the source patient, or contact the source patient's treating physician if status is not known.

(4) Request baseline HIV, and Needlestick Panel on Target (Hepatitis B antibody will only be done if employee has no documented antibody, Hepatitis C Antibody) and Alanine Aminotransferase Activity (ALT) will only be done if source is positive for Hepatitis C) obtain signed informed consents (Attachment D & F) for HIV and Hepatitis testing, and document on the electronic form lab test ordered, and whether employee accepted or declined testing.

(5) Prescribe Hepatitis B immune globulin, and/or Hepatitis B vaccine, and/or anti-retroviral drugs according to the attached algorithms (Attachment E) calling for expert advice if needed (Attachment C, Needlestick Hotline). The side effects and risks vs. benefits of anti-retroviral therapy should be discussed with any employee offered anti-retroviral treatment. The decision to prescribe anti-retroviral agents should be discussed with the Hospital Epidemiologist or by calling the Needlestick Hotline. HIV post-exposure prophylaxis (PEP) if indicated should be started within one to two hours of exposure whenever possible. Employees electing PEP must agree to initial evaluation (HIV, CBC with differential, renal and liver function tests, CPK and if female, pregnancy test,) and follow-up evaluations in Employee Health every two weeks while under treatment, and at the end of treatment. There is currently no effective Hepatitis C prophylaxis available.

(6) Administer the Tetanus Diphtheria Booster Intra-Muscular (IM) if last tetanus shot over ten years ago or unknown.

(7) Review measures the employee should take to prevent transmitting any acquired infection, and advise the employee to report to Employee Health for follow-up the next business day.

(8) Give the employee a copy of the Center for Disease Control (CDC) pamphlet, "Exposure To Blood - What Health-Care Workers Need to Know" at website http://www.cdc.gov/ncidod/hip/Blood/exp_blood.htm.

d. Any visitor exposed to blood or other potentially infectious material (OPIM) while on site will receive emergency evaluation and be offered treatment as outlined in C(1) through C(8). Documentation will be made on a Report of Contact, which will be forwarded to the Office of Risk Management. Visitors so exposed will be referred to their personal health care providers or the Health Department for further follow-up.

e. Follow-up:

(1) All employees with blood or OPIM exposure will be evaluated in Employee health within one week of exposure, preferably by the next business day. Employees may choose follow-up with their own health care provider.

(2) During follow-up visit, the source patient risk factors and employee immunity will be reviewed.

(a) If source patient test(s) was (were) not ordered, the Employee Health Provider will contact the treating health care provider to again request need to order screening lab tests.

(b) If the source patient was negative for HIV, Hepatitis B and Hepatitis C, and is deemed low risk, no further testing of the employee is needed. Testing may be performed at the employee's request.

(c) If the employee is immune to Hepatitis B, no further Hepatitis B testing is required.

(d) Follow-up test(s) will be ordered according to the follow-up protocol (Attachment B).

(e) Continuation of prescription for anti-retroviral agents will be according to current CDC recommendations, and including co-signature of the Employee Health Physician, the Hospital Epidemiologist or a member of the Infectious Diseases staff.

- 6. REFERENCES:** Update: Provisional Public Health Service Recommendations for Chemoprophylaxis after Occupational Exposure to HIV. MMWR, 45 (No. 22)
VHA Directive 96-024, subject: Compliance with OSHA Standards on Occupational Exposure to Bloodborne Pathogens.
VHA Directive 10-95-105, subject: Employee Health Follow-up for Human Immunodeficiency Virus (HIV) and Hepatitis B Virus (HBV) after an Accidental Occupational Exposure Incident Involving Blood and Other Potentially Infections Material (OPIM)
VHA Directive 10-95-038, subject: Hepatitis B Vaccine.
IL-10-96-018, subject: Undersecretary for Health's Information Letter. Provisional Recommendations for Prophylactic Treatment Following Occupational Exposure to Blood and Body Fluids and HIV Infection. Occupational Safety and Health Administration Occupational Exposure to Bloodborne Pathogens. Federal Register Vol. 56, No. 235
Case-Control Study of HIV Seroconversion in Health-Care Workers After Percutaneous Exposure to HIV-Infected Blood-France, United Kingdom, and United States, MMWR 44 (No. 50)
Prevention, Management & Chamoprophylaxis of Occupational Exposure to HIV. Ippolito G, International Health care Worker Safety Center, University of Virginia
Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV and HIV and Recommendations for Post exposure Prophylaxis. MMWR, Recommendations and Reports; 50(RR11); 1-42
VAMHCS Policy 512-101/MC-024, subject: Employee Health Program

May 2007

VAMHCS POLICY MEMORANDUM 512-101/MC-05

7. RESPONSIBLE OFFICE: The Managed Care Office (101/MC) is responsible for the contents of this memorandum.

8. RESCISSIONS: VAMHCS Policy Memorandum 512-101/MC-05, subject: Management of Occupational Exposure to Bloodborne Pathogens, dated May 2004.

