

Section: UTMB On-line Documentation	01.09 - Policy
Subject: Infection Control & Healthcare Epidemiology Policies and Procedures	12.2.22 - Revised
Topic: 01.09 - Employee Health Center: Communicable Disease Control	1980 - Author

01.09 - Employee Health Center: Communicable Disease Control

Purpose	The Employee Health Center (EHC) will provide preventive and healthcare services to UTMB employees for occupationally-related diseases and injuries. The EHC will interact closely with the Department of Infection Control & Healthcare Epidemiology (ICHE) to decrease the risk for acquisition of communicable diseases by UTMB employees.
Audience	All employees of UTMB hospitals, clinics, outpatient surgical center, contract workers, volunteers, and students
Responsibility of EHC	<ul style="list-style-type: none"> • Assures up-to-date health records for every employee. • Provides vaccination, prophylaxis and tuberculosis evaluation by QuantiFeron-TB Gold (QFT®) blood test, an interferon-gamma (IFN-γ) release assay, commonly known as an IGRA. IGRA is the preferred method of testing. TB skin testing (TST) is an available alternative. • Reports any job-related infection to the Department of Infection Control & Healthcare Epidemiology. • Reports infection hazards to the appropriate department. • Assures that communicable diseases in employees are reported to the Department of Infection Control & Healthcare Epidemiology and to the local Health Department. • Assures the adequacy of policies through regular review and revision. • Maintains a database of employees required to have a tuberculosis evaluation. Reports PPD conversions or positive Quantiferon Gold by employee service and employee location to ICHE on a routine basis. Reports on employee compliance with required tuberculosis tests will also be provided to ICHE.
Responsibility of ICHE	<ul style="list-style-type: none"> • Will identify employees who are required to have tuberculosis tests and the frequency of these tests. • Will review data regarding PPD skin test conversions for employees and take appropriate corrective action as necessary. • Will review data regarding employee compliance with tuberculosis testing, and work with hospital management to increase compliance if necessary. • Will investigate job-related infections and exposures to communicable diseases. • Will advise appropriate action, including prophylaxis, after exposure of employees to communicable diseases. • Develop policies as needed.
Responsibility of UTMB Management	<ul style="list-style-type: none"> • Supports the Employee Health Program. • Encourages employee participation in programs by allowing employees to be seen in the EHC during working hours. • Communicates information regarding programs and advocates participation (i.e. influenza vaccination, review of immunizations and TB skin testing).
Vaccines	Employees will be evaluated upon hire and with the completion of the Initial

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Health History Questionnaire to determine their vaccination and testing requirements.

Employees who are designated as Healthcare Workers (HCWs) must be compliant with IHOP 3.07.07 Vaccination of Healthcare Workers to Protect Patients from Vaccine Preventable Infections.

Screening

Upon hire each employee is entered into the Employee Health Data Base. Employee Health will review the immunization history when required by job function and advise what is required for compliance.

Tuberculosis Screening

Employees will be screened as per Infection Control & Healthcare Epidemiology Policy 01.21 – Tuberculosis (TB) Control Program

Analysis of HCW TB Skin Test/IGRA Data

- Results of employees' tests are maintained in a retrievable database by Employee Health.
- Any time a cluster of test conversions is noted, further evaluation is indicated.
- HCW's/Employees (including physicians), who do not follow the approved screening process (e.g. post-exposure screening), are considered out of compliance with hospital protocol. When delinquent, the employee and supervisor will receive written notification. Failure to comply will result in disciplinary action.

Frequency of screening for healthcare workers

All healthcare workers:

- Are screened upon hire by IGRA. A 2-step TB skin test (TST) is required if the IGRA cannot be performed. New employees with a positive test are evaluated for active disease and for prophylaxis of latent TB.
- Serial screening by IGRA or TST will not be required.
- Post-exposure screening is required. If the employee is known to be IGRA or TST-positive, only a symptom screen is required. An exposure is determined by infectiousness of patient and absence of PPE.
- Healthcare workers known to have a positive TST or IGRA will review symptoms annually. No additional follow-up is required unless symptoms of active disease develop.
- Exposures will be investigated to determine the reason for the event and to review any conversions (latent TB) or active disease related to the exposure. The investigation may include serial screening of healthcare workers for a limited time.
- Refer to Appendix B for compliance expectations for employees

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Employees with Exudative Lesions or Weeping Dermatitis

Employees with exudative lesions and weeping dermatitis must not have direct patient care or handling patient care equipment. Employees must be medically cleared by their personal health provider prior to a return to work. Employee Health Staff can consult and provide guidance in these events.

