PLAN:

The risk of exposure to a blood borne pathogen can be greatly reduced through the strict adherence to the administrative, engineering, and work practice controls included in this plan.

A. General Information

1. Occupational Safety and Health Administration (OSHA) regulations require that the employer provide a written Exposure Control Plan (ECP) that covers the facility's policies and procedures to prevent transmission of a blood borne pathogen in the workplace. Employees of Pikeville Medical Center (PMC) may have duties in more than one area of our organization; therefore, this exposure control plan is designed for all employees of the PMC.
2. PMC Healthcare employees receive services through the Employee Health Department.
3. Contract personnel also comply with this Exposure Control Plan. It is their employer's responsibility to provide basic blood borne pathogen training and occupational health services consistent with the requirements of this document. Contract employees with blood or body fluid exposures should contact their employer and follow their employers' recommendations for care.
4. PMC employees may obtain a copy of the Exposure Control Plan via the Hospital Intranet www1/ website or by contacting Infection Control or Employee Health. The OSHA document, Occupational Exposure to Blood borne Pathogens; Final Rule, is available on OSHA's website (www.osha.gov).

B. Responsibility

1. Infection Control and Employee Health
   a. Review Exposure Control Plan and revise as needed.
   b. Identify list of job classifications with occupational exposure.
   c. Provide ongoing consultation regarding implementation of OSHA's final rule on Occupational Exposure to Blood borne Pathogens.
   d. Develop and coordinate educational programs.
   e. Assist with compliance evaluation. (See Appendix 5-2.)
   f. Assist with the selection and evaluation of current safety devices. (See Appendix 10.)

2. PMC Employee Health.
   a. Review and continue to implement Hepatitis B Immunization Program.
   b. Maintain records regarding Hepatitis B Vaccination Program.
   c. Review and continue post-exposure follow-up.
   d. Maintain documentation of exposure and follow-up as required by the OSHA final rule.
   e. Sharp /exposure log for all PMC employees is maintained in Employee Health.

3. Department Managers and Supervisors
   a. Annually review list of all job classifications and identify job classifications in which employees in those positions have reasonably anticipated occupational exposure.
   b. Ensure and document employee orientation and annual training.
   c. Ensure personal protective equipment and other necessary supplies are available in accessible locations.
   d. Evaluate compliance, include compliance with OSHA's final rule into the employee's performance evaluation.
   e. Initiate and document disciplinary action for continued non-compliance.

f. Ensure that appropriate safety devices are stocked in their departments and staff have been trained in their use.
g. Evaluate the circumstances surrounding exposure incidents including an evaluation of "failures of control" at the time of the exposure incident and submit this information to Employee Health Department.

4. Materials Management/Safety/Employee Health and Infection Control.
   a. Oversee the selection and evaluation of safety devices.
5. Oversight Committee
   a. Hospital Infection Control Committee
      i. The Hospital Infection Control Committee will serve as the Oversight Committee for the review /revision of the Exposure Control Plan for blood borne Pathogens.
6. Occupationally-Exposed Employees
   a. Know what tasks they perform that cause occupational exposure.
   b. Participate in the annual Health and Safety training.
   c. Plan and conduct operations in accordance with the Hospitals' engineering controls, work practice controls, and the use of PPE.
   d. Employees who sustain an exposure incident reports the incident to their supervisor and follow up with Employee Health.
   e. Participate in the selection and evaluation of safer medical devices where applicable.

C. Methods of Compliance

The use of administrative controls (e.g., Standard Precautions), engineering controls, work practice controls and personal protective equipment (PPE) helps protect employees who have occupational exposure to blood or other potentially infectious materials (OPIM). Standard Precautions (SP) refers to practicing blood and body fluid precautions for all patients. SP shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Engineering and work practice controls are used to eliminate or minimize employee exposure to blood borne pathogens or OPIM. Where occupational exposure remains after institution of these controls, personal protective equipment is also used.

1. Engineering and Work Practice Controls

One of the key aspects of the Exposure Control Plan is the required use of engineering controls as a primary means to eliminate or minimize employee exposure to blood borne pathogens. As a result, PMC employs equipment such as sharps disposal containers, needleless IV systems, self-sheathing needles and ventilated laboratory hoods as appropriate.

The Infection Control Committee, Safety Committee, and Employee Health work with department managers and employees to review tasks and procedures performed at PMC where engineering controls can be implemented or updated. This is a dynamic and ongoing process that ensures the implementation of new engineering controls when identified as appropriate. Departmental managers are responsible for assessing their area's needs on a continuing basis. Once an engineering control has been institutionally introduced and employee training has occurred, the engineering control should be used unless there are medical reasons that would contraindicate its use.

Engineering controls are assessed routinely to ensure that each control is maintained, and that the device reflects changes in technology that eliminate or reduce exposure to blood borne pathogens. Documentation is maintained by the Purchasing Department to ensure consideration and implementation of appropriate commercially available and effective safer medical devices has occurred.