9. RECERTIFICATION: This document is scheduled for recertification on/before the last working day of May 2010.



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ATTACHMENTS: A – Management of Occupational Exposure to Bloodborne Pathogens
B – Employee Health Clinic Employee Needlestick/Exposure Follow-Up
C – Needle Stick Hotline
D – Consent for Human Immunodeficiency Virus (HIV) Antibody Testing
E – Post-exposure Prophylaxis Algorithm
F – VAMHCS Employee Consent Form
G - Hepatitis B Prophylaxis

**MANAGEMENT OF OCCUPATIONAL EXPOSURE TO
BLOODBORNE PATHOGENS**

1. Potentially Infectious Materials:

Blood

Blood-tinged body fluid

Peritoneal fluid

Pleural fluid

Amniotic fluid

Semen

Vaginal secretions

Cerebrospinal fluid

Synovial fluid

Saliva in dental procedures

Any unidentifiable body fluid

Unfixed human tissue

Note: Urine, feces, saliva, sweat are not considered potentially infectious unless blood-tinged.

2. Consider exposed if:

Percutaneous exposure

Mucous membrane exposure (eye, mouth or other mucous membrane)

Non-intact skin exposure to blood (especially at risk if prolonged exposure)

**EMPLOYEE HEALTH CLINIC
EMPLOYEE NEEDLESTICK/EXPOSURE FOLLOW-UP**

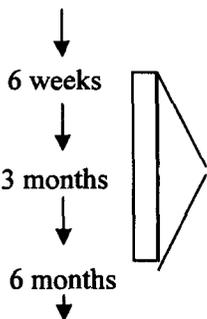
SOURCE PATIENT

Known Hepatitis B (or Hep B S Ag + on testing)
OR
Known Hepatitis C (or Hep C Ab + on testing)
OR
Known HIV (or HIV + on testing)
IV Drug Use
OR
Sexual Risk Factors

Yes

No

- 1.) Make sure employee has had post-exposure baseline evaluation and counseling.
- 2.) Make sure employee was offered appropriate prophylaxis (including Hep B vaccine if not immune.)
- 3.) Give employee written notification of risk, follow-up dates and hand-out about preventing transmission.
- 4.) Remind employee to return for evaluation if any flu-like symptoms develop during the following 6 months.
- 5.) Place incident in ASISTS.
- 6.) Complete VA-required paperwork.
- 7.) Schedule follow-up HIV (with consent) and needlestick panel tests as follows:



end of six months, if all test negative, Employee has completed testing

- 1. Inform employee that further testing is not indicated.
- 2. Remind employee to return for evaluation if any flu-like symptoms during the following year.
- 3. Give employee notification of risk and hand-out.
- 4. Complete VA-required paperwork.
- 5. If employee chooses to be tested.

If at any point markers become positive, treat as an occupational illness; continue testing for other viruses until end of six months.

STUCK

IN THE SAME OLD JOB

?

WELL, THIS WON'T HELP

BUT,

IF YOU HAVE BEEN

STUCK WITH A NEEDLE OR OTHER SHARPS,
OR

HAVE BEEN OTHERWISE

EXPOSED TO BLOOD

PAGE THE NEW NEEDLESICK HOTLINE AT:

410-447-STIK

CONSENT FOR HUMAN IMMUNODEFICIENCY VIRUS (HIV) ANTIBODY TESTING

I have asked or been asked to have my blood tested for antibodies to the Human Immunodeficiency Virus (HIV), the virus which causes Acquired Immunodeficiency Syndrome (AIDS). It has been explained to me that the test is for HIV infection. It is not a test for AIDS. If I do have antibodies to the virus (a POSITIVE test), this means that I have been infected with the virus. If I do not have antibodies (a NEGATIVE test) but am in a group of people who are at high risk for AIDS (people who have had multiple sex partners or who share needles when using drugs), this does not mean that I will not become infected in the future. In fact, I may already be infected but have not yet had time to develop antibodies.

