Infectious Disease: Policy for students who contract an infectious disease

Students who contract a serious infectious disease during medical school must immediately seek appropriate medical care. Students must also report any such occurrence to University Health Services (UHS) or contact UHS if you have specific questions (513-584-4457).

Bloodborne / Bodily Fluid/Respiratory Exposure: Hepatitis, HIV, TB, Meningitis Infection Prevention

AFTER A NEEDLESTICK OR BODY FLUID EXPOSURE

*** IF indicated, HIV prophylaxis needs to start within 2 hours. ***

The purpose of this policy is to protect students from the risks of being occupationally infected with the Human Immunodeficiency Virus (HIV), Hepatitis B virus, Hepatitis C virus, tuberculosis or any other pathogen transmitted by blood, other body fluid or respiratory secretions. However, each student is responsible for his/her health and safety in the clinical/educational setting, and all students should be familiar with the policies and procedures to follow in the event that they are injured or potentially exposed to bloodborne/respiratory pathogens or other infectious diseases.

Medical students must comply with specific clinical departmental guidelines regarding contact with patients who have infectious diseases. Precautions and appropriate safeguards are expected to be used in the treatment of all patients. Universal blood and body fluid precautions lessen the risk of exposure to such fluids, and these precautions must be used routinely.

DEFINITION OF EXPOSURE

An exposure incident occurs when human blood or other potentially infectious materials enter your body by:

- A splash to the eye, mouth or other mucus membrane;
- Respiratory secretions;
- Contamination of non-intact skin; or
- A puncture or cut with a sharp instrument that has been exposed to another's body fluid.

PROCEDURES

A. Bloodborne/Bodily fluids

The exposed student must:

Administer first aid immediately.

- Wash needlesticks and cuts with soap and water.
- Flush splashes to the nose, mouth, or skin with copious amounts of water.
- Irrigate eyes with clean water, saline, or sterile irrigants.

Report the exposure to the source patient's medical provider and University Health Services [UHS]:

- During working hours (Monday-Friday, 8:00 a.m. to 4:00 p.m.): (513) 584-4457.
- After hours: (513) 584-STIX (584-7849) and go to the Emergency Room at University Hospital [UH ER] or nearest ER.
- Exposures must be reported IMMEDIATELY. If indicated, post-exposure prophylaxis [PEP] should be started within 2 hours of exposure if possible.
- UHS will assist the student in completing the appropriate University of Cincinnati report forms [A1352(a) and A1352(b)].

The source patient's medical provider should:

Obtain Source Patient Information.

- The source patient's medical provider should be the one to obtain consent from the patient to have source labs drawn (at no cost) and will obtain the results of the source patient's testing for HIV, HBV and HCV at the time of exposure or when medically able to obtain consent.
- Obtain as much demographic and medical data on the source patient as possible. (Name, Date of Birth, Medical Record Number, the diagnosis and history (including history of hepatitis, liver disease, HIV status, blood transfusions and IV drug or alcohol abuse).

B. **Tuberculosis Exposure**

The exposed student:

- Students exposed to a person with active pulmonary or laryngeal tuberculosis will be notified, evaluated, and managed by UHS. UHS will send exposed students an encrypted email &/or telephone call notifying them of the potential exposure with next steps to take.
    - Students, who have a documented negative TB blood or skin test within the past 3 months, will be tested 3 months after exposure.
    - Students, who do not have a documented negative TB blood or skin test within the past 3 months, will be tested as soon as possible (within 2 weeks) of the exposure, and again 3 months after exposure.

TREATMENT

A. Bloodborne/Bodily fluids

- With or without results from the source patient, the student's medical provider (at UHS or the ER) will determine the need for prophylactic treatment.

- **Hepatitis B (HBV)**

    - Prevented by vaccination.

    - For vaccinated health care personnel [HCP], who have written documentation of a complete HepB vaccine series with subsequent documented anti-HBs ≥10 mIU/mL, testing the source patient for HBsAg is unnecessary. No post-exposure prophylaxis for HBV is necessary, regardless of the source patient's HBsAg status.