Pregnant Healthcare Workers

Pregnant healthcare workers are not at greater risk of contracting infectious diseases than are other healthcare workers who are not pregnant; however, if a healthcare worker develops an infection such as HIV, Varicella, Hepatitis B, CMV, or Rubella during pregnancy, the infant may be at risk of becoming infected. Because of this risk, pregnant healthcare workers should be especially familiar with and strictly adhere to precautions to minimize the risk of transmission of infectious diseases. Work reassignment is generally not necessary. Pregnant women should not work with patients who have Varicella infection without serologically documented immunity to Varicella Zoster virus. Pregnant healthcare workers who have questions regarding exposure in the hospital should contact ICHE.

Hepatitis A Exposures

Persons who have been recently exposed to HAV and who have not previously received hepatitis A vaccine should be administered a single dose of IG (0.01 mL/kg) as soon as possible. Efficacy when administered > 2 weeks after exposure has not been established. Persons who have been administered 1 dose of hepatitis A vaccine at ≥ 1 month before exposure to HAV do not need IG.

Because hepatitis A cannot be reliably diagnosed on clinical presentation alone, serologic confirmation of HAV infection in index patients by IgM anti-HAV testing is recommended before postexposure treatment of contacts. Screening of contacts for immunity before administering IG is not recommended because screening would result in delay.

If hepatitis A vaccine is recommended for a person being administered IG (e.g., a person with a recent exposure but also an indication for vaccination), it may be administered simultaneously with IG at a separate anatomic injection site.

Hepatitis B, C and HIV Exposures

See Policy 01.02 Bloodborne Pathogens (BBP) – Occupational Post-Exposure Prophylaxis.

Hepatitis B Immunization Program

Serologic Testing for HBV Infection

Pre-vaccination serologic testing is indicated for:

- Persons born in geographic regions with HBsAg prevalence of ≥ 2% (e.g., much of Eastern Europe, Asia, Africa, the Middle East, and the Pacific Islands)
- Persons from certain indigenous populations from countries with overall low HBV endemicity (< 2%)

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- Persons with behavioral exposures to HBV
 - o Men who have sex with men
 - o Past or current injection drug users
- Persons receiving cytotoxic or immunosuppressive therapy
- Persons with liver disease of unknown etiology
- Because certain persons might have been infected with HBV before they received Hepatitis B vaccination, HBsAg testing is recommended regardless of vaccination history for persons:
 - o Born in geographic regions with HBsAg prevalence of $\geq 2\%$
 - o U.S. Born persons not vaccinated as infants whose parents were born in regions with high HBV endemicity (HBsAg prevalence) ($\geq 8\%$).
 - o Persons who received Hepatitis B vaccination as adolescents or adults after the initiation of risk behaviors.
 - o Persons who are HIV-positive or who receive hemodialysis.
- Testing HCW at risk for HBV infection should consist of a serologic assay for HBsAg, in addition to either anti-HBc or anti-HBs.
- For unvaccinated HCW at risk for previous HBV infection, blood should be drawn for testing before the first dose of vaccine is administered.

All Healthcare Workers (HCW's) must be offered immunization with Hepatitis B Vaccine at UTMB's expense within 10 days of initial assignment. HCW trainees (e.g. residents) should complete the series before the potential for exposure with blood or body fluids. OSHA also mandates that HCW who refuse Hepatitis B vaccination sign a declination statement.

- HCW who refuse Hepatitis B vaccination can obtain vaccination at a later date at no expense if the HCW is still covered under OSHA Bloodborne Pathogens Standard.
- HCWs who are incompletely vaccinated should receive additional doses to complete the vaccine series
- The hepatitis B vaccine will be dosed at intervals recommended as per manufacturer's guidance for the specific vaccine product being used
- The vaccine series does not need to be restarted for HCWs with an incomplete series; however, minimum dosing intervals should be heeded.
- HCW lacking documentation of Hepatitis B vaccination should be considered unvaccinated (when documentation for Hepatitis B vaccine doses is lacking) and should receive additional doses to complete a documented Hepatitis B vaccine series.
- Documentation of "missing" doses of Hepatitis B vaccine should be sought from the Immunization Information System (IIS), when feasible, to avoid unnecessary vaccination. 800-CDC-INFO (800-232-4636).

Postvaccination Serologic Testing

All HCW recently vaccinated or recently completing Hepatitis B vaccination who are at risk for occupational blood or body fluid exposure should undergo anti-HBs testing. Anti-HBs testing should be performed 1-2 months after administration of the last dose of the vaccine series when possible. HCW with documentation of a complete ≥ 3 dose Hepatitis B vaccine series but no documentation of anti-HBs ≥ 10 mIU/mL who are at risk for occupational blood or body fluid exposure should undergo anti-HBs testing upon hire or matriculation.