Work practice controls are followed to help eliminate or minimize employee exposure to blood borne pathogens. Oversight and implementation of work practice controls are performed by the department manager who works in conjunction with the Hospitals' infection prevention staff and safety personnel.

a. Hand hygiene products (e.g., antimicrobial soap, waterless alcohol-based hand rub (ABHR) containers and pocket-sized waterless alcohol-based hand rub) are readily accessible to all employees who have the potential for occupational exposure.

i. Wash hands and other skin surfaces with soap and water immediately or as soon as feasible if contaminated with blood or OPIM.
ii. Perform hand hygiene immediately or as soon as feasible after gloves or other personal protective equipment (PPE) is removed. Refer to Infection Control Checklist "Hand Hygiene"
iii. Personnel who have hand dermatitis or allergies associated with hand hygiene agents, gloves or other products are required to be evaluated by Employee Health.
iv. Personnel having exudative lesions or weeping dermatitis will be excluded from all direct patient care and from handling contaminated patient-care equipment until the condition resolves. Employee Health is to be consulted to evaluate and advise in this matter.
v. Only use hospital approved hand lotions these hand lotions have been proven to be compatible with the antimicrobial hand hygiene agent.

b. Following any contact of body areas with blood or OPIM

i. Wash your hands and any other exposed skin with an antimicrobial soap and water as soon as possible.
ii. If the exposure to blood or body fluids involves the eyes or other mucous membranes, flush the exposed mucous membranes with water. Eye wash stations are located in multiple areas of PMC and PMC Clinic areas. Employees should learn the location of the nearest eyewash station in their assigned work area.
iii. Showers are available if an employee encounters an extensive exposure to blood or OPIM.

c. Disposal of Sharps

1. Plan safe handling and disposal of sharps before beginning any procedure using sharps (e.g., needles).
    a. Dispose of sharps as close to the point of use as possible by the person using the sharp.
    b. Do not pass sharp instruments from hand to hand unless the specific procedure requires continuous focus. It is the responsibility of the surgeon(s) and scrub nurse/tech(s) to safely pass instruments.
    c. Sharp instruments should either be passed using a neutral zone or in a suitable container to decrease the possibility of injury from sharp, contaminated objects.
    d. Contaminated needles and other contaminated sharps are not sheared, bent, recapped, or removed unless it can be demonstrated that there is no feasible

alternative or the action is required for a specific medical procedure. In these situations the recapping or needle removing is accomplished through a mechanical device or a one-handed technique. This can be accomplished by placing the cover (cap) on a flat surface and sliding the needle into it, using a hemostat to hold the cap or obtaining a commercial needle recapping device. Two-handed recapping of needles is prohibited. Contaminated phlebotomy needles and tube holders are not to be separated and are discarded as a unit. The tube holders are not to be reused.

e. After use, sharps (e.g., needles, scalpel blades, phlebotomy needles and tube holder, activated safety devices with needle/blade) are discarded immediately, or as soon as possible, by the user in containers that are closable, puncture resistant, and leak-proof on sides and bottom.

2. Sharps Containers
    a. Containers are labeled with a BIOHAZARD label.
    b. Containers for sharps are located as close as possible to the immediate area where sharps are used.
    c. To prevent needle-stick injuries, wall mounted sharps containers are affixed no higher than 4.5 feet from the floor so the opening may be observed for protruding sharp objects.
    d. The sharps containers are to be secured upright throughout use and be routinely replaced when ¾ full and not be allowed to overfill.
    e. The replacement of full sharps containers is a joint responsibility between Nursing and Environmental Services.
    f. When removing containers of sharps from the area of use, close and lock the container immediately prior to removal to prevent spillage or protrusion of contents during handling, storage, or transporting.
    g. Housekeeping staff will remove sealed boxes from the clinic areas.

d. Objects should not be retrieved from biohazard waste containers. Biohazard waste containers refer to not only sharps disposal containers but any trash bins lined with red biohazard labeled bags.

e. Reusable Instruments

i. Reusable instruments (e.g., large bore needles, scalpels, saws) and sharps that are contaminated with blood or OPIM are washed or rinsed to remove blood and proteinaceous material and then placed in the biohazard-labeled, leakproof, puncture resistant transport container with lid that is designated for Central Processing Department (CPD), these reusable instruments should be sprayed with enzyme solution or soaked in enzymatic soak solution that allows the instrument to remain moist until received in the (CPD).

1) When washing reusable instruments, wear appropriate PPE.

2) Sharps will be removed using tongs or forceps. The employee should not reach by hand into the container to remove contaminated sharps. If the sharps are in a basin covered with water, the solution should be drained from the basin before removing items with tongs.

f. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure to blood borne pathogens, (e.g., laboratories, treatment room).

g. Food and drink are not kept in refrigerators, freezers, shelves, cabinets, or on countertops or work bench tops or in other storage areas where blood or other potentially infectious materials are present.

h. Perform procedures involving blood or OPIM in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

i. Mouth pipetting/suctioning of blood or OPIM is prohibited.

j. Place specimens of blood or OPIM in a container that prevents leakage during collection, handling, processing, storage, transport, or shipping. If outside contamination of the primary container occurs, the primary container is to be decontaminated with an approved disinfectant prior to delivering to the lab. Place specimens in a specimen bag labeled with a BIOHAZARD label when being transported. Refer to the PMC Policy "Usage of the Computerized Tube System," for sending specimens to the lab in this manner. Specimens that leave the hospital must be labeled with a BIOHAZARD label.

k. Equipment known or suspected to be contaminated with blood or OPIM is examined prior to servicing or shipping and decontaminated as necessary, unless it can be demonstrated that decontamination is not feasible. Attach an appropriate biohazard warning label to any contaminated equipment, identifying the contaminated portions. Information regarding the contamination is conveyed to all affected employees, the equipment manufacturer and the equipment service representative prior to handling, servicing, or shipping. Appropriately clean items after maintenance and prior to patient use.