    - For vaccinated HCP (who have written documentation of a complete HepB vaccine series) without previous anti-HBs testing, the HCP should be tested for anti-HBs and the source patient (if known) should be tested for HBsAg as soon as possible after the exposure. Anti-HBs testing should be performed using a method that allows detection of the protective concentration of anti-HBs (≥10 mIU/mL). Testing the source patient and the HCP should occur simultaneously; testing the source patient should not be delayed while waiting for the HCP anti-HBs test results, and likewise, testing the HCP should not be delayed while waiting for the source patient's HBsAg results.

        - If the HCP has anti-HBs <10 mIU/mL and the source patient is HBsAg-positive or has an unknown HBsAg status, the HCP should receive 1 dose of HBIG and be revaccinated as soon as possible after the exposure. HepB vaccine may be administered simultaneously with HBIG at a separate anatomical injection site (e.g., separate limb). The HCP should then receive the second 2 doses of HepB vaccine to complete the second series (likely 6 doses total when accounting for the original series) according to the vaccination schedule. So the HCP's vaccine response status can be documented for future exposures, anti-HBs testing should be performed 1–2 months after the final vaccine dose.

        - If the HCP has anti-HBs <10 mIU/mL and the source patient is HBsAg-negative, the HCP should receive an additional single HepB vaccine dose, followed by repeat anti-HBs testing 1–2 months later. HCP whose anti-HBs remains <10 mIU/mL should undergo revaccination

with two more doses (likely 6 doses total when accounting for the original series). So the HCP's vaccine response status can be documented for future exposures, anti-HBs testing should be performed 1–2 months after the final dose of vaccine.

- If the HCP has anti-HBs ≥10 mIU/mL at the time of the exposure, no post-exposure HBV management is necessary, regardless of the source patient's HBsAg status.

- For vaccinated HCP with anti-HBs <10 mIU/mL after two complete HepB vaccine series, the source patient should be tested for HBsAg as soon as possible after the exposure. If the source patient is HBsAg-positive or has unknown HBsAg status, the HCP should receive 2 doses of HBIG. The first dose should be administered as soon as possible after the exposure, and the second dose should be administered 1 month later. HepB vaccine is not recommended for the exposed HCP who has previously completed two HepB vaccine series. If the source patient is HBsAg-negative, neither HBIG nor HepB vaccine is necessary.

- For unvaccinated HCP and additional information, refer to CDC guidelines: **Prevention of Hepatitis B**.

- **Human Immunodeficiency Disease (HIV)**
  - Prevented by taking post-exposure prophylactic [PEP] antiretroviral medicine, ideally within 2 hours of exposure.

- **Hepatitis C (HCV)**
  - No preventive therapy available. Students will be advised to work with their personal physician for appropriate care.

B. Tuberculosis

Students who acquire latent tuberculosis infection during UC coursework will be evaluated and treated by UHS, in coordination with Hamilton County TB Control Unit.

C. Meningitis

Students who have had intensive, unprotected (not wearing a mask) contact with an infected patient's oral or nasal secretions should get post-exposure prophylaxis. UHS will provide the post-exposure evaluation and any needed post-exposure medications.

FINANCIAL RESPONSIBILITY

For UCCOM students and all visiting students who have purchased the bloodborne pathogen insurance, all required initial baseline care, follow-up lab testing, and prophylactic medications for a reported episode of potential occupational BBP exposure only are provided at no cost: **Blood Borne Pathogen Exposure Insurance Information for University of Cincinnati Clinical Students**.

Hepatitis, HIV or TB Chronic Infection Policy for Students

The Centers for Disease Control and Prevention (CDC) guidelines suggest that medical students with Hepatitis B, Hepatitis C, or HIV (HBV/ HBC/ HIV) seropositivity can attend classes and participate in clinical clerkships and preceptorships.

PROCEDURES

Prior to the start of clinical experiences, infected students are required to seek medical consultation by a physician from University Health Services or their own personal physician. **It is the responsibility of HBV/HCV/HIV infected medical students to notify and discuss their condition with a provider at University Health Services to determine their ability to perform the duties required of the clinical rotations.** All such notifications will be kept strictly confidential unless disclosure is necessary to protect patients.

