

BLOOD BORNE PATHOGEN EXPOSURE CHECKLIST

For Blood and Body Fluid Exposures on MUSC Campus

- Immediate First Aid of Injury
- Report Exposure to Supervisor
- Report Exposure to Student Health Services (792 – 3664)
- Ensure that **Source Patient's** blood makes it to lab < 1 hour (so HIV results can be determined < 2 hours)
- Documentation of Exposure
 - Complete the MUSC Blood Borne Pathogen Assessment Form
 - Complete the online MUSC ACORD Form
- Follow Up of Exposure
 - Student Health will contact you with the results of the source patient's Rapid HIV results the same day.
 - Student Health will contact you with the remainder of the source patient's baseline labs (Hepatitis B surface Ag and Hepatitis C Antibody) 1- 2 days later.
 - For exposures to patients with (+) serology for blood borne pathogens, Student Health can initiate any necessary post-exposure antiviral prophylaxis and/or perform any necessary follow up lab testing per MUSC protocol.

See following pages for details on the steps to follow

MUSC STUDENT BLOOD/BODY FLUID EXPOSURE PROTOCOL

Exposures to blood, visibly bloody body fluids, tissue, or *potentially infectious fluids (CSF, Synovial, Pericardial, Peritoneal, Pleural, Amniotic, Semen, Vaginal Secretions):

1. TREATMENT OF EXPOSURE – IMMEDIATE:

- Percutaneous Injuries (punctures, lacerations) – Wash with Soap and Water for 5 minutes.
- Non-intact Skin (open abrasions, cuts). Wash with Soap and Water for 5 minutes. Intact skin is an effective barrier and contact with blood does not need to be reported unless exposure occurred in a research lab setting with concentrated virus.
- Mucous membranes (splashes to eyes, mouth, etc.): Flush extensively with water X 15 minutes.

***AVOID** chemical cleansers that irritate the skin (Alcohol, hydrogen peroxide, Betadine or other chemical cleansers). Avoid "milking" or squeezing out needlestick injuries or wounds. Squeezing the wound merely increases blood flow to the exposure site and potentially increasing the risk of systemic exposure if viral pathogens are present in the source fluid.*

2. REPORT THE EXPOSURE ASAP TO YOUR SUPERVISOR

- **Week Day Exposures:** Monday – Friday, 8:00 AM – 4:30 PM – Call Student Health (792-3664). A Student Health provider will review the nature of the exposure and will assist in the appropriate management of the exposure.
- **Afterhours exposures,** weekends, holidays: Call the MUSC operator (792-2123) and have the Hospital Supervisor paged to your extension. If a Hospital Supervisor is not available, have the operator page Dr. Blumenthal to your extension.
- **Exposures when the Source is Known HIV (+)** – have the hospital operator (792-2123) page Dr. Blumenthal to your extension ASAP.

3. LAB TESTING ON SOURCE: STAT labs on the Source Patient immediately (within an hour of exposure):

- Complete **Source Patient Lab Request** Form for protocol labs – lab request form can be downloaded and printed from this site: http://academicdepartments.musc.edu/esl/studenthealth/student_resources/pathogen.html If no printer is available at your site, notify Student Health of your FAX number and we will FAX the forms to your location.
- Draw (1) **Gold Top Serum Separator Tube** (5 mL minimum volume).
- Label the blood specimen tubes with: Source Patient Name, DOB, and MRN.
- Place labeled specimen and lab request in a Biohazard Bag and immediately transport to MUSC Lab located on the 3rd floor of the MUSC Extension Building (former MUSC Children’s Hospital), SPECIMEN RECEIVING (792-0707) Room # 319 or TUBE to #99.

4. DOCUMENTATION OF EXPOSURE after steps 1-3 completed

- Complete the MUSC Blood Borne Pathogen Assessment Form
- Complete the online MUSC ACORD form: <https://www.carc.musc.edu/acord/>
 - Click on the link: “Online ACORD Form”
 - Use your MUSC ID and password.
 - For “Employer” there is a drop down menu - > Click “MUSC Student”
 - Complete the ACORD Form

5. FOLLOW UP

- Student Health will notify the student with the results on the Source Patient. Rapid HIV results on the Source Patient are generally available within one hour of the specimen being received by the lab. Hepatitis B surface Antigen and Hepatitis C Antibody results are usually available by the next working day.
- Follow up at Student Health for any needed treatment or follow up labs per MUSC protocol for exposures to source patients with + serology.

* Unless visibly bloody, these body fluids (feces, nasal secretions, saliva, sputum, sweat, tears, urine, vomitus) are not considered infectious for blood borne pathogens.

