## Exposure Control Plan: Blood Borne Pathogen

ORGANIZATIONAL: Effects two or more departments.							
Folder	Organizational Choices:		Sub-Folder	n/a			
	Infection Prev	Infection Prevention		(If Applicable)			
Original	12/29/2014	Scope	<b>cope</b> What departments does this policy apply to? State "All" as it may apply to the			ply to the	
Effective		-	entire organization. All				
Date							
Approved (Approver/Date)	IPC: 4/24/19 MultiDisc:4/18/19 MEC: 5/28/19						
Last	6/4/2019	OSHA	1	Standard	n/a	Number	24
Reviewed/		Category		(If Applicable)		of Pages	
Revised		(If Applicable)					
Date							

## PURPOSE: Why does this policy exist?

The Exposure Control Plan (ECP) is designed to identify those persons at risk for occupational exposure so that appropriate training, personal protective equipment, vaccines and exposure management may be provided. This plan is provided to eliminate or minimize occupational exposure to blood borne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Blood borne Pathogens."

## **GUIDELINES**: What are some general statements regarding the use of the policy?

The ECP is a key document to assist Southeast HEALTH in implementing and ensuring compliance with the OSHA standard thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
  - o Universal precautions
  - o Engineering (safer medical devices) and work practice controls
  - Personal protective equipment
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstances surrounding exposure incidents

## **PROCEDURE**: Include: Definitions, Equipment, Process, Documentation

Define occupational exposure (i.e., reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (OPIM) that may result from the performance of the employee's duties).

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

Copies of the plan are available on the hospital's intranet page.

Each of the components of the ECP will be reviewed annually by the Infection Preventionist, with revisions made as necessary, and approved by the Infection Prevention & Control and Environment of Care (EOC) Committees.

The Infection Preventionist, with the assistance of the Safety Officer, shall assume the responsibility of planning, implementing, and overall management of the plan. All Department Directors, Managers and Supervisors shall be directly responsible for exposure control in their respective areas.

The responsibility for initial training and ongoing education of the employees shall be that of the Department Director, Manager or Supervisor with the assistance and guidance of the Infection Preventionist. Each new employee will be instructed about the overall contents and location of the ECP during his/her orientation. The Department Director, Manager, or Supervisor offers specific training as to Personal Protective Equipment (PPE) use, location, and specific tasks that put the employee at risk for exposure to blood borne pathogens. Annual education is provided through Education Services utilizing a windows based computer program with test. Each department shall continue to train and update personnel as to department specific and job-specific safe practices and PPE as needed. Medical staff receives education annually in a bundle. The receipt and understanding of the information is documented and maintained in the medical staff office.

## **RECORDKEEPING AND DOCUMENTATION OF TRAINING**

All Department Directors, Managers and Supervisors shall be responsible for documentation of education and training, compliance, updates, and annual review for those employees having exposure or the possibility of exposure to blood borne pathogens. Education Services' guidelines shall be followed for documentation purposes, which include appropriate sign-in sheets and proof of attendance. Documentation of credentialed medical staff is maintained in the medical staff office.

A log of occupational injuries and illnesses under 29 CFR part 1904, will be maintained. A sharps injury log will be established and maintained for recording percutaneous injures from contaminated sharps. The sharps injury log will contain, at a minimum, the type and brand of device involved in the injury (if known), the department or work area where the exposure incident occurred, and an explanation of how the incident occurred. The log must be recorded and maintained in a manner that protects the confidentiality of the injured worker (e.g., removal of personal identifiers).

#### HEALTHCARE WORKER (HCW) RESPONSIBILITY

As with all of Southeast Health's activities, employees have the most important role in the blood borne pathogens compliance program, for the ultimate execution of much of the ECP\_rests in their practices. In this role, each employee shall perform their job duties with the following in mind:

- Know what occupational exposures exist or may exist in their specific job.
- Complete web based training sessions initially, annually, and when necessary for updates.
- Plan and consistently conduct all operations in accordance with work practice and engineering controls as a priority.
- Practice good personal hygiene habits, and promote, as well as, be an example for proper hand hygiene.
- Assist Southeast Health in maintaining, updating, and promoting the ECP by ongoing practice and evaluation of the program as it pertains to safety in the work place.

#### **EXPOSURE DETERMINATION**

The following list constitutes the job categories of those personnel who may have occupational exposure to blood or other potentially infectious materials (OPIM) as defined by OSHA. There may be some personnel in a category whose job does <u>not</u> require contact with blood, and those would be considered on an individual basis. As job categories change, some personnel may not be listed, however, determination shall be made on the basis of job requirements and the job description. This list shall be updated with the annual review of the plan.