I have been told that the blood tests for antibodies to the virus are not foolproof. In a small number of people, other things such as another virus or disease may wrongly cause a positive test. This is called false positive test. It is also possible to have false negative test. In this case, I do have the antibodies to the virus but the test did not show this. If the first test on my blood is positive, the test will be repeated. If positive again a confirmatory test will be conducted. These tests will all be done on the blood taken after I sign this consent.

I have been told that HIV is spread through the blood from an infected person. It is also spread by having sex with an infected person. I understand that if my test is positive, I can spread the infection to others.

I must not give blood or plasma or donate my organs or sperm if I am positive.

If I have a positive test, I should explain this to all sexual partners. If I am unable to tell my spouse or any other sexual partner whom I have identified, my doctor or counselor may do so but only to protect the health of my partner(s).

If I have a positive test, my case may be reported to the public health agencies. The public health staff may only use or give out that information for the public health purpose for which it was given. Information about my HIV testing cannot be revealed to anyone outside the VA without my written permission, or, a court order, a medical emergency for research, Congressional oversight, audit purposes, or for medical treatment provided to me by the Armed Forces.

I have been told that the results of my test (positive or negative) will be in my medical record. I understand that any VA employee who improperly releases information about HIV testing is subject to a fine. Even though I understand every effort will be made to protect the results of my test, I also understand that disclosure of a positive test result can lead to discrimination in housing, jobs and other areas in some communities.

I have been counseled about the HIV test and have been given a chance to ask questions. I understand what a positive and a negative means. I understand that the test is voluntary and that I will still receive care from the VA if I refuse to have the HIV antibody test done.

Therefore, I give permission for my blood to be tested for HIV antibodies.

