

Residents and Fellows with Bloodborne Pathogen Infection

The following are responsible for the accuracy of the information contained in this document

Responsible Policy Administrator:
Associate Dean for GME

Responsible Department:
Office of GME

Effective Date September 1, 2011 (revised 8/1/2013 and 11/14/2014, 2/10/2017)

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Policy Statement

The University of Massachusetts Medical School (UMMS) recognizes its duty to minimize the risk of transmission of bloodborne pathogens (BBP) by residents and fellows sponsored and employed by UMMS. UMMS also recognizes its duty to provide a study and work environment which is free from discrimination. This Policy has been developed to ensure that UMMS acts in a manner consistent with these two duties.

This Policy is based on currently available evidence from the medical literature and position papers from discipline-specific organizations. Revision of this policy may occur from time to time in light of new scientific evidence.

Reason for Policy

The intent of this Policy is to limit the possibility of transmission of blood-borne pathogens (BBP) by infected residents and fellows within both the educational and clinical settings. UMMS recognizes, however, that it is not possible to completely eliminate all risk of infection.

Entities Affected By This Policy

- Residents and fellows (in the remainder of this documents the term **RESIDENT** will be used to indicate both residents and fellows).
- Patients who have residents involved in their care.
- Faculty and administrators supervising the education of residents.
- Medical providers at UMMS Employee Health Service.

Related Documents

Henderson DK et al. SHEA Guidelines for Management of Healthcare Workers Who are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus. Infection Control and Hospital Epidemiology, March 2010;31:203-232.

Centers for Disease Control. Updated CDC recommendations for the management of hepatitis B virus-infected health-care providers and students. MMWR 2012;61/No. 3.

UMass Memorial Medical Center Policy 5008: Management of a Workforce Member in Relation to Bloodborne Pathogen Infection.

UMass Memorial Medical Center Policy 5033: Covered Providers in relation to Bloodborne Pathogen Infection

Scope

This Policy applies to all residents employed by UMMS and enrolled in sponsored residency programs (ACGME accredited and non-accredited), as well as visiting residents.

Definitions

Bloodborne Pathogen (BBP):	Any microbiologic agent capable of being transmitted via contact with the blood of an infected individual. Most notably, this definition includes, but is not limited to, the human immunodeficiency virus (HIV), hepatitis-B virus (HBV), and hepatitis-C virus (HCV).
Exposure Prone Procedures:	Procedures during which BBP transmission is definitely or theoretically possible in accordance with “Updated CDC Recommendations for the Management of Hepatitis B virus-infected health-care providers and students”. Morbidity Mortality Weekly Report July 6, 2012 (see appendix).
Infected Resident:	A resident who has a BBP infection.
Resident or Fellow:	Any resident actively enrolled in a UMMS GME training program (ACGME-accredited or non-accredited), hereinafter “Resident.”

Responsibilities

UMMMC Bloodborne Pathogen Advisory Committee (BPAC)	The BPAC advises UMMS and the UMass Memorial Medical Center (UMMMC) in the management of healthcare workers, including trainees, who are infected with a BBP. The committee is co-chaired by the UMMMC Hospital epidemiologist and director of Employee Health Service and has members from UMMS and UMMMC. The committee meets bi-monthly and on an ad hoc basis.
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Associate Dean for GME	The Associate Dean for GME (ADGME) ensures that infected residents follow this Policy. The ADGME, who is a member of the BPAC, also works with the individual program director to construct an addendum to the resident appointment agreement, as determined by the BPAC.
Office of GME	The Office of GME requires all incoming residents to sign a statement indicating they have read, understood, and are voluntarily agreeing to comply with this Policy.
Employee Health Service	Employee Health Service confirms that all infected residents are receiving appropriate medical care and complying with monitoring agreements if applicable.
Resident	Once offered an opportunity to become employed by UMMS, it is the resident's responsibility to notify the appropriate UMMS personnel of his or her infected status in accordance with this Policy. Furthermore, the resident agrees to waive any rights with respect to confidentiality relating to this Policy's subject matter and protocols if the resident is assigned to a different facility other than UMMC. Depending on the activities to be undertaken at that site, the Associate Dean of GME is authorized to disclose your BBP status on a need-to-know basis.

