

## **Stony Brook School of Medicine Policy on Blood Borne Pathogen Exposure:**

**The following are instructions for what you should do if you experience a needlestick or sharps exposure at Stony Brook Hospital, Winthrop University Hospital, Nassau University Medical Center, the Northport Veterans Administration Medical Center or any other clinical rotation site while you are a medical student at Stony Brook University Medical School.**

The CDC Department of Health Human Services publishes a brochure that includes detailed information called, "Exposure to Blood: What Health-Care Workers need to Know." Please familiarize yourself with this information and the risks to you as a health care provider. (<http://www.cdc.gov/ncidod/dhqp/bp.html>). It should be recognized that while hepatitis B virus (HBV) transmission has occurred through a wide variety of fluids and modes of exposure, human immunodeficiency virus (HIV) transmission from patient to health care worker (HCW) has only been known to occur (up to this time) from exposure to blood or frankly bloody fluids. The frequency of transmission of HBV is estimated to be as high as 60% when the blood is from a carrier with both hepatitis B surface antigen (HBs AG) and hepatitis B e antigen positive (HBe AG), and as high as 30% for a surface antigen positive source. The risk of post-needle stick infection with hepatitis C is 3% compared to a maximum of 30% for HBV. The risk of HIV is approximately 0.3% for HIV when such injury involves blood from a known HIV infected individual.

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**If you are exposed to the blood of a patient, it is recommended to do the following:**

- 1. Immediately following an exposure to blood: "Wash needlestick or sharps induced injuries and cuts with soap and water. Flush splashes to the nose, mouth, or skin with water. Irrigate eyes with clean water, saline, or sterile irrigants".\***
- 2. Immediately inform your supervising resident or attending physician and complete an incident report.** Prompt reporting is essential because, in some cases, post exposure treatment may be recommended and it should be started as soon as possible. The student who sustains occupational exposure, should access post exposure services within hours as opposed to days, after the exposure.
- 3. Go for Post-exposure Services: If your exposure occurs at:**

**a. Stony Brook University Hospital:**

Monday-Friday (8 AM- 4PM) - go immediately to Employee Health Services in Stony Brook University Hospital located on the Level 5 Room 255 tel # 444-7767 (Call 4-7767 in house)

All other times - go immediately to the Emergency Department at Stony Brook University Hospital

**b. Winthrop University Hospital, Northport VA Hospital, or Nassau University Medical Center:** go to the Emergency Department

The clinician in Occupational health or the Emergency Department evaluates the type and severity of exposure and counsels the student on the risk of transmission to HIV, HBV, and HCV. Post exposure prophylaxis (PEP) to HIV and HBV will be recommended in accordance with CDC guidelines (see below). The student is then referred to Occupational Health for follow-up counseling and testing. If you are treated in the Emergency Department, you may only be given one or two day supply of post exposure medication, and therefore you must follow up to obtain the rest of the medications at Occupational Medicine in Stony Brook. After you have reported the blood borne exposure and received initial management from the Emergency Department or Occupational Health, you should inform the Office of Medical Education.

**4. Occupational Medicine will contact the source patient's physician, nurse practitioner, midwife, or physician's assistant to determine whether the source's HIV, HBV and HCV status are known.** . The law requires obtaining informed consent before testing a person for HIV. In addition, the person being tested must receive pre and post-test counseling. If the patient lacks capacity to consent, counseling must be provided to the health care agent, guardian, or other person lawfully authorized to make health care decisions for the patient. **No student or resident may order an HIV test.**

**CDC recommendations for [Post exposure Prophylaxis \(PEP\)](#) to blood borne Pathogens**

**A. Recommended post-exposure management for exposure to HIV** – Post exposure treatment is not recommended for all occupational exposures to HIV because most exposures do not lead to HIV infection and because the drugs used to prevent infection may have serious side effects. You should discuss the risks and side effects with a health care provider before starting post exposure treatment of HIV.

