POST-EXPOSURE EVALUATION AND FOLLOW-UP

Hepatitis B Vaccination:

At Southeast Health, we recognize that even with adherence to all exposure prevention practices, exposure incidents may occur. Therefore, we have implemented a Hepatitis B Vaccination Program, as well as set up procedures for post-exposure evaluation and follow-up should exposure to bloodborne pathogens occur.

VACCINATION PROGRAM

To protect employees as much as possible from the possibility of hepatitis B infection, Southeast Health has implemented a vaccination program that is available, at no cost, to all employees and volunteers who may have occupational exposure to bloodborne pathogens.

The program consists of a series of three inoculations over a six-month period. As part of our employee health program, employees receive information regarding hepatitis vaccination, its safety, and effectiveness. Employee health is responsible for setting up, operating, and tracking the vaccination program that has been in effect since 1985. Vaccinations are performed under the supervision of Occupational Medicine Monday through Friday, 7:30 a.m. to 4:30 p.m.

To ensure healthcare workers (HCW) and volunteers are aware of the program, it is discussed in the bloodborne pathogens' initial training and during annual safety review.

A list of job descriptions of those persons likely to have such exposure is available in this plan titled, "Exposure Determination." The vaccine is made available at the time of initial hiring, and if the HCW chooses not to take the vaccine at that point in time, it is made available upon request. Employees wishing to be vaccinated may call employee health at #986-4404 to make an appointment. Employees who decline to accept the hepatitis vaccination will be asked to sign a declination statement. For those who cannot make an appointment during the hours and days employee health is routinely open, special arrangements may be made with the employee health nurse. The Centers for Disease Control and Prevention (CDC) guidelines will be followed to determine follow-up testing and booster doses.

Information about hepatitis B, the vaccination, the declination and consent forms, and recommendations for getting the vaccine, are available from the Employee Health Department.

POST EXPOSURE EVALUATION AND FOLLOW-UP (BLOOD/BODY FLUID/NEEDLESTICK EXPOSURE)

Purpose: To assist the Health Care Worker in confidentially evaluating, prophylaxing/treating and implementing follow-up on all occupational exposures to blood and body fluids via needle sticks, other sharps injuries, mucous membranes or cutaneous contact.

Definition: **Occupational Exposure** - skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials (OPIM).

Procedure: Blood/Body Fluid/Needle stick Exposure:

- *Any Health Care Worker with a Blood/Body Fluid/Needle stick Exposure should wash the wound or exposed area thoroughly with soap and water. If splashed in the eyes, flush with copious amounts of water or saline.*

  COMMENT: This process will help to physically remove contaminants and thus reduce the bioburden.

- *Notify your supervisor or manager.*

  COMMENT: Occupational exposures are urgent medical concerns and require timely post-exposure management and administration of treatment. If your supervisor or manager is not immediately available, notify Employee Health or the Nursing House Supervisor for assistance. Your supervisor or manager will investigate the incident in a timely manner and evaluate immediate steps to prevent further incidents, where possible. REPORT YOUR INJURY IMMEDIATELY.

- *Identify source patient when possible (write down name, unit number, location). Provide this information to employee health.*

  COMMENT: This will assist the Employee Health Nurse to perform an accurate risk assessment and to expedite HIV/HBV/HCV testing of the source patient.

- *Notify Employee Health/Occupational Medicine (986-4404) or if after hours, report to the Emergency Department*

  For employee Health and Emergency Department use only:
  - Obtain source testing as directed by Employee Health/Emergency Room
  - Order "Needle 2 Source" STAT (this includes HIV rapid test, Hep c, Hep B surface antigen)
  - Obtain baseline testing/counseling for employee
  - Order "Needle stick #2" (*Dr. Marsh as the ordering physician)* this includes HIV-1/HIV-2, Hep C, Hep B Surface Antigen, Hep B surface Antibody (all by EIA method)
  - Evaluate risk for Post Exposure Prophylaxis using PEP Line 1-888-448-4911
  - Refer to Antiretroviral Post-Exposure Prophylaxis Therapy for formulary
  - Instruct Employee to follow-up with Employee Health for test result

  The HIV results should be completed ASAP. HepB and C are not run STAT.

  Please instruct Health Care Provider to check with Employee Health Nurse in a couple of days for these results.