Procedures

1. General Considerations.

To decrease their risk of acquiring or transmitting BBP's, all UMMS residents will be expected to adhere to principles of infection control "Standard Precautions" at all times. Residents who believe that they may have exposed others to their blood or bodily fluids in a clinical situation have a professional responsibility to notify the attending physician or supervising faculty member and to comply with the applicable reporting and follow-up policies and protocols of the clinical site where the incident occurred. As professionals concerned with the health of others, it is strongly recommended that residents involved in such an incident consent to undergoing diagnostic testing for BBP's as defined below.

2. Admission to UMMS Residency Programs.

An applicant's HBV, HCV, or HIV serologic status may impact their residency training and may limit the type of residency program for which they may be eligible. In general, applicants should be advised that their ability to successfully complete residency programs that are procedurally based may be severely limited or prohibited by their medical status with regard to BBP's. Currently, the 2010 SHEA(HIV and HCV) (attached) and the 2012 CDC (HBV) guidelines are followed when credentialing residents, and all residents with a BBP will be reviewed by the BPAC prior to the credentialing process, to determine whether or not there will be limitations on their training as well as monitoring of their disease status.

3. Medical Assessment.

Prior to beginning their residency training, applicants to UMMS residency programs are expected to undergo testing for anti-hepatitis B surface antibody as a condition of employment unless they are (a) known to be hepatitis B surface antigen positive or (b) can provide proof of prior adequate anti-hepatitis B surface antibody titers. Individuals who as part of their clinical responsibilities at UMMMC will be participating in CDC category I exposure-prone procedures (as defined in Centers for Disease Control reference above) who do not have evidence of a protective anti-HBs level at some point in their life will be required to have a hepatitis B surface antigen assay performed. If the applicant is HBV surface antigen positive, then additional follow-up testing for HBV viral load and other studies will be performed according to UMMS Employee Health Service protocol and the resident will be referred to the BPAC to determine if accommodations are reasonable and appropriate. If the resident is found to have a negative HBV surface antigen level, they will be cleared by employee health. If an applicant is anti-hepatitis B surface antibody and hepatitis B surface antigen negative, and has not already received 2 courses of hepatitis B immunization, they will be offered a three-dose series of hepatitis B vaccine, and follow up anti-hepatitis B surface antibody testing.

4. Visiting Residents

Residents from other institutions visiting UMMS/UMMMC for clinical rotations must submit serologic confirmation of having a positive HBV surface antibody level to the UMMS Office of Graduate Medical Education at the time of application. If, despite undergoing the complete HBV immunization series, a visiting resident has a negative HBV surface antibody level, then the resident needs to provide documentation of HBV surface antigen test results. Visiting residents who are infected with BBP's shall not be permitted a clinical rotation in an exposure-prone field.

5. Other Serologic Testing.

UMMS or visiting residents are not required to undergo serologic testing for HIV or HCV. However, it is the professional responsibility of the resident who may be at risk for HIV or HCV infection to ascertain his/her own serostatus for these infections.

6. UMMS Employee Health Service Responsibilities.

UMMS residents infected with a BBP may come to the attention of UMMS Employee Health Service (EHS). It is the responsibility of the EHS:

- a. To confirm that the infected resident is receiving adequate medical and psychological care, either at the EHS or with the resident's personal physician.
- b. To assist with providing, arranging, and coordinating such care if necessary.
- c. To advise the resident of precautions to be taken to prevent transmission of their BBP infection, both in terms of patient care activities as well as general lifestyle considerations.
- d. To advise the resident of signs of possible progression of their disease that would interfere with his/her physical or emotional ability to fulfill training requirements.

In addition, EHS is expected to perform monitoring evaluations of infected residents per the recommendations of the BPAC which reviews each case individually.

7. Educational Monitoring

Upon notification, the infected resident will meet with the Associate Dean for GME, the residency program director and the chair of the BPAC to:

- a. Review the subject UMMS policy on residents with BBP infection.
- b. Review the UMMMC Policy on Management of a Healthcare Worker Infected with a Bloodborne Pathogen (#5008) and the UMMMC Policy on Medical Staff with Bloodborne Pathogen Infection (#5033) – restated below.
- c. Ensure that the resident is receiving appropriate and monitored medical care.
- d. Review any addendum to the appointment agreement recommended by the BPAC.

8. Confidentiality.

In addition to the language and conditions stated above for “resident” in the Responsibilities section, confidentiality of all information about HIV, HBV, or HCV serostatus will be maintained pursuant to State and Federal laws. Individuals will be informed of a resident’s serostatus on a need-to-know basis only, which generally includes some supervising attendings. If necessary, however, other supervisors may be notified that the individual has a blood-borne infection or that the resident is “sharps restricted”, but they will not be informed of the particular disease. The clinical sites where residents train also may have additional reporting requirements depending upon procedures and activities to be performed by the resident.