**TABLE 4. Recommended HIV postexposure prophylaxis for percutaneous injuries**

Exposure type	Infection status of source				
	HIV-Positive Class 1*	HIV-Positive Class 2*	Source of unknown HIV status <sup>†</sup>	Unknown source <sup>‡</sup>	HIV-Negative
Less severe <sup>§</sup>	Recommend basic 2-drug PEP	Recommend expanded 3-drug PEP	Generally, no PEP warranted; however, consider basic 2-drug PEP** for source with HIV risk factors <sup>¶</sup>	Generally, no PEP warranted; however, consider basic 2-drug PEP** in settings where exposure to HIV-infected persons is likely	No PEP warranted
More severe <sup>§§</sup>	Recommend expanded 3-drug PEP	Recommend expanded 3-drug PEP	Generally, no PEP warranted; however, consider basic 2-drug PEP** for source with HIV risk factors <sup>¶</sup>	Generally, no PEP warranted; however, consider basic 2-drug PEP** in settings where exposure to HIV-infected persons is likely	No PEP warranted

\* HIV-Positive, Class 1 — asymptomatic HIV infection or known low viral load (e.g., <1,500 RNA copies/mL). HIV-Positive, Class 2 — symptomatic HIV infection, AIDS, acute seroconversion, or known high viral load. If drug resistance is a concern, obtain expert consultation. Initiation of postexposure prophylaxis (PEP) should not be delayed pending expert consultation, and, because expert consultation alone cannot substitute for face-to-face counseling, resources should be available to provide immediate evaluation and follow-up care for all exposures.

<sup>†</sup> Source of unknown HIV status (e.g., deceased source person with no samples available for HIV testing).

<sup>‡</sup> Unknown source (e.g., a needle from a sharps disposal container).

<sup>§</sup> Less severe (e.g., solid needle and superficial injury).

\*\* The designation “consider PEP” indicates that PEP is optional and should be based on an individualized decision between the exposed person and the treating clinician.

<sup>¶</sup> If PEP is offered and taken and the source is later determined to be HIV-negative, PEP should be discontinued.

<sup>§§</sup> More severe (e.g., large-bore hollow needle, deep puncture, visible blood on device, or needle used in patient’s artery or vein).

**TABLE 5. Recommended HIV postexposure prophylaxis for mucous membrane exposures and nonintact skin\* exposures**

Exposure type	Infection status of source				
	HIV-Positive Class 1 <sup>†</sup>	HIV-Positive Class 2 <sup>†</sup>	Source of unknown HIV status <sup>‡</sup>	Unknown source <sup>§</sup>	HIV-Negative
Small volume**	Consider basic 2-drug PEP <sup>¶</sup>	Recommend basic 2-drug PEP	Generally, no PEP warranted; however, consider basic 2-drug PEP <sup>¶</sup> for source with HIV risk factors <sup>¶¶</sup>	Generally, no PEP warranted; however, consider basic 2-drug PEP <sup>¶</sup> in settings where exposure to HIV-infected persons is likely	No PEP warranted
Large volume <sup>¶¶</sup>	Recommend basic 2-drug PEP	Recommend expanded 3-drug PEP	Generally, no PEP warranted; however, consider basic 2-drug PEP <sup>¶</sup> for source with HIV risk factors <sup>¶¶</sup>	Generally, no PEP warranted; however, consider basic 2-drug PEP <sup>¶</sup> in settings where exposure to HIV-infected persons is likely	No PEP warranted

\* For skin exposures, follow-up is indicated only if there is evidence of compromised skin integrity (e.g., dermatitis, abrasion, or open wound).

<sup>†</sup> HIV-Positive, Class 1 — asymptomatic HIV infection or known low viral load (e.g., <1,500 RNA copies/mL). HIV-Positive, Class 2 — symptomatic HIV infection, AIDS, acute seroconversion, or known high viral load. If drug resistance is a concern, obtain expert consultation. Initiation of postexposure prophylaxis (PEP) should not be delayed pending expert consultation, and, because expert consultation alone cannot substitute for face-to-face counseling, resources should be available to provide immediate evaluation and follow-up care for all exposures.

