MUSC
Medical University of South Carolina

BLOOD BORNE PATHOGEN EXPOSURE CHECKLIST

Exposures at MUSC AnMed Health Clinical Campus

- ☐ Immediate First Aid of Injury
- ☐ Report Exposure to Supervisor
- ☐ Ensure that **Source Patient's** blood be tested immediately (HIV results determined < 2 hours)
- ☐ Documentation of Exposure
  - Complete the necessary documentation required by AnMed Health
  - Complete the MUSC Blood Borne Pathogen Assessment Form
  - Complete the online MUSC ACORD Form
- ☐ Follow Up of Source Lab Results
  - A provider at AnMed Health will review the the details of the exposure and source lab results in a timely manner. They will determine if anti-viral prophylaxis is indicated, as well as the need for follow-up surveillance lab testing on the student, per current national occupational guidelines.
  - AnMed Health will initiate post-exposure prophylaxis in a timely manner if needed.
- ☐ Follow Up of Student
  - If the student is no longer enrolled at the AnMed campus, MUSC Student Health will continue management of post-exposure antiviral prophylaxis and/or perform any necessary follow-up lab testing on the student per MUSC protocol.

See following pages for details on the steps to follow

MUSC
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MUSC Student Blood/Body Fluid Exposure

MUSC AnMed Health Clinical Campus

Students who sustain a blood borne pathogen exposure while engaged in sponsored clinical education activities at AnMed Health are to follow AnMed Health's Blood Borne Pathogen policy (per the COM Affiliation Agreement with that institution) . AnMed Health will provide post-exposure prophylaxis and follow-up lab testing as needed. MUSC Student Health Services (SHS) will provide follow-up counseling for blood borne pathogen exposures that occur at AnMed Health, and if the students prefers, can provide follow-up testing at SHS in Charleston.

Students who participate in volunteer activities (medical mission work, health fairs, etc.) that are not sponsored by AnMed Health or MUSC are strongly encouraged to ensure that there is a blood borne pathogen exposure protocol in place by the sponsor of that activity that assumes responsibility for the management and expense of any potential exposures.

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). Intact skin is an effective barrier and contact with blood does not need to be reported. Wash with Soap and Water for 5 minutes.
- **Mucous membranes** (splashes to eyes, mouth, etc.): Flush extensively with water or saline for 15 minutes.

AVOID chemical cleansers that irritate the skin (Alcohol, hydrogen peroxide, Betadine or other chemical cleansers). Avoid "milking" or squeezing out needle stick 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.

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

2. Notify Your Supervisor of Exposure

Notify your immediate supervisor of the exposure **after** completing emergency First Aid to the exposure site.

Affiliated Healthcare Facility Responsibilities:

For students receiving clinical training at AnMed Health , the College of Medicine ensures that this site provides a safe environment and has a clearly defined BBP protocol in place to ensure timely management of all occupational exposures. This includes provision of:

1. Personal Protective Equipment appropriate for the procedure.
2. Proper 'engineering controls' to minimize risk of occupational exposure to sharps (self-sheathing needles, sharps disposal containers, etc.).
3. Appropriate supervision of the student during any exposure prone procedure.
4. Qualified individual to conduct the initial assessment of the exposure (assess the nature of the exposure and body fluid involved, determine if an exposure took place, review the medical history of the source patient, facilitate appropriate lab testing, etc.).
5. Immediate testing of the source patient's blood for blood borne pathogens (Rapid HIV results on the source patient should be known within 1-2 hours after the exposure).
6. Initiation of anti-viral prophylaxis within 1-2 hours of the exposure should be available when indicated for exposures to HIV + source patients or offered in situations when there will be a delay in determining the HIV status of the source.
7. When indicated, AnMed Health will provide any necessary testing (baseline serology, chemoprophylaxis surveillance labs) to the student as long as the student is enrolled and assigned to that campus.
8. When follow up of the exposed student is necessary and/or if the student leaves the AnMed Health campus, AnMed Health will provide MUSC Student Health Services with the necessary documentation on the source patient (lab test results, medical history) and student (serology, etc.).
9. Students who are in the Charleston area can have any necessary follow up testing performed at MUSC Student Health Services (per MUSC protocol) the next working day and do not need to have these labs performed at the affiliated institution.

Responsibilities of MUSC:

1. Ensure that the MUSC student meets the occupational immunization requirements of AnMed Health.
2. Provide the AnMed Health with documentation of the student's immunization status (including Hepatitis B Surface Antibody) on request.
3. Provide the necessary follow-up counseling; provide any management of the exposure if the student prefers to seek care in Charleston.