2. Personal Protective Equipment

Personal protective equipment (PPE) is used by employees to provide for protection against a hazard such as blood or OPIM. It is the employer's responsibility to provide PPE, and to clean, maintain, and/or dispose of it. Our employees receive training regarding the use of the appropriate personal protective equipment for their job classification and tasks/procedures they perform. Additional training is provided when necessary, such as with a change in position or job duties.

PPE consists of specialized clothing or equipment worn by the employee such as gloves, fluid-resistant gowns, masks, and protective eyewear. PPE is used when there is a potential for exposure to blood or other potentially infectious materials. PPE in appropriate sizes is available in the work area (e.g., Clean Utility Room, PPE carts or cabinets). Special arrangements can be made for unique needs (e.g., glove liners, hypoallergenic gloves) of staff members with their supervisors, after evaluation in Employee Health.

a. To minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags or other ventilation devices are strategically located throughout the hospital and clinics.

b. PPE is removed prior to leaving the work area. When PPE is removed, it is placed in an appropriately designated area for storage, washing, decontamination or disposal. Disposable PPE can be discarded in regular trash unless visible contaminated with blood or body fluid in which it is to be discarded in the trash bags displaying a BIOHAZARD label.

c. Reusable PPE (e.g., utility gloves) must be decontaminated (use an EPA-registered disinfectant detergent) prior to re-use if the integrity of the PPE is not compromised. However, if the PPE is cracked, peeling, torn,

punctured, or exhibits other signs of deterioration or when its ability to function as a barrier is compromised, discard the PPE.

d. Types of PPE

i. Gloves

1) Wear nitrile gloves when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, non-intact skin, when performing vascular access procedures, and when handling items or surfaces soiled with blood or OPIM. Employees with skin or systemic reactions to gloves or hand hygiene agents be evaluated by Employee Health.

2) Change disposable single-use gloves as soon as practical when contaminated, torn, punctured, or when their ability to function as a barrier is compromised.

3) Disposable single-use gloves are not to be washed or disinfected for reuse.

4) Change gloves after contact with each patient. Change gloves when performing procedures from one body site to another on the same patient if working from a “dirty” site to a “clean” site is unavoidable. Perform hand hygiene immediately after removing gloves.

5) Remove gloves and perform hand hygiene before touching clean environmental surfaces (e.g., computer keyboards and telephones).

6) Double gloving has been shown to reduce blood exposures during operative procedures, and therefore is recommended for all surgeons, scrub nurses, scrub techs, and any other personnel performing high-risk procedures or prolonged surgeries, and with handling of known hazardous drugs.

e. Masks, eye protection or face shields

i. Masks, eye protection or face shields are used whenever splash, spray, spatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated (e.g. emptying suction canisters, open suctioning of coughing patients, trauma procedures).

ii. Protective eyewear is worn when there is a reasonably anticipated potential for eye contamination.

iii. Prescription eyeglasses with solid side shields can be used for eye protection. Glasses without solid side shields or small-framed glasses are covered with a face shield or goggles to provide complete coverage and protection.

f. Gowns

i. Wear gowns, aprons or other protective body clothing whenever potential exposure of blood or body fluid is anticipated. Select appropriate protective clothing to prevent contamination of an employee’s skin or clothing by blood or other potentially infectious materials.

ii. If personal protective equipment (garment) is penetrated by blood or other potentially infectious materials, remove the garment immediately or as soon as possible and placed in the appropriate container for disposal, storage, washing, or decontamination. Remove the contaminated PPE in such a way as to avoid contact with the contaminated portions.

g. Contaminated Personal Clothing

i. Contaminated personal clothing is not taken home for laundering. Change into clean scrubs. Place personal clothing in a plastic garbage bag and label. Send to the housekeeping department for laundering.

h. Additional PPE (e.g., bonnets, hoods, shoe covers, boots) may be required in instances when gross contamination is reasonably anticipated (e.g., autopsies, trauma surgery, labor and delivery, and orthopedic surgery).

Housekeeping

Maintaining our facility in a clean and sanitary condition is an important part of the Blood borne Pathogen Plan. To facilitate this housekeeping department has a written schedule for cleaning and decontamination of the various areas of the facility. The schedule provides the following information:

a) The area to be cleaned/decontaminated.
b) Day and time of scheduled work.
c) Cleaners and disinfectants to be used.
d) Schedule for cleaning/decontaminating.
e) Who is responsible for cleaning each area.