9. Accommodations.

UMMS has the right to limit or prohibit performance of high-risk procedures. In compliance with the **Americans with Disabilities Act Amendments** of 2008 (ADAA) residents living with blood-borne diseases are to be treated like anyone else having a “disability” for the purposes of employment at UMMS. UMMS is committed to nondiscrimination of disabled individuals and shall consider and make reasonable accommodations to enable them to complete their job responsibilities. Reasonable accommodations may be made in the residency programs for infected residents so that they will not necessarily be prevented by their BBP disease status from completing their training. However, such potential accommodations are highly dependent on the nature of their training program.

Upon notification that a resident has a BBP, the Associate Dean for GME shall advise the resident that he or she has the right to request an accommodation pursuant to the ADA. The resident shall be encouraged to consult with UMMS’ Diversity and Inclusion Office (DIO) concerning such a request for accommodations. If the resident files such a request, the DIO shall have jurisdiction over it. An accommodation is not considered reasonable if it alters the fundamental nature or requirements of an educational training program, imposes an undue and/or unreasonable hardship on UMMS and/or the clinical training site, or fails to eliminate or substantially reduce a direct threat to the health or safety of others. Infected residents, like all residents, must meet the UMMS “technical standards.”

10. General Principles Governing Clinical Activities of Infected Residents.

Each resident with a BBP infection will have an addendum to their appointment agreement designed by the Associate Dean for GME and the BPAC in light of current available guidance. In addition to practicing Standard Precautions, there are some general guidelines that apply to all residents with a BBP infection including:

- a. In the clinical setting, if an infected resident is asked to participate in a procedure which may put a patient at risk, they should decline participation indicating that they do not have privileges to participate.
- b. If a glove or any other body part of an infected resident is entered or nicked by a needle or sharp instrument, that instrument will be discarded or removed and cleaned, and the resident will retire from the procedure.
- c. If an infected resident sustains an injury that may have exposed a patient to the infected resident's blood or bodily fluid, the resident shall immediately notify the attending physician or responsible faculty member about the incident, and also comply with the applicable reporting and follow-up policies and protocols of the clinical site where the incident occurred. The attending physician should then communicate with the appropriate institutional officials (i.e., risk management, etc.) to initiate a full disclosure process.
- d. In the event that there is transmission of a bloodborne pathogen from an infected resident involved in performing patient care, the Chief Medical Officer with input from the UMMC Bloodborne Pathogen Advisory Committee may initiate a "look back" investigation. Involved patients will be offered testing, counseling, and medical evaluation.

11. General Principles Governing Training Programs of Infected Residents

To ensure that appropriate restrictions and accommodations are put in place for all clinical situations where patients or others are potentially at risk, the infected resident is required to seek authorization from the program director and the Associate Dean for GME for all elective clinical rotations. The Associate Dean for GME must also be notified of any changes in the resident's schedule of clinical experiences. Infected residents will not be permitted to do any elective rotations in specialty areas where they could put patients at risk for a BBP exposure without prior approval of the BPAC. If the resident disagrees with such a determination, s/he may appeal to the BPAC.

Infected UMMS residents wishing to do an elective rotation away will need to follow this Policy as well as the Bloodborne Pathogen Policy of the host institution.

Appendices

Appendix 1:

Henderson DK et al. SHEA guidelines for management of healthcare workers who are infected with hepatitis B virus, hepatitis C virus, and/or human immunodeficiency virus. *Infect Control Hosp Epidemiol* 2010;31:203-232.

Centers for Disease Control. Updated CDC recommendations for the management of hepatitis B virus-infected health-care providers and students. *MMWR* 2012;61/No. 3.

BOX. CDC classification of exposure-prone patient care procedures

Category I. Procedures known or likely to pose an increased risk of percutaneous injury to a health-care provider that have resulted in provider-to-patient transmission of hepatitis B virus (HBV)

These procedures are limited to major abdominal, cardiothoracic, and orthopedic surgery, repair of major traumatic injuries, abdominal and vaginal hysterectomy, caesarean section, vaginal deliveries, and major oral or maxillofacial surgery (e.g., fracture reductions). Techniques that have been demonstrated to increase the risk for health-care provider percutaneous injury and provider-to-patient blood exposure include

- digital palpation of a needle tip in a body cavity and/or
- the simultaneous presence of a health care provider's fingers and a needle or other sharp instrument or object (e.g., bone spicule) in a poorly visualized or highly confined anatomic site.