Patient or Legal Guardian

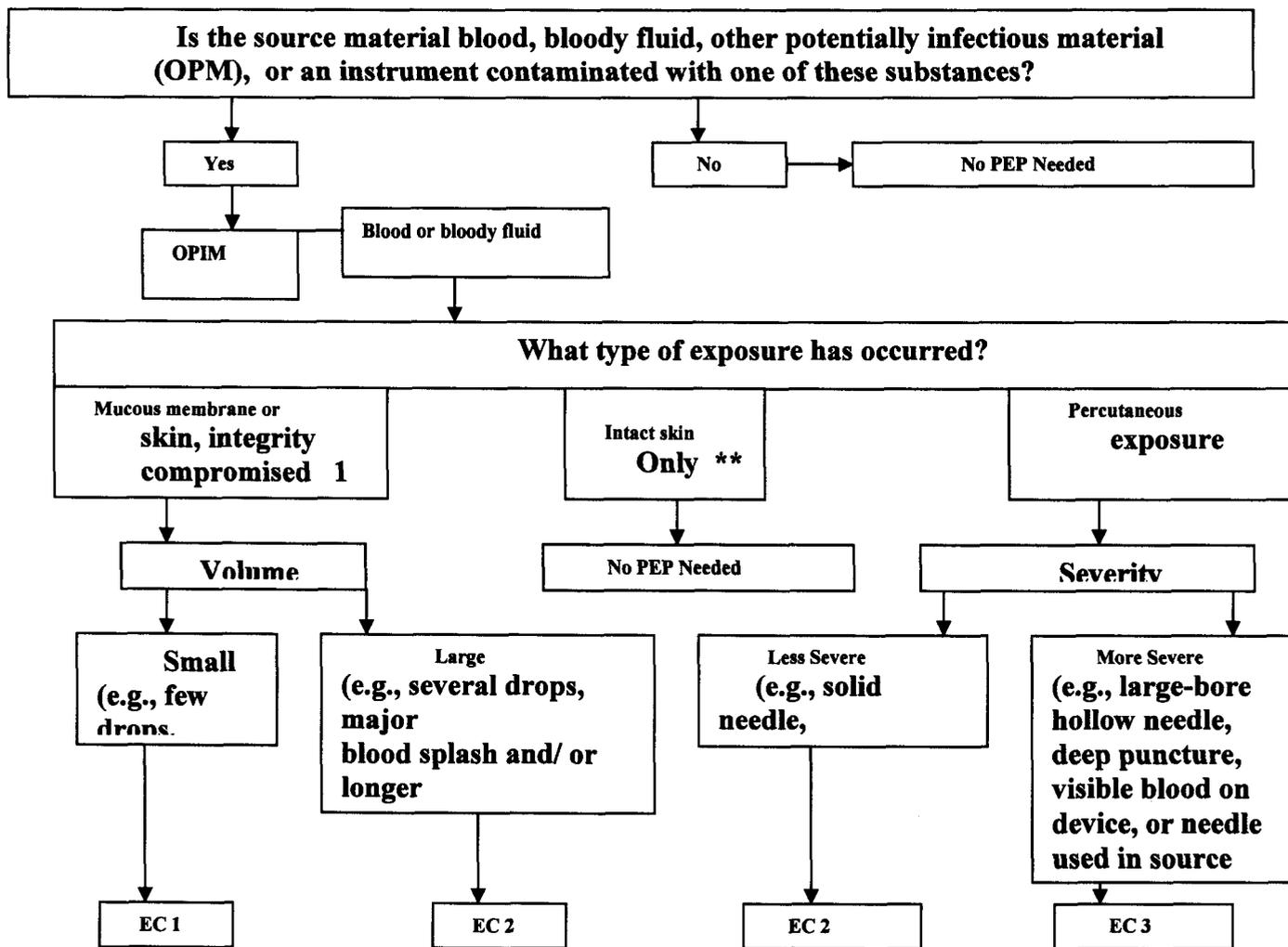
Date

Witness

Date

Post-exposure Prophylaxis Algorithm

STEP 1: Determine the Exposure Code (EC)



* This algorithm is intended to guide initial decisions about PEP and should be used in conjunction with other guidance provided in this report.

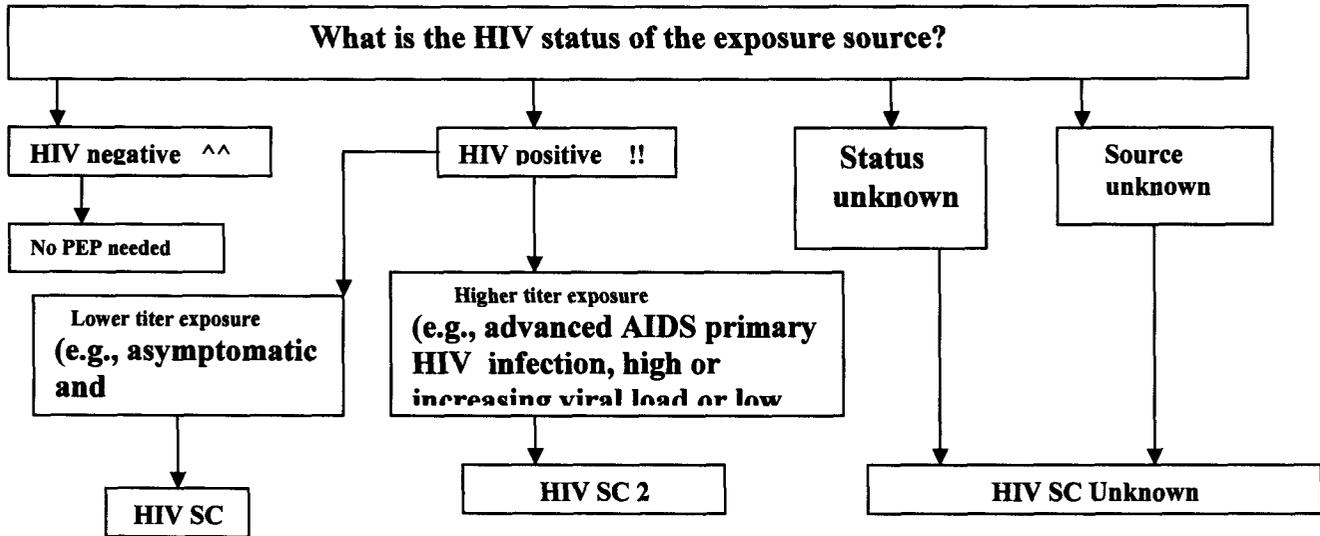
Semen or vaginal secretions; cerebrospinal, synovial, pleural, peritoneal, pericardial, or amniotic fluids; or tissue. Exposures to OPIM must be evaluated on a case-by-case basis. In general, these body substances are considered a low risk for transmission in health-care settings. Any unprotected contact to concentrated HIV in a research laboratory or production facility is considered an occupational exposure that requires clinical evaluation to determine the need for PEP.

1 Skin integrity is considered comprised if there is evidence of chapped skin, dermatitis, abrasion, or open wound.

** Contact with intact skin is not normally considered a risk for HIV transmission. However, if the exposure was to blood, and the circumstances suggests a higher volume exposure (e.g., an extensive area of skin was exposed or there was prolonged contact with blood), the risk for HIV transmission should be considered.

++ The combination of these severity factors (e.g., large-bore hollow needle and deep puncture) contribute to an elevated risk for transmission if the source person is HIV-positive.