3. LAB Testing:

Source Patient: It is essential that the **SOURCE Patient's Blood** be tested for HIV as soon as possible (ideally within an hour) after an exposure. If the source patient is known to be HIV + (or Rapid HIV test is +), then prophylactic medications should be initiated within 1-2 hours of the exposure. Results for other blood borne pathogens on the source patient (Hepatitis B Surface Antigen [HBsAg] and Hepatitis C Virus Antibody [HCV Ab] should be known within 24 -48 hours.

Student Lab Testing: Testing the **source** patient's blood for blood borne pathogens is the most important laboratory procedure that needs to be performed after an exposure. Immediate lab testing of the student's blood is not necessary after most exposures. See **Student Follow Up of Exposure** below.

4. Documentation of Exposure

- Complete the documentation per the protocol of the healthcare facility.
- Complete the online MUSC ACORD form: https://www.carc.musc.edu/acord/
  In the event of a Blood Borne Occupational Exposure, students who are engaged in required clinical coursework and are functioning in a healthcare provider capacity are covered under South Carolina Workers Comp, just as an employee would be covered. It is important to document the exposure by completing an online ACORD Form.
  - Click on the link: "Online ACORD Form"
  - Use your MUSC ID and password.
  - For "Employer" there is a drop down menu - > Click "MUSC Student" and complete the form.

- Source Patient's Lab Results – if follow-up management of the exposure is necessary, have the institution forward the results of source patient's labs (HIV, HBsAg, HCV Ab) to MUSC Student Health Services by secure FAX (843-792-2318).

- Complete the MUSC Blood Borne Pathogen Exposure Assessment Form (attached) and FAX to MUSC Student Health (842-792-2318). The qualified provider who is managing the exposure at your affiliated clinical site should guide collection of the essential information on the source patient, which includes:

  - Patient: Name, Date of Birth, Medical Record Number. Known Health Conditions (HIV, Hepatitis C, Hepatitis B), Risk Factors (Blood transfusions prior to 1986, IV Drug Abuse, Incarceration, High Risk Sexual Behavior, etc.).
  - Exposure: Time of Exposure, Type of Exposure (Splash, Puncture, Laceration), Site of Exposure, Depth of Injury, Body fluid involved, instrument involved, Visible Blood on Instrument, Personal Protective Equipment Used (Single/Double Gloved, Protective Eyewear), Length of time from exposure to washing injury site, narrative of events that led to the exposure.
  - Source Patient is Known HIV (+): Previous and current antiviral regimens, last HIV Viral Load, Name of Healthcare Provider who manages their condition.

Student Follow Up of Exposure: Students who sustain a blood borne pathogen exposure while performing clinical activities at AnMed Health and require immediate management are to follow the protocol of the healthcare facility. If the student is in Charleston they can call Student Health at (843) 792-3664 for phone consultation during normal clinic hours for the following clinical scenarios:

- **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.

Follow up When the Source is (+) for a Blood Borne Pathogen:

- **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. Students in Charleston who sustain an exposure to an HIV + source when Student Health is open should immediately call the clinic (843) 792-3664 for management instructions. Documentation of the exposure and results of the source patient's labwork can be sent to a secure FAX at Student Health (843) 792-2318. It is the responsibility of the affiliated clinical site to manage exposures that occur after hours or when the student is not in Charleston. Students can follow up at Student Health for any necessary management when they return to Charleston.
- **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. Students needing follow up can submit the necessary documentation of the exposure **(**per **Documenting The Exposure)** and MUSC Student Health can provide follow up management.

Payment of Medical Charges

If it becomes necessary for post-exposure antiviral prophylaxis to be initiated or baseline testing to be performed on the student at an outside facility, it is **essential** for the student to complete the appropriate documentation (see **Documenting the Exposure**) and forward to MUSC Student Health Services. Exposures that occur during clinical coursework will be covered under South Carolina Workers Comp. **DO NOT ALLOW FOR YOUR PRIVATE HEALTH INSURANCE PLAN TO BE BILLED FOR CHARGES** (LABS/MEDICATIONS/ OCCUPATIONAL EVALUATION) **RESULTANT FROM AN OCCUPATIONAL EXPOSURE**. Once a student's private health insurance has been billed and processed, it is extremely difficult to retroactively have these charges reversed.

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 ☐> 1ml
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 (eye splashes irrigated with water or saline for 15 minutes)? ☐Yes ☐No
Source Patient Name:_____DOB:_____/____/_____MRN/SSN: _____
Source Pt Status:
☐**Unknown** with no Risk Factors ☐**Unknown** w/ (+) Risk Factors: _____ **Known** ☐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 (3) Completion/Year: ☐No ☐Yes _____
Student Hepatitis B surface Antibody Status: ☐Unknown ☐ Non-Immune ☐ Immune (Date of Immune Titer): _____

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