



## **POLICY ON BLOOD AND BODY FLUID EXPOSURE (NEEDLE STICK)**

Dated: January 1, 2018

Supersedes: *Blood and Body Fluid Exposure (Needle stick)* dated July 1, 2015

### **I. POLICY**

It is the policy of New York Medical College (NYMC) and Touro College of Dental Medicine at NYMC (TCDM) to have standardized procedures for handling blood and body fluid exposures which includes needlestick injuries.

### **II. PURPOSE**

To define the procedures for blood and body fluid exposures for NYMC and TCDM students.

### **III. SCOPE**

All NYMC students in the School of Medicine, all TCDM students, all students in the Graduate School of Basic Medical Sciences and all physical therapy and speech and language pathology students in the School of Health Sciences and Practice.

### **IV. DEFINITIONS:**

- Blood and body fluid exposure: This is an exposure of human blood or a body fluid/tissue that comes in contact with non-intact skin or mucous membranes. Such exposures pose a potential risk of transmission of blood borne pathogens.
  - Needle stick injuries are included in the term blood and body fluid exposure.
- Blood borne pathogens: These primarily are human immunodeficiency virus (HIV-1), hepatitis B virus (HBV) and hepatitis C virus (HCV). Depending upon the clinical situation, blood borne pathogens may not be limited to these infectious agents.
- Risk of transmission: The likelihood of acquiring an infection. For blood borne pathogens, the risk of transmission depends upon the nature of the exposure, the infectiousness of the source, and in the case of HBV, the immune status of the exposed individual.
- The NYMC Health Service: This is the health service for all of New York Medical College and Touro College of Dental Medicine and performs the follow-up for student blood and body fluid exposures.

## V. PROCEDURE(S)

### a. Initial Procedures when blood or body fluid exposure occurs:

- i. Care of the Wound or Mucous Membrane: Immediately wash the exposed area thoroughly with soap and water; a germicidal soap may be used. For mucous membrane exposures, irrigate with copious amounts of water and flush thoroughly. Five minutes of irrigation is a suggested time period.
- ii. Notify your Supervisor: The exposed person will need to leave their current duties and report immediately to the Employee Health Service or Emergency Room for treatment. Post-exposure prophylaxis for HIV-1 is to be started within 2 hours of the injury, thus one should not delay in the procedures below.
- iii. Report to Employee Health Service or Emergency Room:
  - 1) In hospitals, or outpatient sites within a hospital complex: Blood and body fluid exposures that occur off-hours (nights/weekends) are handled in the Emergency Room. During regular working hours blood and body fluid exposures may be handled by the Employee Health Service or by the Emergency Room. Check with your supervisor or clerkship director for the appropriate site.
  - 2) During student outpatient rotations geographically distant from a hospital: As blood tests and a medical evaluation will be required, the exposed person is to go to the closest Emergency room. If questions arise, during working hours, call NYMC Health Services.
- iv. Billing: Students are to present health insurance information for billing purposes at the time of medical evaluation. Students cannot be considered as Workers' Compensation.
- v. After the initial medical evaluation: Notify NYMC Health Services: It is essential that the exposed person report the injury to NYMC Health Services; if the injury occurred after hours, this can be reported on the next working day. This is required to complete the evaluation and provide needed follow-up for blood tests, answer questions, seek consultation if needed, and in the case of HIV -1 prophylaxis, to prescribe the complete course of medications.
- vi. Obtain a copy of your off-campus medical evaluation and any tests performed to bring to NYMC Health Services.

### b. Medical Evaluation at the time of exposure:

Blood and body fluid exposures require a medical evaluation. Expect the following:

- i. You will be asked to recall the specific events of the injury and to provide a clear description of how the exposure occurred, what type of needle or device was involved, the body fluids involved, and whether or not the injury involved visible blood from the source patient or the exposed person. For needle sticks, please note, if the needle was a hollow bore needle and if the needle was directly placed in a vein or artery.
- ii. Information regarding the source patient: You will need to provide the person evaluating you with a method to contact the primary care provider for the source patient. The primary care provider is to assist with determining the source patient's status of infection with HIV-1, HBV and HCV.
- iii. Exposed person: Baseline blood tests: Tests for HIV-1 antibody, HCV antibody, HBV surface antibody and HBV surface antigen are performed at the time of exposure. A complete blood count and differential, complete metabolic profile, and a pregnancy test are obtained if HIV-1 post-exposure prophylaxis may be started.
- iv. Tetanus booster: If the exposed person has not received a tetanus booster within the past 10 years, a booster may be administered at the time of evaluation.
- v. Evaluation of source patient: The primary care provider for the source patient is to assist with determining the source patient status for HIV-1, HBV and HCV. Clinical site directors may be needed to assist with ensuring the information is available for Health Services. Below are procedures depending upon the status of the source patient:
  - 1) HIV-1 Unknown or Negative Source: An HIV-1 test of the source patient is to be performed in accordance with hospital procedures for informing the patient of the need for the test/ consent. A rapid HIV-1 test for the source patient is preferred to allow this information to be used for the decision of post-exposure prophylaxis.
  - 2) HIV-1 Positive Source: Information regarding the potential infectivity of the source patient, including CD4 cell count, viral load and current antiretroviral medications is to be provided if possible.
  - 3) HBV status and HCV status of Source: are determined through the tests, HBV core antibody, HBV surface antibody and HBV surface antigen and HCV antibody obtained for the source patient.

- 4) Other transmissible agents: The primary care provider for the source patient may indicate that the source patient was infected with another agent that is potentially transmissible by blood or body fluid exposure. This information is communicated to the clinician evaluating the exposed person.

**c. Medical Determination of risk of exposure and need for post-exposure prophylaxis:**

- i. Based upon the information known regarding the source patient, the clinician evaluating the student will discuss the risks of exposure and make a recommendation for post-exposure prophylaxis.
- ii. Infectious Diseases telephone consultation is advised in the case of a blood or body fluid exposure involving an HIV-1 infected patient. Procedures for Infectious Diseases consultation are followed as per the procedures at the clinical site in which the exposure occurred.
- iii. Procedures for HIV-1 Post-exposure prophylaxis: If HIV-1 post-exposure prophylaxis is advised, a 48-72 hour supply of medications is provided through the Emergency Room or Employee Health Service evaluating the individual. Students sustaining a blood or body fluid exposure at a private office must bring a prescription to a local pharmacy.
  - a. Post-exposure prophylaxis should not be interrupted. All doses are to be taken until further assessment. The follow-up assessment may change the duration of prophylaxis depending upon further information regarding the source patient or tolerability of prophylaxis.
  - b. The possible side effects of medications and the need for birth control during chemoprophylaxis are discussed with the exposed person.
  - c. In the event HIV-1 post-exposure prophylaxis is recommended and the exposed person declines post-exposure prophylaxis, the exposed person is to sign a declination for treatment.
- iv. Exposures involving a source patient that is infectious for HBV: The need for prophylaxis depends upon the infectivity of the source patient and the immune status of the exposed person. Exposed persons who are seronegative for HBV or who have declined HBV vaccination may require receipt of HBV immune globulin in the case of a high risk injury.
- v. Exposures involving a source patient that is infectious for HCV: The exposed person will require periodic blood tests to determine if transmission has occurred. There is no post exposure prophylaxis currently recommended.
- vi. After the initial evaluation: Notify NYMC Health Services: It is essential that the injury be reported to NYMC Health Services to complete the reporting of the incident, provide needed follow-up including blood tests, consultation (if needed) and in the case of HIV-1 prophylaxis, to prescribe the complete course of medications. Students are to obtain a copy of the off-campus evaluation and any tests performed to bring to Health Services.

## **VI. Affiliated Hospital / Clinical Site Responsibilities**

Inform students: Students on rotation at a clinical site are to be informed of where to go to in the event of a blood or body fluid exposure. The medical evaluation above indicates that HIV post exposure prophylaxis is to be started within 2 hours of the injury. Thus, students need to know where to go in the event of an exposure.