- *Fill out Quantros Event/Occurrence*

  COMMENT:

  To access Quantros Event/Occurrence Reporting:
  - Go to Southeast Health Intranet
  - Links
  - Quantros
  - Choose Employee (for any HCW regardless of employment status)

ADDITIONAL TREATMENT: When source is positive or highly suspected to have Hepatitis B, Consider giving HBIG to exposed employee per table:

HEPATITIS B GUIDELINES

Exposed Person	HBsAg+ (source)	HBsAg- (source)	Source Tested or Unknown
Unvaccinated	HBIG x1* and initiate Hep B vaccine**	Initiated Hep B vaccine**	Initiated Hep B vaccine**
Incomplete vaccine series	HBIG x1* and complete Hep B vaccine series as scheduled**	Complete Hep B vaccine series as scheduled**	Complete Hep B vaccine series as scheduled**
Previously vaccinated Known Responder	Test exposed for anti-HepBs unless tested within past 24 months. If inadequate,***Hep B vaccine booster dose** If adequate, no treatment	No treatment	No treatment
Known NonResponder	HBIG x2* (immediately and 1 month later) OR HBIG x1* plus 1 dose of Hep B vaccine**	No treatment	If known high risk source, may treat as if source were HBsAg+
Response Unknown	Test exposed for anti-HBs unless tested within past 24 months. If inadequate***, GBIG x1* plus Hep B vaccine booster dose** If adequate, no treatment	No treatment	Test exposed for anti-HBs unless tested within past 24 months. If inadequate*** Hep B vaccine booster dose** If adequate, no treatment

*HBIG dose 0.06ml/kg preferably within 24 hours of exposure, can be given up to 7 days
**HepB vaccine dose IM at different site from HBIG site, first dose within 7 days
***Adequate anti-HBs is ≥10 mIU/ml, approx. equivalent to 10 SRU by RIA or positive by EIA

1. When source is positive or highly suspected to have Hepatitis C (acute or carrier state), No prophylaxis is recommended by CDC

Counsel employee to use blood/body fluid precautions at home and at work, (i.e., do not share toothbrushes, razors; use condoms, etc.) until follow-up is completed. Need to report any febrile illness, rash, myalgia, fatigue, malaise, or lymphadenopathy, especially within first 6-12 weeks.

2. Ask employee to notify the Employee Health Nurse for results of Lab and for remaining follow-up.

Any questions about this procedure may be directed to:
Employee Health Nurse, at #986-4404 or # 278-8809.
Infection Preventionist, by calling #6655, #651-5548, or beeper 278-8682.

If a Health Care Worker (HCW) is involved in an incident where exposure to bloodborne pathogens may have occurred, there are two items we immediately focus our efforts on:

- Investigating the circumstances surrounding the exposure; and
- Making sure the HCW receives medical consultation and treatment (if required) as expeditiously as possible.

Employee Health investigates exposure incidents after the incident occurs. This may involve gathering the following information:

- When the incident occurred: Date and time.
- Where the incident occurred: Location within the facility.
- What potentially infectious materials were involved in the incident: blood, amniotic fluid, etc.
- Source of the material.
- Under what circumstances the incident occurred: What type of work was being performed.
- If injury was a device-related injury, include type of device (providing brand name) involved in the injury and if the device had any engineered safety controls.
- How the incident was caused: Accident, unusual circumstances (equipment malfunction, power outage, etc.).
- Personal protective equipment being used at the time of the incident.
- Actions taken as a result of the incident: Employee decontamination, cleanup, and notifications given.

After this information is gathered, it is evaluated and a written summary of the incident and its causes is prepared. Recommendations are made for avoiding similar incidents in the future.

STEPS IN THE POST EXPOSURE PROCESS INCLUDE:

1. The source individual's blood is tested to determine HBV, HCV, and HIV infectivity. The rapid HIV results are to be treated as critical and called to employee health by lab personal. This information will also be made available to the exposed HCW. At that time, the HCW will be made aware of any applicable laws and regulations concerning disclosure of the identity and infectious status of a source individual.
2. The exposed HCW"s blood is tested for HBV, HCV, Hepatitis B Titer, and HIV.
3. A decision on Post exposure prophylaxis for the exposed HCW is made by the treating physician and follow-up is arranged with Employee Health to discuss the exposed HCW"s medical status and any further recommended treatments. Acknowledging the increasingly complex factors involved in PEP for HIV, the Centers for Disease Control and Prevention is advising clinicians to call for expert consultations before administering the potentially toxic PEP drugs. **The Post-Exposure Prophylaxis Hotline is—PEP line or 888-448-4911 as listed on page 16 of this document.**

INFORMATION PROVIDED TO THE HEALTHCARE WORKER

A copy of the Bloodborne Pathogens Standard is available in the Infection Control, Employee Health/Occupational Medicine Office, in each department, on the SoutheastHEALTH intranet site and can be provided at the HCW"s request.