Day and time of scheduled work: Example, All clinical areas will be cleaned daily.

Special instructions: Upon request, any area can be subject to additional cleaning as needed.

Using this schedule, our staff employs the following practices:

a) Equipment and surfaces are cleaned and decontaminated after contact with blood or other potentially infectious materials.
b) After the completion of medical procedures.
c) Immediately (or as soon as feasible) when surfaces are overtly contaminated (notify housekeeping when available).
d) After any spill of blood or infectious materials (notify housekeeping when available).
e) All pails, bins, cans and other receptacles intended for use routinely are inspected, cleaned and decontaminated as soon as possible if visibly contaminated (notify housekeeping when available).
f) Potentially contaminated broken glassware is picked up using mechanical means such as dustpan and brush, tongs, forceps, (notify housekeeping when available).
g) The Environmental Services Director is responsible for setting up and monitoring a cleaning schedule. Central Sterile Director is responsible for the decontamination schedule and processes.

3. Standard sterilization and disinfection procedures for patient care equipment are in place to sterilize or disinfect instruments, devices, or other items contaminated with blood or other potentially infectious materials. (Refer to policy, “Cleaning, Disinfection and Sterilization of Patient Care Items.”)

i. Decontaminate instruments or reusable devices that enter normally sterile tissue or the vascular system prior to use and are sterilized between patient uses.

ii. Clean devices or items that contact intact mucous membranes are either sterilized or receive high-level disinfection (a procedure that kills vegetative organisms and viruses but not necessarily large numbers of bacterial spores) between patient use.

iii. Thoroughly clean medical devices or instruments that require sterilization or disinfection before being exposed to the germicide. Follow the manufacturer's instructions for the use of the germicide. Further, it is important to follow the manufacturer's specifications for compatibility of the medical device with chemical germicides.

iv. An EPA-registered disinfectant detergent or a 1:10 dilution of bleach and water (expires in 30 days) is used to decontaminate non-critical devices or equipment (that has contact with intact skin) after blood or OPIM contamination. See product information for correct dry/kill times.

a. Clean equipment and environmental work surfaces after contact with blood or other potentially infectious materials. Clean contaminated work surfaces with an appropriate disinfectant after completion of procedures or after any spill of blood or OPIM; and at the end of the work shift if the surface may have become contaminated during the shift.

b. Blood and body fluid spills should be cleaned using a 1:10 dilution of bleach (sodium hypochlorite) or an EPA-registered hospital disinfectant, gloves are worn during the cleaning.

i. In patient-care areas visible material should be removed with disposable towels or other appropriate means that will ensure against direct contact with blood and then the area should be decontaminated.

ii. With large spills of cultured or concentrated infectious agents in the laboratory, the contaminated area should be flooded with a liquid germicide before cleaning, and then decontaminated again with the germicidal chemical.

c. Pick up broken glassware, razors or other sharp items that may be contaminated using mechanical means, such as a brush and dust pan, tongs or forceps, and the broken glass will be placed in a rigid container (e.g., sharps container) for disposal.

d. Regulated Medical Waste

i. Regulated medical waste is handled in accordance with federal, state, and local laws and PMC's policy

ii. While any item that has had contact with blood, exudates, or secretions may be potentially infective, it is not considered practical or necessary to treat all such waste as infective.

iii. The regulated medical waste at PMC and its clinical areas is placed into a red bag and treated in compliance with State regulations (e.g., incinerated).

iv. Clinic staff members or housekeeping is responsible for the closing and securing of medical waste containers. Housekeeping staff will remove sealed boxes from the clinic areas. The boxes will be transported to the loading dock area where they will be collected by the waste disposal contractor for transport to an incinerator.

v. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down clinical sink (not handwashing sink) /hopper connected to a sanitary sewer. Any fluid splashed onto surrounding surfaces (e.g., walls) will be removed immediately using an EPA-registered hospital disinfectant.

e. Laundry

i. Although soiled linen has been identified as a source of large numbers of certain pathogenic microorganisms, the risk of actual disease transmission is negligible. Hygienic and common sense storage and processing of clean and soiled linen are recommended.

ii. Contaminated laundry is handled as little as possible and with minimal agitation to prevent gross microbial contamination of the air and of persons handling the linen. Refer to the policy “Laundry and Linen Service” for details.

1) Bag soiled linen at the location where it was used.

2) Handle all used linen as contaminated laundry and treat all laundry bags as requiring compliance with standard Precautions.

3) Laundry is placed and transported in a fluid-resistant bag that prevents soak-through and/or leakage of fluids to the exterior. Wet laundry should be rolled so that the driest portions are on the outside before placing in the linen bag.

4) Soiled laundry is stored in a separate area than clean linens.

D. Employee Health Service

Even following good adherence to all of the exposure prevention practices, exposure incidents can occur.

1. Exposure Reporting

- Any HCP who has an exposure to blood or body fluids should take immediate action.

  Exposed Employee:

  1) Wash exposed skin and any puncture sites thoroughly washed with soap and water.

  2) Irrigate eyes with water at an eyewash for a reasonable amount of time.