Persistent Hepatitis B Virus [HBV] or Hepatitis C Virus [HCV] Antigenemia

POLICY

Medical students infected with viral hepatitis can pose a threat to patients. Cases of hepatitis transmission from physician to patient are documented in the literature, and therefore students infected with viral hepatitis may have additional matters to consider regarding their contact with patients. These considerations will likely extend throughout their education and careers, and form the basis for the following procedures.

PROCEDURES

All medical students are required to obtain hepatitis B vaccination before beginning medical school, and certainly before any patient contact. The vaccine is highly effective at inducing immunity to hepatitis B, and its side effect profile is minimal. Non-responders to six lifetime doses of hepatitis B vaccine will be tested for chronic hepatitis B infection.

Students infected with chronic viral hepatitis (hepatitis B or hepatitis C) are required to discuss their condition with a provider at University Health Services [UHS]. This discussion should include an evaluation of their current health status (or review of data previously collected elsewhere), and the impact their hepatitis infection may have on patients seen during their training.

Students are encouraged but not required to meet with faculty advisors regarding the potential impact hepatitis may have on their future career and specialty choice. This is especially important for any student with chronic hepatitis infection who is considering a surgical career. Appropriate advisors include the Chair/Chief/faculty in the specialty being considered and/or the Associate or Assistant Dean for Student Affairs.

Medical students with active Hepatitis B infection (i.e., HBsAg positive) who do not perform exposure-prone procedures but who practice non- or minimally invasive procedures should not be subject to any restrictions of their activities or study.

Student who have a HBV PCR viral load of 1000 IU/ml or greater may pose a greater risk to patients when performing exposure-prone procedures and/or techniques and certain restrictions regarding full participation in these may be warranted. For a list of exposure-prone procedures and techniques, see MMWR July 6, 2012 Updated CDC Recommendations for the Management of Hepatitis B Virus-Infected Health-Care Providers and Students, Box, p. 8.

Students who have a consistent HBV viral load less than 1000 IU/ml do not require any restrictions in participating in exposure-prone procedures and/or techniques.

Students who have chronic viral hepatitis (Hepatitis B) who may be rotating on surgical or OB/GYN rotations are required to have HBV PCR at least every 6 months, regardless of their HBeAg status. These students may require restrictions for participating in exposure-prone procedures and/or techniques. UHS will refer these students to the Office of Accessibility Resources (OAR) on main campus to follow the procedure for requesting accommodations. UHS will be available to provide medical documentation required by OAR.

Positive Human Immunodeficiency Virus (HIV)

POLICY

Medical students infected with HIV can pose a threat to patients. These considerations will likely extend throughout their education and careers, and form the basis for the following procedures.

PROCEDURES

Prior to the start of clinical experiences, infected students are required to seek medical consultation by a physician from University Health Services or their own personal physician. **Students infected with HIV are required to discuss their condition with a provider at University Health Services [UHS] to determine their ability to perform the duties required of the clinical rotations.** All such notifications will be kept strictly confidential unless disclosure is necessary to protect patients. This discussion should include an evaluation of their current health status (or review of data previously collected elsewhere), and consider the impact their infection may have on patients seen during their training.

Students are encouraged but not required to meet with faculty advisors regarding the potential impact HIV may have on their future career and specialty choice. This is especially important for any student with HIV infection who is considering a surgical career. Appropriate advisors include the Chair/Chief/faculty in the specialty being considered, and/or the Associate or Assistant Dean for Student Affairs.

Medical students with HIV infection who do not perform exposure-prone procedures but who practice non- or minimally invasive procedures should not be subject to any restrictions of their activities or study.

Medical students who have an HIV load of > 200 copies/ml may pose a greater risk to patients when performing exposure-prone procedures and/or techniques. UHS will refer these students to the Office of Accessibility Resources (OAR) on main campus to follow the procedure for requesting accommodations. UHS will be available to provide medical documentation required by OAR. Certain restrictions regarding full participation may be warranted. For a list of exposure-prone procedures and techniques, see MMWR July 6, 2012 Updated CDC Recommendations for the Management of Hepatitis B Virus-Infected Health-Care Providers and Students, Box, p. 8.