Category I procedures, especially those that have been implicated in HBV transmission, are not ordinarily performed by students fulfilling the essential functions of a medical or dental school education.

Category II. All other invasive and noninvasive procedures

These and similar procedures are not included in Category I as they pose low or no risk for percutaneous injury to a health-care provider or, if a percutaneous injury occurs, it usually happens outside a patient's body and generally does not pose a risk for provider-to-patient blood exposure. These include

- surgical and obstetrical/gynecologic procedures that do not involve the techniques listed for Category I;
- the use of needles or other sharp devices when the health-care provider's hands are outside a body cavity (e.g., phlebotomy, placing and maintaining peripheral and central intravascular lines, administering medication by injection, performing needle biopsies, or lumbar puncture);
- dental procedures other than major oral or maxillofacial surgery;
- insertion of tubes (e.g., nasogastric, endotracheal, rectal, or urinary catheters);
- endoscopic or bronchoscopic procedures;
- internal examination with a gloved hand that does not involve the use of sharp devices (e.g., vaginal, oral, and rectal examination; and
- procedures that involve external physical touch (e.g., general physical or eye examinations or blood pressure checks).

Appendix 2:

UMass Memorial Medical Center Policy

5008 Management of a Workforce Member in relation to Bloodborne Pathogen Infection	
Developed By: Bloodborne Pathogen Advisory Committee	Effective Date: 8/11/2016
Policy Owner: Dr. Richard Ellison	Approved by: Patrick L. Muldoon, FACHE President, UMass Memorial Medical Center
Applicability: All Workforce members. Requirements applicable to credentialed members of the medical staff, Locum Tenens Physicians, Advance Practice Nurses and Physician Assistants, both employed and private, are delineated in policy 5033	Rescission: Supersedes policy dated: 8/22/13
Keywords: Bloodborne pathogen, Massachusetts Department of Public Health, Bloodborne Pathogen Advisory Committee	

I. Policy:

UMass Memorial Medical Center (UMMMC) recognizes its duty to minimize the risk of transmission of bloodborne pathogens by infected Workforce members within both the educational and clinical settings. UMMMC also recognizes its duty to provide a work environment which is free from discrimination. The policy which follows has been developed to ensure that UMMMC acts in a manner consistent with these two duties. UMMMC recognizes, however, that it is not possible to completely eliminate the risk of infection.

The policy provides procedures for the management of Workforce members at UMMMC who are infected with a bloodborne pathogen. Emphasis is placed on practices to eliminate or control patient and co-worker exposure. A standard protocol is followed if an exposure should occur. Reasonable accommodation to perform the essential functions of the Workforce member's position will be made for a Workforce member who has tested positive for a bloodborne pathogen, unless such accommodation would impose an undue hardship on UMMMC or would pose a direct threat to the Workforce member, patients or others.

This policy is based on currently available evidence from the medical literature and position papers from discipline-specific organizations. UMMMC reserves the right to revise this policy at any time. If any conflicts arise between this policy and policy 5033 Covered Providers with Bloodborne Pathogen Infection, policy 5033 governs Covered Providers as defined in that policy.

II. Definitions:

Bloodborne Pathogen (BBP): Any microbiologic agent capable of being transmitted via contact with the blood of an infected individual. Most notably, this definition includes, but is not limited to, the human immunodeficiency virus (HIV), hepatitis-B virus (HBV), and hepatitis-C virus (HCV).

Exposure Prone Procedures: Procedures during which BBP transmission is definitely or theoretically possible, in accordance with “Updated [CDC](#) Recommendations for the Management of Hepatitis B virus-infected health-care providers and students” Morbidity Mortality Weekly Report July 6, 2012.

Workforce: All employees, contractors, volunteers, trainees (including medical students, interns, residents, allied health professional and business students), members of the medical staff including employed and private physicians, temporary employees, and other persons employed, credentialed or under the control of UMMMC whether or not they are paid by UMMMC.

III. General Procedure:

1. General Considerations.

To decrease their risk of acquiring or transmitting blood-borne pathogens, all UMMMC Workforce members are expected to adhere to principles of Standard Precaution at all times. Workforce members who may have exposed others to their blood or bodily fluids in a clinical situation have a professional responsibility to notify Employee Health and their manager, clinical department division chief or department chair and to comply with the applicable reporting and follow-up policies and protocols of the clinical site where the incident occurred. As Workforce members concerned with the health of others, it is strongly recommended that Workforce members involved in such incidents consent to undergoing diagnostic testing for bloodborne pathogens as defined in this policy.