  3) If the mouth is exposed rinse/flush with clean water.

- HCP should call ahead to their Employee Health Department to initiate the post-exposure evaluation immediately after injury. If Employee Health is not available, report to the House Supervisor. Do NOT report to the Emergency Department.
- Complete the red incident: Needle stick/Blood/Body Fluid Exposure form.
- Current protocols for HIV post-exposure prophylaxis necessitate immediate reporting of occupational exposures so that administration of antiretroviral prophylaxis can be promptly initiated when indicated. Employee Health procedure follows the current Centers for Disease Control (CDC) recommendations for antiretroviral prophylaxis.

b. Reporting an Exposure

- PMC employees including those working off site, are to report exposures to Employee Health during the regular office hours (Monday through Friday, 7:00 am- 4:00 pm) or the House Supervisor immediately after the exposure.
- Contract Personnel (e.g., Traveling Nurses) report the exposure to their employer and follow their employer's recommendations.
- Students Not Affiliated with PMC report the exposure to their clinical instructor/school. They will be referred to the Emergency Department.

c. Following an exposure incident

The following are steps to take following an exposure or possible exposure.

Employee

1. Report to the department director, Employee Health, or house manager.
   a. Medical Management of an Employee Blood or Body Fluid Exposure process is initiated by the department director, Employee Health or house supervisor. (Appendix #2).
   b. The red Exposure Form is completed by the exposed employee.
   c. **Employee** has baseline testing for determination of Hepatitis B, Hepatitis C, and HIV status.
2. If Hepatitis B antibody level is below the specified guidelines set by CDC for immunity **and the** source is Hepatitis B antigen positive. The Infection Control Committee Physician will be consulted for recommended HBIG dosing as indicated within 7 days of the exposure. The employee will be offered Hepatitis B booster or vaccination series as appropriate.
3. If Hepatitis C antibody is present, the employee will be notified and instructed to see their personal physician.
4. If HIV antibody is present, the employee will be notified and instructed to see their personal physician.

Source Patient

- If the source patient Hepatitis B, Hepatitis C, and HIV status is unknown, call the attending physician for notification and to obtain verbal order for testing, the written order should read, "Hepatitis B and Hepatitis C and HIV Status due to Health Care Provider exposure".
- Place order for Hepatitis B and C and HIV per EMR lab orders under Employee Health Source Screen SIM # 922.
  1) If the source patient is known HIV positive the Employee Health nurse or house supervisor will send the employee to an Infectious Disease Physician or the Emergency Department for evaluation.
     - The Post Exposure Prophylaxis (PEP) medications will be obtained from the PMC pharmacy.
     - The employee will need to sign consent for PEP medications.
     - Employee will be provided with enough medication to begin immediate dosing and will also be given instructions to report to the PMC pharmacy for a prescribed supply of medication.

- The employee, through the Employee Health Department, will be referred to an IC physician within 72 hours for continued therapy and expert evaluation.
- If the source patient is an unknown patient (e.g. needle in sharps disposal container or laundry), use of PEP to be decided on a case-by-case basis after consideration of severity of exposure and epidemiological likelihood of HIV exposure.

Employee Health

- Forward the red Employee Exposure form to Employee health.
- Employee Health nurse will notify the employee of their HIV, HBV and HCV status my mail or in person and the employee will be instructed regarding what they are to do (e.g., see physician, have Hepatitis B vaccine or Hepatitis B immunoglobulin) on the “Blood borne Pathogens Post-Exposure Evaluation Form” .
- Source’s results will also be given to exposed employee if available on “Blood borne Pathogens Post-Exposure Evaluation Form” by Employee Health nurse.

- The employee will be given orders for serial follow-up laboratory work. The employee will be responsible for getting these labs collected and will be notified by mail or in person of the results.
- Regardless of the test results of the source, the employee will be screened for HIV and HCV conversion at 6 weeks, 3 months and 6 month intervals.
- If the employee is HBsAB positive (immune) to Hepatitis B, no further testing will be completed.
- If the employee is HBsAB negative (not immune) to Hepatitis B, regardless of HBIG administration, the employee will be serially screened for HBsAG at time of exposure, then at 6 week, 3 month and 6 month intervals.
- HCP will also be provided with an Employee Health Written Opinion for Hepatitis B Vaccine within 15 days from the time of exposure.
- A sharps injury log is maintained by PMC Employee Health Service. The Sharps Injury Log includes information on the injury, including the type and brand of device involved in the incident, the department or work area where the exposure incident occurred, and an explanation of how the incident occurred. Medical records are kept confidential for all HCP.
- These records are kept in the PMC Employee Health file HCP medical records are kept for at least the duration of employment plus 30 years.

Management of Hepatitis B Virus

Definition of Exposure

Healthcare personnel will be defined as having been occupationally exposed to HBV under the following conditions: The source is HBsAg and/or HBeAg-positive AND one of following has occurred.

- HCP has suffered a percutaneous injury with a contaminated sharp
- HCP has had contact on a mucosal surface or abraded skin with contaminated blood or OPIM
- HCP has had parenteral exposure to or mucosal membrane contact with a contaminated body fluid. Such fluids include only semen, vaginal secretions, amniotic fluid, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, or saliva during a dental procedure. In addition, contact with any unfixed tissue or organ (other than intact skin) from a human (living or dead).
- Healthcare personnel have received a bite which breaks the skin.