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- Testing should use a quantitative method that allows detection of the protective concentration of anti-HBs (≥ 10 mIU/mL) (e.g., enzyme-linked immunosorbent assay [ELISA]).
- Completely vaccinated HCW with anti-HBs < 10 mIU/mL should receive an additional dose of Hepatitis B vaccine, followed by anti-HBs testing 1-2 months later. HCW whose anti-HBs remains < 10 mIU/mL should receive 2 additional vaccine doses (usually 6 doses total), followed by repeat anti-HBs testing 1-2 months after the last dose.
- Alternatively, it might be more practical for very recently vaccinated HCW with anti-HBs < 10 mIU/mL to receive 3 consecutive additional doses of Hepatitis B vaccine (usually 6 doses total) followed by anti-HBs testing 1-2 months after the last dose.

Meningococcal Exposure

Any individual who has been in the room of a patient with meningococcal disease while not wearing a surgical mask is a candidate for prophylaxis. "Intimate" contact with a patient defined as extremely close exposure to the patient's respiratory secretions (i.e. mouth-to-mouth resuscitation) is an even stronger indication for prophylaxis.

The EHC, as well as ICHE, should be notified immediately of possible exposure to meningococcal infection so that prophylaxis may be initiated as soon as possible if it is determined by ICHE that exposure has occurred.

The following regimens are recommended for chemoprophylaxis and should be given as soon as possible after exposure (within 24-48 hours):

CHILDREN:

- *Rifampin*
 - < 1 month *5 mg/kg PO q 12h x 2 days*
 - ≥ 1 month *10 mg/kg PO q 12h x 2 days (600 mg maximum)*

ADULTS:

- *Ciprofloxacin* *500 mg PO x 1*

PREGNANT WOMEN:

- *Ceftriaxone*
 - < 15 years..... *125mg IM x 1*
 - ≥ 15 years..... *250mg IM x 1*

Healthcare Epidemiology should be notified immediately of possible exposure to meningococcal infection. ICHE will then notify Employee Health Staff of the exposed employees. Employee Health will initiate evaluation and prophylaxis.

Meningococcal Disease

PERSONS ALLERGIC TO CIPROFLOXACIN OR WHO CANNOT OTHERWISE TOLERATE CIPROFLOXACIN:

- Rifampin 600mg PO q 12h x 2 days
- Women taking oral contraceptives should use an alternative method of birth control ideally, a combination of barrier and spermicide until one week after the last dose of rifampin.
- Persons receiving chemoprophylaxis for exposure should be cautioned to seek immediate medical attention if fever, headache or stiff neck or any other signs or symptoms consistent with meningococcal disease develop.
- Medical Technologists and Medical Technicians who work in the Bacteriology Section of the Clinical Microbiology Laboratory will be offered

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meningococcal vaccine at employment and during employment as indicated.

- Give one dose to microbiologists who are routinely exposed to isolates of *N.meningitidis* and boost every 5 years if risk continues. Give MCV4 IM; if necessary to use MPSV4, give SC.
- Since the meningococcal vaccines do not provide protection against serogroup B meningococcal infection and the serogroup will not be known at the time of exposure, all exposees will need to be offered antibiotic prophylaxis as soon as possible after exposure but no later than 24 hours after exposure.

Syphilis Exposure

- Any employee, who has had direct contact (due to cuts or other breaks in his/her skin) with skin or mucous membrane lesions or the blood of a patient who has primary or secondary syphilis, should have a treponemal test for syphilis drawn and be given the following prophylaxis: 2.4 million units of benzathine penicillin G (Bicillin) IM.
- Employees who are penicillin allergic should be treated with doxycycline 100 mg po bid for 14 days, tetracycline 500 mg, po qid for 15 days or Azithromycin 2g po x1. (*Pregnant women should not receive tetracycline.*)
- Employees who have had direct contact should contact ICHE and report to the Employee Health Clinic for evaluation and treatment.

Varicella Exposure

See policy: 01.34 Varicella-Zoster Virus Infection Control Program.

Pertussis Exposure

See policy: 01.45 Pertussis Infection Control Program

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APPENDIX A

Vaccine & TB Evaluation Roadmap for HCWs Working in Clinical Areas

Vaccine	Influenza	MMR OB/Pedi OR/Day	Varicella (If non disease)	Tdap	Hep B (or sign disclosure)	Menin- gococcal	TB Eval
RN/LVN	✓	✓	✓	✓	✓		✓
PCT/OSA/PSS	✓	✓	✓	✓	✓		✓
HUC	✓	✓	✓	✓	✓		✓
MD	✓	✓	✓	✓	✓		✓
PT/OT	✓	✓	✓	✓	✓		✓
RT	✓	✓	✓	✓	✓		✓
Department Tech*	✓	✓	✓	✓	✓		✓
Micro Med Tech	X	X	X	X	✓	✓	✓

*Technicians include anyone who provides a service to a patient in the patient's exam room or on the unit (i.e. EKG Tech/Pharmacy Tech/EEG Tech)

X	=	Recommended
✓	=	Required

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APPENDIX B (from Policy 01.21 – Tuberculosis (TB) Control Program)

Tuberculosis (TB) Screening and Treatment Algorithm for New Hires, and after Exposure Among Employees