Follow up on source lab results:

- **Source Patient With Negative Serology:** When source patient's tests are negative for blood borne pathogens (HIV, Hepatitis B, Hepatitis C), then immediate baseline lab testing on the student is not necessary in most cases. If the student wishes to document their baseline serologic status (HIV, HCV) after an exposure, these labs can be drawn at Student Health Services within 2 days of the exposure. A negative test (HIV or HCV) at the time of the exposure will only demonstrate that the exposed student was not previously infected. It will not determine whether or not viral transmission occurred from the exposure. It is mandatory for all MUSC students to have received the hepatitis B vaccine series prior to clinical coursework and have a post-vaccine Hepatitis B Surface Antibody titer (HBsAb) to determine if they developed the desired immunity from the vaccine series. If this HBsAb is positive/immune, then this test does not need to be repeated in the event of a subsequent exposure (and doing so may incur unnecessary expense to the student and/or institution). MUSC students can view their immunizations and antibody titers @ <https://lifenet.musc.edu> using their MUSC Net ID and password.

Exposure to HIV (+) Source Patient: The risk of HIV transmission from a percutaneous exposure (needle stick, puncture wound, etc.) is estimated to be 3 in 1,000; transmission risk of a blood splash to the mucus membranes (eye, nose, mouth) is lower (~ 1 in 1,000). Early studies in the 1990's showed reduced maternal-infant transmission of HIV from 25% to 8% with a single antiviral agent (ZDV). Combinations of multiple newer antiviral agents have reduced perinatal HIV transmission to < 2%, and it is inferred that similar efficacy can be achieved with immediate initiation of post-exposure prophylaxis. When indicated, anti-viral medication should ideally be started on the exposed student within 2 hours of the exposure, and continued for 28 days.

Exposure to Source with active Hepatitis C Infection – When the source patient is infected with hepatitis C, then the risk of Hepatitis C transmission from a percutaneous injury is estimated to be close to 0.2%, though may be higher from a hollow-bore needle. There is 0 % chance of hepatitis C transmission from a mucocutaneous splash. Post-exposure prophylaxis is not currently recommended for persons sustaining a BBP exposure from a source infected with hepatitis C. The exposed student should have a baseline hepatitis C antibody and ALT drawn within a few days of the exposure (which can be drawn at Student Health for students in Charleston). Protocol labs will be monitored at regular intervals over the following 4-6 months to detect whether or not hepatitis C transmission occurred. If viral transmission does occur during follow up monitoring, there are anti-viral medications that can be initiated that are highly effective at eradicating the infection.

- **Exposure to Source with active Hepatitis B Infection (HBsAg +) –** for students who have completed the hepatitis B vaccine series and have an immune hepatitis B surface antibody on file, then no further testing or treatment is necessary. Students who are potentially susceptible to hepatitis B infection should have their blood tested for hepatitis B surface antibody. This includes those who: (1) completed the primary Hepatitis B vaccine series but did not check a post-vaccine titer for immunity. (2) Never received the primary hepatitis B vaccine series or have not completed the series. (3) Students who received two hepatitis B vaccine series and did not develop an immune serologic response should have their hepatitis B surface antigen (HBsAg) tested. Students who are non-immune to hepatitis B should be offered Hepatitis B immune globulin.



STUDENT HEALTH SERVICES
 Medical University of South Carolina
 30 Bee Street – Suite 102, MSC 980
 Charleston, SC 29425
 Office: (843) 792-3664 Fax: (843) 792-2318

CERNER Registration
HNAM Client/Facility
SHIV/SHIV
CERNER CODE SHIV

Laboratory Services
 165 Ashley Ave, Room 318
 Charleston, SC 29425
 Phone: (843) 792-0707, FAX: (843) 792-4896

**STUDENT BLOOD EXPOSURE
 PROTOCOL LABS FOR SOURCE PATIENT
 MUSC CAMPUS**

BLOOD/BODY FLUID EXPOSURE PROTOCOL

- **Exposure Site:** Percutaneous Wounds – wash with soap/water x 5 minutes. MUCOUS Membranes: Flush with water x 15 minutes
- **Report Exposure** ASAP to Supervisor. During week (M-F) 8:00 – 4:30 PM call Student Health (792-3664), Option # 1. After hours and weekends page Hospital Supervisor (792-2123).
- If **SOURCE PATIENT** known **HIV (+)**, have hospital operator (792-2123) page Dr. Blumenthal immediately.
- **LABS On Source:** Draw (1) Gold Top SST (5 mL min volume) on **SOURCE PATIENT**.
- **Label** blood specimens with **SOURCE PATIENT'S:** Name, MRN, DOB
- **Transport:** Take **SOURCE PATIENT** blood samples with this completed **STAT** lab request to the laboratory on the 3rd Floor of the MUSC Extension Building (former MUSC Children's Hospital), Room # 319 or Tube #99.