Healthcare personnel will not be defined as having been occupationally exposed to HBV under the following conditions:

- The source is HBsAg negative even if the source is a member of a group at high risk of HBV infection.
- Inhalation or possible inhalation of microscopic blood or bloody fluids.
- Contact of intact skin with contaminated blood or bloody fluid.
- Percutaneous injury with a non-contaminated sharp.
- Parenteral exposure or mucous membrane contact with saliva (except during a dental procedure), urine, feces, or tears in which there is not visible blood.

Pre-Exposure Prophylaxis (Vaccination Program)

1. Hepatitis B vaccine is offered to all employees (unless contraindicated) who have been determined to have potential occupational exposure to blood, blood products, or body fluids that may contain blood. Immunity to Hepatitis B virus is strongly encouraged for all at risk employees. Hepatitis B immunization will be provided to at risk employees at no charge and within 10 working days of initial assignment. The vaccination program consists of a series of three inoculations over a six-month period. As part of their Blood borne Pathogens training, our employees have received information regarding Hepatitis B Vaccination, including its safety and effectiveness.

2. The Vaccination Program consists of a series of three inoculations over a six-month period. Standard immunization schedule will be followed: 0, 1, 6 months. Acceptable deviations from this schedule are as follows: 0, 1 month (minimum time 0.75 mo), 6 mo (minimum time 1.5 mo). Following the 3rd immunization, anti-HbsAg titer will be assessed 1-2 months after the last immunization.

3. Persons who lack protective antibody levels will be provided with two additional doses of hepatitis B vaccine. Following the second primary series, employees will again be tested for anti-HBsAg and HBsAg 1-2 months following the last vaccine dose (dose 6). Employees who have not developed an adequate antibody titer will be labeled NONRESPONDERS. In the event of an exposure to HBsAg positive blood, the employees who are non-responders will be provided HBIG within 24 hours and 1 month later.

4. Routine determination of anti-HBsAg titer is not recommended.

5. HBV vaccine will be provided to employees during Employee Health Office hours.

c. Post-Exposure Prophylaxis

i. Post-exposure prophylaxis will be offered (unless contraindicated) to all employees with an exposure as defined in this document. Post-exposure prophylaxis and follow-up will be provided to unvaccinated PMC first-aid responders who render assistance in any situation involving the presence of blood or OPIM. Post-exposure prophylaxis will depend on the infective status of the source (i.e., HBsAg positive), the immune status of the exposed person (i.e., anti-HBs), and vaccination status of the exposed person. Post-exposure prophylaxis may include HBIG and/or additional doses of hepatitis B vaccine.

ii. After a blood borne pathogen exposure (e.g., needlestick), the HBsAg status of the source will be assessed. If the source is HBsAg positive and the employee is not known to be immune (previous lab evidence of anti-HBsAg < 10 mIU/mL), then the employee's anti-HBsAg status will be assessed on a STAT basis. If low (<10mIU/mL), then a single booster dose of hepatitis B vaccine will be provided and the titer assessed 1-6 months post-immunization. If the titer remains low, consult Infectious Disease Medical Director. If the source is HBsAg positive and the employee is a known nonresponder then HBIG X 2 will be provided (doses 1 month apart).

iii. The efficacy of two doses of HBIG, one given immediately after percutaneous exposure and one given 1 month later is about 75%. Immune globulin alone has no role in prophylaxis against hepatitis B.

iv. Unvaccinated employees will receive PEP per current CDC recommendations.

d. Evaluation of Employees with Acute Hepatitis B Infection

i. All employees with symptoms and/or signs of acute hepatitis will be tested for acute hepatitis B infection. The following serologies will be drawn: HBsAg, anti-HBsAg, and anti-HBc (HbeAg may also be ordered). Additional studies for hepatitis A, C, and/or D, may be performed. Persons with acute hepatitis B will also have blood drawn to test serum glucose, bilirubin, PT, and electrolytes. If the infection resulted from occupational exposure, primary care will be provided by the Employee Health Department. If the infection did not result from occupational exposure, the employee will be referred to their primary care provider for medical care. Referral to a gastroenterologist may also be suggested. Employees with acute hepatitis B infection will be sent home on sick leave during the acute infection (jaundice). All such employees will be counseled regarding the need for precautions to prevent home or hospital transmission of infection. Every effort will be made to document whether infection resulted from nosocomial exposure. Cases are reported to the Kentucky State Health Department, as per KY 902 State regulation. Employees returning to work employees who have had acute infection, receive medical clearance. Employees will be followed for at least one year to determine if they have developed chronic hepatitis B infection. Serologic testing (HBsAg, anti-HBsAg, anti-HBc) will be performed at the following times until the individual is determined to be noninfectious: 0, 1 month, 3 months, and 6 months. All employees still infectious at 1 year, regardless of symptoms, will be referred to Infectious Disease for evaluation.