Positive Tuberculosis (TB)

POLICY

Medical students with confirmed infectious pulmonary, laryngeal, endobronchial, or tracheal TB disease, or a draining TB skin lesion pose a risk to patients, HCWs, and others. These considerations will likely extend throughout their education and careers, and form the basis for the following procedures

PROCEDURES

Prior to the start of clinical experiences, infected students are required to seek medical consultation by a physician from University Health Services or their own personal physician. **Students infected with TB are required to discuss their condition with a provider at University Health Services [UHS] to determine their ability to perform the duties required of the clinical rotations.** All such notifications will be kept strictly confidential unless disclosure is necessary to protect patients. This discussion should include an evaluation of their current health status (or review of data previously collected elsewhere), and the impact their infection may have on patients seen during their training. Students are also encouraged but not required to meet with faculty advisors regarding the potential impact TB may have on their future career and specialty choice. Appropriate advisors include the Chair/Chief/faculty in the specialty being considered, and/or the Associate or Assistant Dean for Student Affairs.

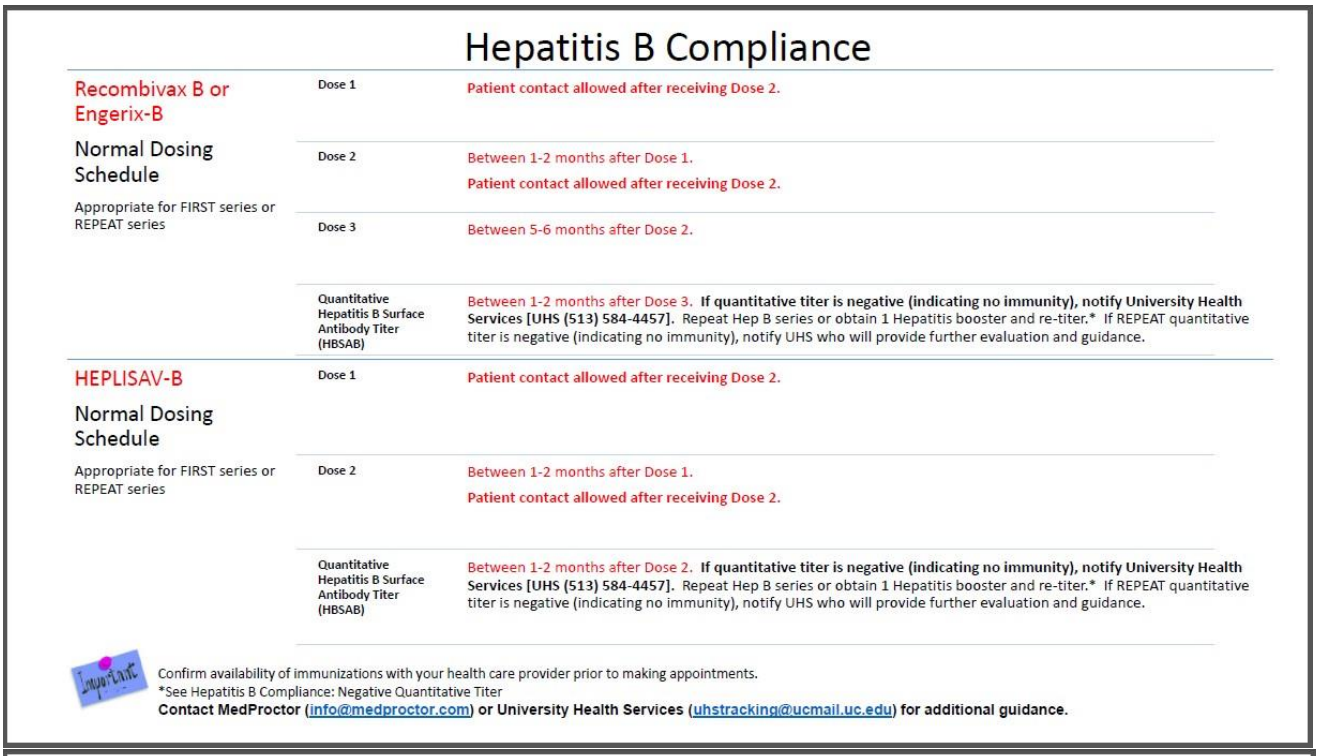
Medical students with a newly positive test result for *M. tuberculosis* infection should receive one chest radiograph result to exclude TB disease. If the X-ray is positive, they should be excluded from school until these criteria have been met:

1) Three consecutive sputum samples collected in 8–24-hour intervals are negative, with at least one sample from an early morning specimen (because respiratory secretions pool overnight);

2) Response to anti-tuberculosis treatment that will probably be effective (can be based on susceptibility results); and
3) Determination by UHS of student's non-infectiousness.