<sup>‡</sup> Source of unknown HIV status (e.g., deceased source person with no samples available for HIV testing).

<sup>§</sup> Unknown source (e.g., splash from inappropriately disposed blood).

\*\* Small volume (i.e., a few drops).

<sup>¶</sup> The designation, "consider PEP," indicates that PEP is optional and should be based on an individualized decision between the exposed person and the treating clinician.

<sup>¶¶</sup> If PEP is offered and taken and the source is later determined to be HIV-negative, PEP should be discontinued.

<sup>¶¶¶</sup> Large volume (i.e., major blood splash).

## **B. Recommended post-exposure management for exposure to hepatitis B virus**

If you have not been vaccinated, then hepatitis B vaccination is recommended for any exposure regardless of the source person's hepatitis B status. HBIG and/or hepatitis B vaccine may be recommended depending on your immunity to hepatitis B and the source person's infection status.

## **C. Recommended post-exposure management for exposure to hepatitis C virus**

Currently there is no recommended post exposure treatment that will prevent HCV infection. Stony Brook University Hospital has established policies and procedures for testing health care workers and students for hepatitis C virus (HCV) after percutaneous or mucosal exposures to blood. All personnel should be familiar with these policies and procedures. The following are recommendations for follow-up occupational HCV exposures:

For the person exposed to an HCV-positive source:

Occupational Medicine will perform baseline testing for anti-HCV and ALT activity; and perform follow-up testing (e.g., at 4--6 months) for anti-HCV and ALT activity (if earlier diagnosis of HCV infection is desired, testing for HCV RNA may be performed at 4--6 weeks). They will confirm all anti-HCV results reported positive by enzyme immunoassay using supplemental anti-HCV testing (e.g., recombinant immunoblot assay [RIBA], IG and

antiviral agents are not recommended for PEP after exposure to HCV-positive blood. **Be aware that specific guidelines for administration of therapy during the acute phase of HCV infection is controversial.** However, limited data indicate that antiviral therapy might be beneficial when started early in the course of HCV infection. When HCV infection is identified early, the person should be referred for medical management to a specialist knowledgeable in this area. **Source: MMWR, June 29, 2001/ 50 (RR11); 1-42.**

### ***5. Precautions to be taken during the follow-up period***

#### **HIV**

During the follow-up period, especially the first 6-12 weeks when most infected persons are expected to show signs of infection, you should follow recommendations for preventing transmission of HIV. These include not donating blood, semen, or organs and not having sexual intercourse, if you choose to have sexual intercourse, using a condom consistently and correctly may reduce the risk of HIV transmission. In addition, women should consider not breast-feeding infants during the follow-up period to prevent exposing their infants to HIV in breast milk.

#### **HBV**

If you are exposed to HBV and receive post exposure treatment, it is unlikely that you will become infected and pass the infection on to others. No precautions are recommended.

#### **HCV**

Because the risk of becoming infected and passing the infection on to others after an exposure to HCV is low, no precautions are recommended.

Information Network: 1-800-342-AIDS  
P.O. Box 6003 Spanish: 1-800-344-SIDA  
Rockville, Maryland 20849-6003  
Deaf: 1-800-243-7889 or 1-800-458-5231

Internet Resources:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>

Read This from MCS 2 Class *NYSDOH AI manual - "HIV Prophylaxis Following Occupational Exposure"*: [http://hivguidelines.org/public\\_html/oe/oe.pdf](http://hivguidelines.org/public_html/oe/oe.pdf)

CDC National Center for HIV, STD, and TB Prevention (NCHSTP)  
<http://www.cdc.gov/nchstp/od/nchstp.html>

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