Bloodbourne Pathogens (BBP) – Occupational Post-Exposure Chemophrophylaxis

Audience: All personnel in the Sleep Disorder Center.

Purpose: The purpose of this document is to establish UTMB policy for the initiation of prophylaxis after occupational exposure to the human immunodeficiency virus (HIV) and hepatitis B virus (HBV) and early treatment of infection with the hepatitis C virus (at time of seroconversion) to prevent chronic infection. This policy has been developed from the most current medical literature, clinical experience at UTMB and the September 30, 2005 recommendations from the Centers for Disease Control and Prevention (CDC). This prophylaxis protocol and regimen will be continuously updated with the most recent medical information.

Policy:

Occupational Exposures to Bloodborne Pathogens

For ALL occupational exposures to bloodborne pathogens:

- Wash the area immediately with soap and water
- For exposure to eyes, mouth or nose, flush the area with water for 20 minutes.
- Notify supervisor immediately.
- Call Employee Health Center/ Student Wellness for information regarding blood and/or body fluid management.
    - For employees: Call the Employee Health Center by dialing (409) 747-9172 Monday through Friday 8:00 AM to 4:30 PM
    - After hours, weekends, and holidays – the Access Center Hotline is staffed 24-hours a day, 7 days a week. Contact the Access Center by dialing (800) 917-8906 or (409) 772-2222. Employees/students with off campus exposure shall notify Employee Health/Student Wellness as soon as possible even when treatment initiated elsewhere.

An occupational exposure requiring the initiation of prophylaxis is defined as:

- Percutaneous injury (e.g. needlestick, laceration with a sharp object) with blood or other potentially infectious fluid
- Contact of mucous membranes or ocular membranes with blood or other potentially infectious fluid

- Contact of non-intact skin (e.g. skin that is chapped, abraded) with blood or other potentially infectious fluid

An occupational exposure requiring monitoring is defined as:

- Percutaneous injury (e.g. needlestick, laceration with a sharp object).
- Contact of mucous membranes or ocular membranes with blood or other potentially infectious fluid.
- Contact of non-intact skin (e.g. skin that is chapped, abraded) with blood or other potentially infectious fluid.
- Contact with intact skin that is prolonged or involves an extensive area with blood or other potentially infectious fluid.

Occupational Exposure Monitoring

All UTMB employees and students with a documented occupational exposure shall have the exposure evaluated and documented by a healthcare provider following the standard protocol. The healthcare provider shall:

- Recommend prophylaxis for percutaneous exposures, contact of mucous membranes or non-intact skin with blood or other potentially infectious fluid (semen; vaginal secretions; and cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids; bloody body fluids and unfixed tissue).
- Refer other exposures to the Employee Health Center at UTMB for enrollment in the occupational monitoring program.

Prophylaxis

Prophylaxis shall be recommended to all UTMB employees or students for percutaneous exposures or contact of mucous membranes or non-intact skin with blood or other potentially infectious fluid (semen; vaginal secretions; and cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids; bloody body fluids and unfixed tissue):

HIV

- Ideally within two hours after exposures, but may be initiated up to 96 hours after exposure.
- With appropriate drug therapy.

- Until the source-patient blood has been obtained and analyzed. If the source-patient HIV status is determined to be negative, prophylaxis will be discontinued.

HBV

- Prophylaxis for HBV prevention will be evaluated on an individual basis.

HCV

- Employees/students testing positive for Hepatitis C Qualitative RNA (PCR) at 6 weeks, 3 months or 6 months, will be referred immediately to a hepatologist for early treatment to prevent chronic hepatitis C infection.

Post-Exposure Procedure

I. MANAGE THE EXPOSURE

A. Wash the area immediately with soap and water.

B. For exposure to eyes, mouth, and/or nose flush area with water.

II. NOTIFY SUPERVISOR/FACULTY IMMEDIATELY

A. Supervisors will assist in obtaining source consent and lab work.

B. Supervisors & faculty shall release the employee or student from their duties immediately to seek post-exposure care.

III. PROCEDURE FOR SOURCE TESTING

A. Obtain source consent & lab specimen.

B. Use Physician Order Entry (POE) for HIV consent for alert and oriented patients.

C. General consent for comatose/general anesthesia patients will suffice but needs to be documented on Lab Requisition (form MM 68693).

D. Refusals should be documented on Lab Requisition (form MM 68693). Notify UTMB Legal 24 hours/day. The Legal Department will make the decision on how source blood will be obtained. (Contact Legal by calling the hospital operator).

E. Complete Lab Requisition (form MM 68693).

- Employees who are off campus can contact employee health and they will fax a completed lab slip to put in the bag with the specimens.

F. Assure consent status is documented on form.

G. Obtain one (1) serum separator tube.

H. Label tube

I. Document exposure in source's medical record and that labs were drawn for "source of occupational exposure".

J. Send blood to Laboratory Medicine, Sample Management, Rm. 5.136, McCullough Building.

K. Laboratory results for personnel will be sent to Employee Health/Student Wellness for follow-up. Source laboratory results will be placed in the source's medical record when consent is granted, or when general consent is invoked. If source refuses testing, results will be sent to Employee Health/Student Wellness.