3. Management of Hepatitis C Virus

a. Definition of Exposure

i. Healthcare personnel will be defined as having been occupationally exposed to HCV under the following conditions: The source is anti-HCV positive AND one of the following has occurred.

1) HCP has suffered a percutaneous injury with a contaminated sharp.

2) HCP has had contact on a mucosal surface or abraded skin with contaminated blood or a bloody body fluid.

3) HCP has had parenteral exposure to or mucosal membrane contact with a contaminated body fluid. Such fluids include only semen, vaginal secretions, amniotic fluid, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, or saliva during a dental procedure. In addition, contact with any unfixed tissue or organ (other than intact skin) from a human (living or dead).

4) HCP has received a bite that breaks the skin.

ii. Healthcare personnel will not be defined as having been occupationally exposed to HCV under the following conditions:

1) The source is anti-HCV negative even if the source is a member of a group at high risk of HCV infection.

2) Inhalation or possible inhalation of microscopic blood or bloody fluids.

3) Contact of intact skin with contaminated blood or a bloody fluid.

4) Percutaneous injury with a non-contaminated sharp.

5) Parenteral exposure or mucous membrane contact with saliva, urine, feces, or tears in which there is no visible blood.

b. Pre-Exposure Prophylaxis

i. None Available

c. Post-Exposure Prophylaxis

i. None Available

1) Persons with HCV exposure will have a baseline anti-HCV (EIA) and ALT repeated in 6 months and a HCV RNA drawn at 4-6 weeks. If positive, they will be referred to a gastroenterologist or infectious disease specialist with expertise in HCV treatment.

d. Evaluation of Employees with Acute Hepatitis C Infection

i. All employees with symptoms and/or signs of acute hepatitis will be tested for acute hepatitis C infection. The following serologies will be drawn: Anti-HAV IgM, anti-HAV IgG, HBsAg, anti-HBs, anti-HBc and anti-HCV (EIA). Additional tests will include: ALT, AST, Bilirubin (direct and indirect), glucose and PT. Additional studies for hepatitis viruses may be performed. Persons with acute hepatitis C will also have blood drawn to test serum glucose, bilirubin, PT, and electrolytes. If the infection resulted from occupational exposure, primary care will be provided by the Employee Health Department. If the infection did not result from occupational exposure, the employee will be referred to their primary care provider for medical care. Referral to a gastroenterologist may also be suggested. Employees with acute hepatitis C infection will be sent home on sick leave during the acute infection (jaundice). All cases will be reported to the State, as per State regulations.

ii. Employees that have had an acute infection are to be medically cleared prior to returning to work. Employees will be followed for at least one year to determine if they have developed chronic hepatitis C infection. An employee with HCV (acute or chronic), regardless of symptoms, will be referred to a gastroenterologist/or infectious disease specialist for evaluation.

4. Management of Blood borne Exposures to HIV

a. Definition of Exposure

i. Healthcare personnel (HCP) will be defined as having been occupationally exposed to HIV under the following conditions: The source is HIV-positive (HIV Ag/Ab and Western blot antigen positive, or HIV Ag/Ab positive and Western blot pending or Positive HIV-RNA) AND one of following has occurred.

1) The HCP has suffered a percutaneous injury with a contaminated sharp (contaminated is defined as previous contact with blood, bloody body fluid, or potentially infectious fluid {semen, vaginal secretions, cerebrospinal fluid, synovial, pleural, peritoneal, pericardial, and amniotic fluids}).

2) The HCP has had contact on a mucosal surface with contaminated blood, bloody body fluid, or other potentially infectious fluids (semen, vaginal secretions, cerebrospinal fluid, synovial, pleural, peritoneal, pericardial, pericardial, and amniotic fluids).

3) The HCP has had parenteral exposure to or mucosal membrane contact with saliva during a dental procedure.

4) HCP has received a bite which breaks the skin.

5) HCP has had skin contact with blood, fluid containing visible blood, or other potentially infectious fluid or tissue AND the skin integrity in the area of contact was visibly compromised.

ii. Healthcare personnel will NOT be defined as having been occupationally exposed to HIV under the following conditions:

1) The source is HIV negative even if the source is a member of a group at high risk of HIV infection.

2) Inhalation or possible inhalation of microscopic blood or bloody fluids.

3) Contact of intact skin with contaminated blood or a bloody fluid unless such contact is prolonged or extensive.

4) Percutaneous injury with a non-contaminated sharp.

5) Parenteral exposure or mucous membrane contact with saliva, sputum, tears, human milk, urine, or feces, in which there is no visible blood.

PMC will make anti-retroviral medication available at no cost to employees who meet CDC criteria for an exposure warranting PEP. Employees who desire anti-retrovirals for other indications will be referred to their local medical doctor or the Infectious Disease Clinic (treatment being at the employee's expense).

c. HIV Testing

i. PMC tests for HIV using a HIV antigen/antibody combination test that screens for HIV-1 p24 antigen and antibodies to HIV-1, HIV-2 plus group O. Initially-positive tests are repeated in duplicate. Repeat-positive tests are confirmed for HIV-1or HIV-2 by MultiSpot HIV-1/HIV-2 rapid test before being reported as Positive. Repeat-positive tests that are Negative or Indeterminate by MultiSpot HIV-1/HIV-2 rapid test are reflexed to Quantitative HIV-1 RNA PCR testing.