STEP 2: Determine the HIV Status Code (HIV SC)



^^ A source is considered negative for HIV infection if there is laboratory documentation of a negative HIV antibody, HIV polymerase chain reaction (PCR), or HIV p24 antigen test result from a specimen collected at or near the time of exposure and there is no clinical evidence of recent retroviral-like illness.

!! A source is considered infected with HIV (HIV positive) if there has been a positive laboratory result for HIV antibody, HIV PCR, or HIV p24 antigen or physician-diagnosed AIDS.

***Examples are used as surrogates to estimate the HIV titer in an exposure source for purposes of considering PEP regimens and do not reflect all clinical situations that may be observed. Although a high HIV titer (HIV SC 2) in an exposure source has been associated with an increased risk for transmission, the possibility of transmission from a source with a low HIV titer also must be considered.

STEP 3: Determine the PEP Recommendation

EC HIV SC PEP recommendation

1 1 PEP may not be warranted. Exposure type does not pose a known risk for HIV transmission. Whether the risk for drug toxicity outweighs the benefit of PEP should be decided by the exposed HCW and treating clinician.

1 2 Consider basic regimen.***Exposure type poses a negligible risk for HIV transmission. A high HIV titer in the source may justify consideration of PEP. Whether the risk for drug toxicity outweighs the benefit of PEP should be decided by the exposed HCW and treating clinician.

2 1 Recommend basic regimen. Most HIV exposures are in this category: no increased risk for HIV transmission has been observed but use of PEP is appropriate.

2 2 Recommend expanded regimen. +++ Exposure type represents an increased HIV transmission risk.

3 1 or 2 Recommend expanded regimen. Exposure type represents an increased HIV transmission risk. Unknown (If the source or, in the case of an unknown source, the setting where the exposure occurred suggests a possible risk for HIV exposure and the EC is 2 or 3, consider PEP basic regimen.

***Basic regimen is four weeks of Tenofovir, 300 mg per day in two or three divided doses, and Lamivudine 300 mg daily.

+++Expanded regimen is the basic regimen plus either Kaletra 3 tabs twice a day (refrigerate), or Efavirenz 600mg every night.

**VAMHCS EMPLOYEE CONSENT FORM
(For Hepatitis B, Hepatitis C, and HIV Testing)**

I have requested testing for the following infectious diseases:

(Place your initials before the test you are requesting)

_____ Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immunodeficiency Syndrome (AIDS)

_____ Hepatitis B Surface Antigen (HbsAg), the virus that causes Hepatitis B

_____ Hepatitis C Antibody present after infection with Hepatitis C

I understand the results of such testing will be filed in my confidential employee health record in the Employee Health Service of _____. I understand that the results of such testing will only be released to other VA employees on a need to know basis or as specifically authorized under applicable Federal law.

I understand I will be notified of the result of testing by the Employee Health Service. If any of the above test results are positive, and I am a direct care provider, I understand the Employee Health Service will notify the VAMHCS Hospital Epidemiologist of the positive result.

VAMHCS Administration may decide what, if any, measures are necessary to limit any risk my infection may pose to patients, employees, or staff. I understand that if the committee limits my activities as a result of my test results, my supervisor will be notified that I have a medical condition that requires modification of my job activities.

(For testing following an occupational exposure to blood or body fluids, complete the next section)

I have been exposed to a patient's body fluids.

Date of exposure: _____

Nature of exposure (e.g. needle stick, cutaneous etc.): _____

The source patient has the right to decline HIV testing.

I understand that if I file any claim for compensation related to my exposure, the test results will be disclosed to those involved in considering my claim. I consent to have my blood drawn under these circumstances.

Date

Employee Signature

Print Name of Person Signing Above

Witness

The HIV consent form must also be signed when HIV testing is requested.

HEPATITIS B PROPHYLAXIS

1. If source patient is Hepatitis B Surface Antigen Positive AND

a. If the employee was vaccinated with positive post-vaccine titer.

b. No treatment is indicated until baseline titer results are back.
Review status on follow-up in Employee Health.

c. If the employee was never vaccinated:

(1) Give one dose of HBV IG

(2) Initiate vaccine series (other arm).

d. If the employee had vaccine but was antibody-negative on post-vaccine titer.

(1) Give one dose of HBIG (second dose in Employee Health in one month initiate re-immunization attempt with vaccine (other arm).

2. Follow-up

a. If employee was vaccinated in past but immune status was not checked, treat based on results of baseline Hepatitis B Surface Antibody. If negative:

b. If negative, give one dose of HBV IG. Give booster dose of vaccine and retest titer one month.