MEDICAL RECORD KEEPING

To ensure that we have as much medical information available to the physician as possible, Southeast Health maintains comprehensive medical records on its employees.
As with all private healthcare information, Southeast Health recognizes the importance of keeping these medical records confidential. Without the HCW"s written consent, no disclosure or report of this information will be given to anyone.

Post Exposure Prophylaxis Resources and Registries:

Resource or Registry	Contact Information
The National Clinicians' Post-exposure Prophylaxis Hotline	**Telephone**: (888) 448-4911 **Internet**:http://www.nccc.ucsf.edu
HIV Post exposure Prophylaxis	**Telephone**: (888) 737-4448 (888) PEP4HIV **Address:** 1410 Commonwealth Dr. Suite 215 Wilmington, NC 28405
Antiretroviral Pregnancy Registry	**Telephone**: (800) 258-4263 **Fax:** (800) 800-1052 **Address:** The Antiretroviral Pregnancy Registry Research Park 1011 Ashes Drive Wilmington, NC 28405
Food and Drug Administration (for reporting unusual or severe toxicity to antiretroviral	**Telephone**: (800) 322-1088 **Address:** MedWatch HF-2, FDA 5600 Fishers Lane Rockville, MD 20857 Internet:<http//www.fda.gov/medwatch>
Reporting to CDC: Occupationally acquired HIV Infections and failure of PEP.	**Telephone**: (800) 893-0485
HIV/AIDS Treatment Information Service.	**Internet**: http://aidsinfo.nih.gov **AIDSinfoWeb site** http://AIDSinfo.nih.gov.

SoutheastHEALTH HIV Post-Exposure Prophylaxis Formulary

Dual NRTE's (Nucleoside/tide Reverse Transcriptase Inhibitors) Available

Truvada (Emtricitabine/Tenofovir)

Preferred over Combivir

4. Emtricitabine 200mg and Tenofovir 300mg per tablet
5. Dose: One table by mouth once daily
6. Possible side effects: stomach upset, diarrhea, vomiting, rash, darkening of hands/or feet, neuropathy, bone disorders, (especially those already at risk), renal dysfunction, fatigue, dizziness, headache, or cough
7. May consider calcium and vitamin D supplementation in those patients at increased risk or with a history of osteopenia/osteoporosis
8. U.S. Boxed Warning: Lactic Acidosis can occur with this medication (see monitoring)
9. Pregnancy Category B

Combivir (Lamivudine-3TC)

1. Zidovudine 300mg and lamivudine 150mg per table
2. Dose: One table by mouth twice daily
3. Possible side effects: stomach upset, diarrhea, vomiting, rash, headache, fatigue, anemia, or myalgia
4. Pregnancy Category C

Protease Inhibitors Available (PI)

Reyataz (Atazanavir boosted with Ritonavir); Norvir (Ritonavir) **USE THESE TOGETHER**

1. Atazanavir 300mg tablet PLUS Ritonavir 100mg tablet
2. Dose: One table of each given by mouth once daily
3. Ritonavir inhibits the Cytochrome P450 3A4 metabolism of atazanavir, thus increasing the blood levels of atazanavir and increasing its effectiveness
4. Atazanavir must be taken with food to achieve full absorption
5. Storage: Ritonavir must be refrigerated or used within 30 days if stored at room temperature. Must be kept in original container
6. Possible side effects: Stomach upset, diarrhea, vomiting, rash, hyperbilirubinemia, or elevated transaminases
7. Pregnancy Category B

MONITORING (at baseline & 2 weeks or per physician discretion)

1. CBC with differential (q 2 weeks if on Combivir)
2. BUN and Serum Creatinine
3. Liver Function test (LFT's)
4. Bilirubin (D/C if >5x ULN)
5. Blood glucose
6. Blood lactate levels and monitor for signs and symptoms of lactic acidosis (if on Truvada)
7. Bone Mineral Density (if on Truvada and has history of or increased risk of osteoporosis)