IV. EMPLOYEE/STUDENT POST EXPOSURE CARE

A. Monday through Friday 7:30 AM to 4:30 PM go immediately to the Employee Health Center. Students are seen in Student Wellness 8AM to 5PM.

B. Holidays, weekends, or after hours – Go to the Emergency Department immediately.

1. Triage to ensure initiation of prophylaxis within 2 hours of exposure (percutaneous injury or contamination of mucous membranes or nonintact skin with blood, body fluids visibly contaminated with blood, unfixed tissue, semen, vaginal secretions, and cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids).

2. Obtain consent for HIV through Physician Order Entry (POE).

3. Submit Employee/Student specimens using form MM 68693 – two serum separator tubes labeled appropriately.

a. Order labs for exposed individual [HIV-1/HIV-2 antibody, HCV antibody and HBA]. HBS should be ordered for employees/students who have never received vaccine or who have a history of HBV immunization prior to coming to UTMB.

b. Additional lab if Employee/Student is starting prophylaxis – CBC (use additional lavender top tube for CBC), ALT, AST, total bilirubin, GGT, Creatinine and BUN. Females must have a urine or serum pregnancy test.

c. Assure consent for testing is documented.

d. Send specimens to Sample Management, Room 5.136 McCullough.

4. Post-exposure Treatment

a. Offer tetanus/diphtheria booster following percutaneous injury if none within last 10 years.

b. Offer HBV vaccine if source is known to be positive for hepatitis B or is high risk for hepatitis B and employee/student has not been vaccinated against hepatitis B.

c. Offer Hepatitis B Immune Globulin 0.06 ml/kg IM if source is known to be positive for hepatitis B or is high risk and employee/student has not been vaccinated against hepatitis B.

d. Employees/students testing positive for Hepatitis C Qualitative RNA (PCR) at 6 weeks, 3 months or 6 months, will be referred immediately to a hepatologist.

e. Recommend HIV prophylaxis following percutaneous injury or contamination of mucous membranes or nonintact skin with blood, body fluids visibly contaminated with blood, unfixed tissue, semen, vaginal secretions, and cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids (goal is to begin within 2 hours of exposure).

f. See Appendix A for warnings on drug interactions.

g. Prophylaxis medications – write "***UTMB Occupational Exposure***" on prescription

1) Fos-amprenavir (Lexiva 700mg tab), 2 tablets by mouth with food every 12 hours for 4 weeks.

2) Emtricitabine (Emtriva 200mg cap), one capsule by mouth every 24 hours for 4 weeks.

3) Tenofovir (Viread 300 mg tab), one tablet by mouth every 24 hours for 4 weeks.

4) Provide with 72-96 hour supply of medication.

5) Assure Consent for Post-Exposure Prophylaxis is completed.

h. Employee/Student is Pregnant – For pregnant women, prophylaxis should be reserved for those with HIGH RISK

exposures, and tenofovir (Viread) should not be used. In this case, an alternate regimen should be used:

1) Combivir (300 mg [AZT] and 150 mg lamivudine [Epivir], in fixed dose combination cap), one capsule by mouth with food every 12 hours and for 4 weeks.

2) Kaletra (lopinavir/ritonavir 200/50mg tabs), 2 tablets by mouth with or without food every 12 hours for 4 weeks.

3) Provide with 72 – 96 hour supply of medication.

4) Assure Consent for Post-Exposure Prophylaxis is completed.

5) Pregnant employees/students will be followed up by Employee Health/Student Wellness and will be referred to the Maternal/Child Clinic (409)772-2798.

V. OFF-CAMPUS EXPOSURE OF UTMB EMPLOYEES/STUDENTS

After hours, weekends, and holidays – call the Access Center (1-800-917-8906). Employees/students with off campus exposure shall notify Employee Health/Student Wellness as soon as possible even when treatment initiated elsewhere.

VI. EMPLOYER NOTIFICATION

Any employee claiming a work-related exposure to HIV infection must provide the employer with the BBP Notification Form and document that within 10 days after the date of the exposure, the employee had a test result indicating absence of HIV, HBV, or HCV infection. (Texas Vernon's Civil Statute, Health & Safety Code Section 85.116 (c) for the purpose of qualifying for workers' compensation or any other similar benefits or compensation.

References: Policy 01.2 Bloodborne Pathogens (BBP) - Occupational Post-Exposure Prophylaxis

CDC. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for Postexposure Prophylaxis. MMWR 2001; 50 (No. RR-11):1-53.

CDC. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for Postexposure Prophylaxis. MMWR 2005; 54 (No. RR-9):1-13.

Jaeckel E, Cornberg M, Wedemeyer H, et al. Treatment of acute hepatitis C with interferon alfa-2b. N Engl J Med 2001; 345:1452-7.

Panel on Antiretroviral Guidelines for Adults and Adolescents. Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents. Department of Health and Human Services. January 29, 2008; 1-128. Available at

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