- a. Assist with communication of source patient status if needed: Health Services requires documentation of the source patient's blood test results to assure appropriate follow-up and medical management of the student. The affiliated hospital/provider must obtain appropriate consent for release of patient information to NYMC Health Services.
- b. Billing: The student's health insurance is billed for the medical evaluation and for blood tests. This is not a Workman's Compensation of occupational injury; students are not employees.
- c. Paperwork to be sent to Health Services: The exposed person will need copies of medical evaluation plus copies of any tests performed.

## **VII. Procedures by Health Services:**

- a. Health Services meets with the exposed person by telephone or in person (depending upon the nature of the injury) and reviews the data from the medical evaluation performed at the site of the exposure. This occurs on the day of the exposure or the next working day depending upon the time of the exposure.
- b. A NYMC Health Services Blood and Body Fluid Post Exposure Data Form is completed at this time (see Appendix A).
- c. In the event of administration of HIV-1 prophylaxis the exposed person must sign consent for treatment; if treatment was recommended and the student declined, a signed declination is required.
- d. Follow-up testing for any blood borne pathogen may be required. This is delineated in the NYMC Health Services Follow-up Labs for Exposure to Blood Borne Pathogens (see Appendix B).
- e. Co-pays for medical evaluation or medications are reimbursed through NYMC Health Services. Students must present appropriate information to Health Services for re-imburement.

## **VIII. EFFECTIVE DATE**

This policy is effective immediately.

## **IX. REFERENCES**

- Centers for Disease Control and Prevention: Updated US Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Post-exposure Prophylaxis.

- Centers for Disease Control and Prevention: Hepatitis C frequently asked questions (FAQs) for health care personnel.
- LCME Standard 12.8: Student Exposure Policies/Procedures

**X. POLICY MANAGEMENT**

- Responsible Executives: Dean of the School of Medicine, Dean of the Touro College of Dental Medicine
- Responsible Officer: Senior Associate Dean for NYMC Student Affairs, TCDM Director of Student Affairs
- Responsible Office: Office of NYMC-SOM Student Affairs, Office of TCDM Student Affairs

## Appendix A

### BLOOD AND BODY FLUID POST EXPOSURE POST EXPOSURE DATA FORM

Name: \_\_\_\_\_ Today's date: \_\_\_\_\_

Class year/Department: \_\_\_\_\_

Address: \_\_\_\_\_ Telephone: \_\_\_\_\_

Where Did Exposure Occur? \_\_\_\_\_ Date & Time of Occurrence: \_\_\_\_\_

Describe the circumstances under which the exposure occurred and steps taken:

---

#### **STUDENT / EMPLOYEE:**

1. Which body fluid was involved?

- blood or blood products     urine     vomit  
 other, please describe: \_\_\_\_\_

2. Route of exposure:

needlestick     intact skin     non intact skin     eye(s)     mouth     nose     human bite

other, please describe: \_\_\_\_\_

3. Was protective equipment worn at the time of exposure?     yes     no

If yes, please specify: \_\_\_\_\_

4. What device or item caused the injury? \_\_\_\_\_

5. How long was the blood or body fluid in contact with the skin or mucus membrane?

less than 5 minutes     5-14 minutes     15 minutes or more

6. Estimate the quantity of blood or body fluid that came in contact with the skin or mucus membrane: small amt (< 5cc); moderate (quarter cup 50 cc); large (> 50 cc)

\_\_\_\_\_

7. For needle stick: Was needle hollow bore or closed bore: \_\_\_\_\_

**SOURCE PATIENT:**

1. Is the source patient known? ( )Yes ( )No
  
2. Is Hepatitis B Surface Ag status known on the patient? ( )Yes ( )No  
If yes, what is status? \_\_\_\_\_
  
3. Is Hepatitis C Ab status known on the patient? ( )Yes ( )No  
If yes, what is status? \_\_\_\_\_
  
4. Is HIV Ab status known on the patient? ( )Yes ( )No  
If yes, what is status? \_\_\_\_\_

**STUDENT / EMPLOYEE EVALUATION TO DATE:**

1. Hepatitis screen done on student/employee? ( )Yes ( )No If yes, date \_\_\_\_\_  
Results: Hepatitis B Ag:\_\_\_\_\_ Hepatitis B Ab:\_\_\_\_\_ Hepatitis C Ab:\_\_\_\_\_
  