Medical students with extra-pulmonary TB disease usually do not need to be excluded from school or rotations as long as no involvement of the respiratory track has occurred. They can be confirmed as noninfectious and can continue to work if documented evidence is available that indicates that concurrent pulmonary TB disease has been excluded.

Medical students receiving treatment for latent tuberculosis infection can return to work immediately.

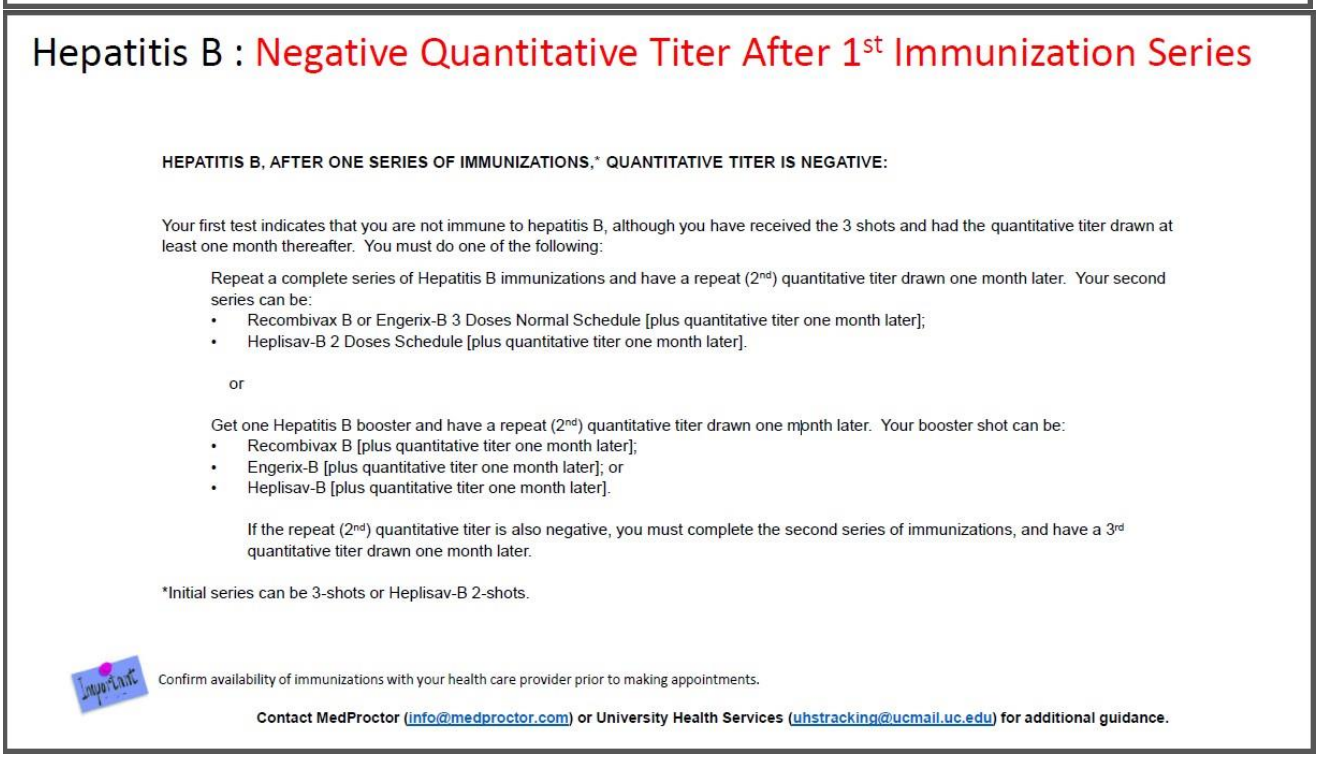


Hepatitis B Compliance

Recombivax B or Engerix-B Normal Dosing Schedule Appropriate for FIRST series or REPEAT series	Dose 1	Patient contact allowed after receiving Dose 2.
	Dose 2	Between 1-2 months after Dose 1. Patient contact allowed after receiving Dose 2.
	Dose 3	Between 5-6 months after Dose 2.
	Quantitative Hepatitis B Surface Antibody Titer (HBSAB)	Between 1-2 months after Dose 3. **If quantitative titer is negative (indicating no immunity), notify University Health Services [UHS (513) 584-4457].** Repeat Hep B series or obtain 1 Hepatitis booster and re-titer.* If REPEAT quantitative titer is negative (indicating no immunity), notify UHS who will provide further evaluation and guidance.
HEPLISAV-B Normal Dosing Schedule Appropriate for FIRST series or REPEAT series	Dose 1	Patient contact allowed after receiving Dose 2.
	Dose 2	Between 1-2 months after Dose 1. Patient contact allowed after receiving Dose 2.
	Quantitative Hepatitis B Surface Antibody Titer (HBSAB)	Between 1-2 months after Dose 2. **If quantitative titer is negative (indicating no immunity), notify University Health Services [UHS (513) 584-4457].** Repeat Hep B series or obtain 1 Hepatitis booster and re-titer.* If REPEAT quantitative titer is negative (indicating no immunity), notify UHS who will provide further evaluation and guidance.

Important

Confirm availability of immunizations with your health care provider prior to making appointments.
*See Hepatitis B Compliance: Negative Quantitative Titer
Contact MedProctor (info@medproctor.com) or University Health Services (uhstracking@ucmail.uc.edu) for additional guidance.



Hepatitis B : Negative Quantitative Titer After 1st Immunization Series

HEPATITIS B, AFTER ONE SERIES OF IMMUNIZATIONS,* QUANTITATIVE TITER IS NEGATIVE:

Your first test indicates that you are not immune to hepatitis B, although you have received the 3 shots and had the quantitative titer drawn at least one month thereafter. You must do one of the following:

Repeat a complete series of Hepatitis B immunizations and have a repeat (2nd) quantitative titer drawn one month later. Your second series can be:

- Recombivax B or Engerix-B 3 Doses Normal Schedule [plus quantitative titer one month later];
- Heplisav-B 2 Doses Schedule [plus quantitative titer one month later].

or

Get one Hepatitis B booster and have a repeat (2nd) quantitative titer drawn one month later. Your booster shot can be:

- Recombivax B [plus quantitative titer one month later];
- Engerix-B [plus quantitative titer one month later]; or
- Heplisav-B [plus quantitative titer one month later].

If the repeat (2nd) quantitative titer is also negative, you must complete the second series of immunizations, and have a 3rd quantitative titer drawn one month later.

*Initial series can be 3-shots or Heplisav-B 2-shots.

Important

Confirm availability of immunizations with your health care provider prior to making appointments.

Contact MedProctor (info@medproctor.com) or University Health Services (uhstracking@ucmail.uc.edu) for additional guidance.

Hepatitis B: Negative Quantitative Titer After 2nd Immunization Series

HEPATITIS B, AFTER SECOND SERIES OF IMMUNIZATIONS, QUANTITATIVE TITER IS NEGATIVE:

Your repeat HBSAB did not indicate an immunity response.

You must visit UHS.

- You will be tested for chronic Hepatitis B infection.
- You might be excluded from patient care activities that could expose you to blood/body fluids. More typically, the only way that non-responders are treated differently is in the event of an exposure (e.g., your sustaining a needle-stick from someone with a positive HBsAg, hepatitis B disease, or unknown status). CDC currently recommends that in the event of a known positive or unknown exposure, a nonresponder would get 2 HBIG shots.
- You may be referred to UC's Office of Accessibility Resources (OAR) to determine if any accommodations are necessary.
- Please take cautionary measures to protect yourself, maintain a copy of your immunization records in your personal files, and in the event of a bloodborne pathogen exposure please follow up as necessary.

Contact MedProctor (info@medproctor.com) or University Health Services (uhstracking@ucmail.uc.edu) for additional guidance.

Confirm availability of immunizations with your health care provider prior to making appointments.

Contact MedProctor (info@medproctor.com) or University Health Services (uhstracking@ucmail.uc.edu) for additional guidance.