E. Determination of Employees with Reasonably Anticipated Occupational Exposure

Each manager will review their list of job classifications to identify which employees in those positions have reasonably anticipated occupational exposure. (See Appendix 4 for job classification listing.)

F. Training and Record Keeping

a. Employees who have occupational exposure to blood and other potentially infectious materials will receive training at the time of initial assignment to an area where occupational exposure may take place and at least annually and more often if a need is indicated. Opportunities for interactive questions and answers are available 24 hours a day, 7 days a week, provided by the Infection Preventionist (IP) on call. Contracted services are responsible for providing OSHA education regarding Blood borne Pathogens to contract employees.

a. The OSHA-required training is a condition of employment for all employees of Pikeville Medical Center. Each department manager must ensure that all employees identified as having potential occupational exposure participate in a training program.

b. Training shall be provided at the time of initial employment prior to participating in exposure-prone activities and within 364 days from last training thereafter. The hospital will provide additional training when changes such as modifications of tasks or procedures affect the employee's risk for occupational exposure.

c. The majority of employees of the Hospitals utilize a self-instructional yearly Safety Fair module located on the education web page, the completion of this module is required yearly.

4. Training Elements

a. The training contains the following elements:

i. An accessible copy of the regulatory text of the OSHA blood borne pathogen standard.

ii. A general explanation of the epidemiology and symptoms of blood borne diseases.

iii. HIV and HBV must be described. Employer must convey that a number of other blood borne diseases exist.

iv. An explanation of the modes of transmission of blood borne pathogens. An explanation of the Exposure Control Plan.

v. An explanation of the appropriate methods of recognizing procedures and other activities that may involve exposure to blood and other potentially infectious materials.

vi. An explanation of methods that will prevent or reduce exposure including engineering controls, work practices and personal protective equipment.

vii. Information on the types, proper uses location, removal, handling, decontamination and/or disposal of personal protective equipment.

viii. An explanation of the basis for selection of personal protective equipment.

ix. Information on the hepatitis B vaccine, including information on the vaccine's efficacy, safety, and the benefits of being vaccinated.

x. Information on the appropriate actions to take and persons to contact if an emergency involving blood occurs.

xi. An explanation of the procedures to follow if an exposure incident occurs, including the methods of reporting the incident and the medical follow-up that will be made available.

xii. An explanation of the procedures to follow if an exposure incident occurs, including the methods of reporting the incident and the medical follow-up that will be made available.

5. Training Record Elements

a. The dates of the training sessions.

b. The contents or a summary of the training sessions.

c. The names and qualifications of the persons conducting the training.

d. The names and job titles of all persons attending the training sessions.

e. Records are maintained for three years from the date on which the training occurred.

Appendix 1: Definitions Term Definition

Blood

Human blood, human blood components, and products made from human blood.

Blood borne Pathogens

Pathogenic microorganisms that are present in human blood or other potentially infectious materials (OPIM) and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV) and syphilis.

Contaminated

The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry

Laundry wet or soiled with blood or other potentially infectious materials and presents a reasonable likelihood of soak through or leakage from the bag or contains laundry, which may contain sharps.

Contract Employees

Any employee that is not paid by PMC.

Decontamination

The use of physical or chemical decontamination means to remove, inactivate, or destroy blood borne pathogens on a surface or item.

Engineering Controls

Controls (e.g. sharps disposal containers, self-sheathing needles, and safer medical devices, such as sharps with engineered sharps injury protectors and needleless systems) that isolate or remove the blood borne pathogens hazard from the workplace.

Exposure Incident

A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Needleless System

A device that does not use needles for: 1) collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; 2) the administration of medication or fluids or 3) any other procedure involving the potential for occupational exposure to blood borne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure

Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. This definition excludes

incidental exposures that may take place on the job, and that are neither reasonably nor routinely expected and that healthcare personnel is not required to incur in the normal course of employment.

Other Potentially Infectious Materials (OPIM)

(1) The following body fluids: semen, vaginal secretions synovial fluid, cerebrospinal fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV, HBV or HCV containing cell or tissue cultures, organ cultures, and HIV, HBV, or HCV containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV, HBV, or HCV.

Parenteral

Piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment (PPE)

Specialized clothing or equipment worn by an employee for protection against a hazard.

Regulated Medical Waste

Infectious waste (microbiological, pathological, and blood products) that is to be disposed of according to rules established by the North Carolina Solid and Hazardous Waste Management Branch.

Sharp with Engineered Safety Device

A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual

Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Standard Precautions

A method of infection control in which all human blood and other potentially infectious materials (OPIM) are treated as if known to be infectious. Standard Precautions apply to (1) blood; (2) all body fluids, secretions, and excretions except sweat, regardless of whether or not they contain visible blood; (3) non-intact skin; (4) mucous membranes; and 5) human milk. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in hospitals.

Sterilize

The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Work Practice Controls

Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.