2. Liver function tests done on student/employee? ( )Yes ( )No If yes, date: \_\_\_\_\_  
Results: \_\_\_\_\_
  
3. HIV test done on student/employee? ( )Yes ( )No If yes, date \_\_\_\_\_  
Results: \_\_\_\_\_
  
4. Hepatitis B vaccine info:  
Student/Employee has Hepatitis B vaccine series? ( )Yes ( )No  
If no, declination form signed? ( )Yes ( )No  
If yes, 1st dose date:\_\_\_\_\_ 2nd dose date:\_\_\_\_\_ 3rd dose date: \_\_\_\_\_  
Hep B Surface Antibody Titer: \_\_\_\_\_  
Booster date(s): \_\_\_\_\_
  
5. Prophylactic HIV medications advised? ( )Yes ( )No
  
6. Was Infectious Diseases consulted?, ( )Yes ( )No  
if yes name of physician if known: \_\_\_\_\_
  
7. If medication advised, did student/employee consent? ( )Yes ( )No  
Consent/declination signed by student/employee date: \_\_\_\_\_  
Date and time HIV post exposure prophylaxis started: \_\_\_\_\_
  
8. HIV prophylactic medication given and dosing regimen:

---

9. Evaluation of reported illness: (please see student/employee chart)

**CONSENT FOR POST EXPOSURE PROPHYLACTIC HIV MEDICATION**  
**(IF MEDICATION IS INDICATED)**

I understand that due to the nature of exposure to blood or other potentially infectious materials I may be at risk of acquiring the HIV infection and consent to taking HIV prophylactic medication as advised. I have been informed of the risks and benefits of taking the medication and have had the opportunity to have my questions answered.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

WITNESS: \_\_\_\_\_

**DECLINATION FOR POST EXPOSURE PROPHYLACTIC HIV MEDICATION**  
**(IF MEDICATION IS INDICATED)**

I understand that due to the nature of exposure to blood or other potentially infectious materials I may be at risk of acquiring the HIV infection. I have been given the opportunity to receive prophylactic HIV medication however, I decline to take the medication. I understand that by declining this medication I may be at an increased risk of acquiring HIV infection.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

WITNESS: \_\_\_\_\_

## Appendix B

### FOLLOW-UP LABS FOR EXPOSURE TO BLOOD BORNE PATHOGENS

Name: \_\_\_\_\_ Baseline Date: \_\_\_\_\_

**Note:** If source patient testing is negative, no further follow up of exposed person is necessary.

If source patient anti-HCV is positive, retest source for HCV-RNA if possible.

If source patient HCV Ab status is unavailable test student/employee for Anti-HCV as per table below. .

If source patient Anti-HCV positive and HCV-RNA is negative, manage student/employee as though source patient is HCV positive.

**Baseline Labs:** HIV \_\_\_\_\_ LFT's \_\_\_\_\_ Anti-HCV \_\_\_\_\_

HCV RNA \_\_\_\_\_ **(Only if student/employee is Anti-HCV positive.)**

**(Only if Hep B immune status is unknown):** HepBsAg \_\_\_\_\_ HepBsAb \_\_\_\_\_

Check status of Tetanus Diphtheria booster and Hepatitis B booster. Administer vaccines as needed.

**If post exposure prophylaxis is prescribed:**

Baseline CBC \_\_\_\_\_ LFT \_\_\_\_\_ BUN/CR \_\_\_\_\_ Pregnancy test: \_\_\_\_\_

Post Exposure Labs:

Time Post Exposure	If HIV Prophylaxis Given	No HIV Prophylaxis	Source HCV positive or unknown
2 weeks	CBC, LFTs, Bun/Crn		HCV -RNA
4 weeks (1 mo)	CBC, LFTS, Bun/Crn HIV Ab*,	HIV Ab*	HCV- RNA
8 weeks (2 mo)			HCV-RNA
16 weeks (4 mo)	HIV Ab*	HIV Ab*	HCV- RNA
26 weeks (6 mo)			HCV-RNA and HCV Ab
12 (mo)	If source co-infected with HIV and HCV: Obtain HIV Ab & HCV Ab		

\* HIV Ab test is 4<sup>th</sup> generation test that also tests for Ag.