All Workforce members are oriented and updated annually on Standard Precautions, the Exposure Control Plan and this policy. Workforce members at risk of exposure are offered hepatitis B vaccine if they have not previously been immunized or are known not to be immune to hepatitis B.

2. UMMMC Employee Health Service Responsibilities.

When UMMMC Workforce members infected with a BBP come to the attention of the UMMMC Employee Health Service (EHS), it is the responsibility of the EHS:

- a) To confirm that the infected Workforce member is receiving adequate medical and psychological care, either at the EHS or with the Workforce member’s personal physician.
- b) To assist with providing, arranging, and coordinating such care, if necessary.
- c) To advise the Workforce member of precautions to be taken to prevent transmission of their BBP infection, both in terms of patient care activities as well as general lifestyle considerations.
- d) To advise the Workforce member of signs of possible progression of their disease that would interfere with their ability to fulfill their job requirements.

- e) To perform monitoring evaluations of infected Workforce member per the recommendations of the Bloodborne Pathogen Advisory Committee, which reviews each case individually.
- 3. Routine screening of Workforce members for HBV, HCV and HIV is not required. Workforce members at risk for bloodborne pathogen infection are encouraged to seek appropriate testing and counseling through their personal physician. Individuals who test positive are encouraged to seek regular care from an appropriately experienced physician.
- 4. If in the normal course of hospital activities it is found that: 1) a UMMC Workforce member has not developed a measurable anti-HBs level after receiving both standard and booster immunizations with the HBV vaccine; and 2) that the employee's job responsibilities involve active participation in category I exposure prone procedures (defined in CDC July 6, 2012 reference below); then testing for chronic active HBV infection will be required.
- 5. Confidentiality of all information about HIV, HBV, or HCV serostatus will be maintained pursuant to state and Federal laws. Individuals will be informed of the Workforce member's serostatus on a clinical need-to-know basis and generally include the Workforce member's supervisor and manager.
- 6. If a Workforce member's responsibilities could result in exposing others to HIV, hepatitis B, hepatitis C, or another bloodborne pathogen, or compromise the Workforce member's health status, the employee must notify the EHS, and a determination will be made as to necessary job duty restrictions in consultation with the UMMC Bloodborne Pathogen Advisory Committee.
- 7. UMMC will have the right to restrict from the performance of high-risk procedures Workforce members implicated in transmission of bloodborne pathogens to patients, as well as Workforce members with known measures of high infectivity for any bloodborne pathogen. In some instances, accommodation will not be possible due to the exposure risk, a Workforce member's compromised health status, or implication in a transmission to patient(s), and employment may be terminated.
- 8. In the event that an urgent determination is required, the director of EHS and the chairperson of the UMMC Bloodborne Pathogen Advisory Committee or their designees will define temporary restrictions. In the event that the individual is a trainee, restrictions will be implemented by in accordance with their program requirements and will be communicated to the appropriate person under their program guidelines. As necessary, a transition plan will be developed in conjunction with the respective UMMC, UMMS or other Human Resource Departments (and EEO offices as necessary), and communicated to the Employee Health Service. For other workers and employees, restrictions will be implemented by the individual's immediate supervisor.
- 9. In the event that there is transmission of a bloodborne pathogen from an infected Workforce member involved in performing invasive procedures, the Chief Medical Officer with input

from the UMMC Bloodborne Pathogen Advisory Committee may initiate a "look back" investigation. Involved patients will be offered testing, counseling, and medical evaluation.

10. Managers and Supervisors are responsible for staff awareness of the policy and requiring the reporting of exposures as soon as they occur.

IV. Clinical/Departmental Procedure: N/A

IV. Supplemental Materials:

[Policy 5033 - Covered Providers with a Bloodborne Pathogen Infection](#)

VI. References:

Henderson DK et al. SHEA Guidelines for Management of Healthcare Workers Who are Infected with Hepatitis B Virus, Hepatitis C Virus, and/or Human Immunodeficiency Virus. Infect Control Hosp Epidemiol 2010; 31:203-232.

Centers for Disease Control. Updated CDC recommendations for the management of hepatitis B virus-infected health-care providers and students. MMWR 2012; 61/No. 3.