Lab Result Reporting: Monday – Friday 8:00 AM – 4:30 PM call Student Health Services (792-3664) or Page Dr. Larry Blumenthal @ Pager # 14032. Afterhours, Weekends, or Holidays page House Supervisor (HS) on call (792-2123).

SHIV - Source Patient Sample

DATE: _____ **TIME:** _____ **PHLEBOTOMIST NAME:** _____

HS Name: _____ **Pager:** _____ **Extension:** _____

SOURCE PATIENT NAME: _____

MRN # : _____

DOB: _____

Ordering Provider: Laurence Blumenthal, MD MUSC Student Health Services

ATTN: FFL Accessioning: Use Social Security Number if MRN is not available.

Enter using Patient Name

Use MRN (or SS# when MRN Not Available). Use format of ordering staff initials with date/time of service for Fin #.

BLOODBORNE EXPOSURE LABS

<u>CODES</u>	<u>TESTS</u>	<u>SPECIMEN TUBES</u>
<input checked="" type="checkbox"/> BC	BC (BLOOD CONTAMINATION ON THE SOURCE PATIENT)	ONE (1) Gold Top SST TUBE
Attn LSS	TESTS INCLUDE: HIV, HCV AB, Hep B Surface Antigen	(5 mL minimum volume)
Order As STAT	All suspect/reactive HIV ½ Ab will be reflexed to the HIV Multispot Differentiation for confirmation. All Equivocal or Reactive HCV results will be reflexed to the Hepatitis C Viral Load by Quant PCR	
<input type="checkbox"/> OTHER	_____	_____



BLOODBORNE PATHOGEN EXPOSURE ASSESSMENT

MUSC STUDENT HEALTH SERVICES
Medical University of South Carolina
30 Bee Street – Suite 102, MSC 980
Charleston, South Carolina 29425
Office: (843) 792–3664 Fax: (843) 792 – 2318

Today's Date: _____

Date/Time of Exposure: _____ : ____ AM/PM Date/Time Reported: _____ : ____ AM/PM

Student's Name: _____

College: Med Dental Nursing CHP _____ Other _____ Clinical Year: _____

Student Contact #:(_____) _____

Clinical Location: _____ Rotation: _____

Supervising Faculty Member: _____

Type of Exposure (Specify Below):

Percutaneous (Punctures, Scrapes, Cuts, etc.):

Hollow Needle (Gauge)_____ Solid Sharp Instrument _____ Other _____

Safety Device on Instrument: Yes No Safety Device Utilized: Yes No

Instrument Used For: _____

Injury Location: _____ Injury Depth: _____ mm

Body Fluid Involved: Blood Other _____ Amount of Fluid: _____ (ml)

Visible Blood Present on Instrument: Yes No Potentially

Primary User of Instrument: Self Resident Attending Other _____

Protective Equipment: None Gloves (1 pr) Gloves (2 pr)

Mucous Membrane Exposure (Splash of blood/bloody fluid to mucous membrane or nonintact skin):

Body Site Exposed: _____

Body Fluid Involved:

Blood Other Fluid (specify)_____ Visible Blood Present in Fluid? Yes No Potentially

Amount of Fluid: < drop drop 0.5 ml 1 ml > 1 ml

Primary User of Instrument: Self Intern/Resident Attending Other _____

Protective Equipment Used: None Protective Eyewear: Goggles/Shield Face Mask Gown

Other Type Exposure:

Mechanism of Injury (Describe how exposure occurred):

Has Wound Been Washed with Soap/Water for 5 minutes (for splashes irrigated with water for 15 minutes)? Yes No

Source Patient Name: _____ DOB: _____ MRN/SSN: _____

Source Pt Status: Unknown with no Risk Factors Unknown w/ (+) Risk Factors: _____ HIV+ Hepatitis C+ Hepatitis B surface Ag+

For Known HIV (+) Source:

Antiviral Medications: _____

Last HIV Viral Load Test (Result/Date): _____ Healthcare Provider Managing Condition: _____

Student Information:

Student Hepatitis B Vaccine Series Completion/Year: No Yes (Date) _____

Student Hepatitis B surface Antibody Status: Unknown Non-Immune Immune (Date): _____

(MUSC students can view their immunizations and antibody titers @ <https://lifenet.musc.edu> using their MUSC Net ID and password)