- Anesthesia
- Audiologist
- BioMed
- Cancer Center
- Cardiac/Pulmonary Rehab
- Case Managers
- Central Sterile
- College of Nursing
- Dialysis Unit
- Discharge Planners
- Emergency Room
- Employee Health
- Environmental Services
- Endoscopy Services
- HealthPoint
- Home Care/Hospice
- Wound Care
- Infection Control
- Laboratory
- Imaging
- Facilities Management

- Maternal/Child
- Obstetrics/Nursery
- Pastoral Care
- Patient Care Units
- Patient Educators
- Patient Registration
- Pharmacy
- Physician Services
- •
- Radiation/Oncology
- Recovery Room
- Inpatient/Outpatient Rehab
- Respiratory Therapy
- Security
- Sleep Lab
- Social Services
- Surgery
- Transnort
- Volunteer
- Contract HCW

In addition to this job category list, a **Personal Protective Equipment Task Chart**, and a **Department Specific PPE Task Chart** may be used to separate out tasks that may expose employees to blood borne pathogens. Examples of these two charts are included in this section. Directors, Managers and Supervisors are encouraged to use these tools in order to more clearly define job tasks that may expose employees.

# PERSONAL PROTECTIVE EQUIPMENT TASK CHART

GENERAL TASKS	EXAMPLE	GLOVES:	MASK OR	FLUID	FACIAL/EYE
Note: Hand Hygiene is Appropriate with all Tasks		DISPOSABLE OR UTILITY	RESPIRATOR	RESISTANT GOWN OR COAT	PROTECTION
Transporting patient					
Transporting patient—airborne isolation (if patient can't tolerate a mask-limit transp.)	Suspect or known: TB, chicken pox, measles, mumps, rubella, res. Illness		+		
	of undetermined etiology, SARS Patient: verbal instruction,	Δ		۸	
Talking to patient	education, taking history, obtaining signatures, registration	Δ	+	Δ	
Entering patient room: non-	Delivering food tray, menus,				
isolation	newspapers, flowers				
Entering patient room: isolation	Delivering food tray	s/Δ	+	S/Δ	S
Exam: NO blood/OPIM contact	Taking vital signs, adjusting IV fluid rate	s/∆	+	S/Δ	
Exam: with blood/mucous membrane/OPIM contact or non-intact skin, rashes or lesions, sores	Performing wound/ostomy care, catheter care, performing feeding tube/NG changes, mouth care, suturing	Λ	+	S/A	S
Radiology and Cardiology, non- invasive	EKG, EEG, EMG, external Ultrasound, placing electrodes, chest x-ray	s/Δ	+	S/Δ	S
Invasive procedure	Internal Ultrasonic probes placed, endoscopic probe placed, barium enemas	^	+	S/A	S
Performing vascular access procedures	Drawing venous blood, fingersticks	٨	+	S/Δ	S
	Manipulating and inserting IV's	۸	+	S/Δ	S
	Drawing arterial blood, transfusing blood	۸	+	S/Δ	S
Maximal barrier precautions required	Inserting central venous or arterial lines	√/^	^/+	√/^/∆	۸
Medication administration	Administering eye, ear, nose, mouth drops/tablets	S	+	S/Δ	S
	IM or subcutaneous injections	S	+	S/A	S
	Placing rectal suppositories, enemas	۸	+	S/Δ	S
Respiratory care	Intubation or extubation	^	S/^	S/Δ	۸
	Cardiopulmonary resuscitation (CPR)	۸	s/+	S/A	S
	Suctioning, trach placement and care, nebulization	۸	^/+	S/A	۸

Operating room	Operative procedures	V	^/+	V	۸
Surgical- beside	Cardiac cath, bone marrow biopsy, joint taps chest tube placement, endoscopy, lumbar puncture	√/^	^/+	√/^	S
Specimen Handling	Agitation/vortexing, pipetting, opening containers of blood/body fluids	^	S	^	۸
Obtaining specimens	Wound swabbing, stool collection	^/Δ	+	S	S
	Throat swab	s/Δ	^	Δ	٨
Transporting specimens	Touching primary collection container: blood tube, urine container, sputum container	^		S	
<b>GENERAL TASKS</b> Note: Hand Hygiene is Appropriate with all Tasks	EXAMPLE	GLOVES: DISPOSABLE OR UTILITY	MASK OR RESPIRATOR	FLUID RESISTANT GOWN OR COAT	FACIAL/EYE PROTECTION
	Touching secondary transport container: biohazard ziplock bag, carrying tray				
Equipment/waste handling	Soiled linen handling (point of use)	^	+	Δ	S
	Placing sharps into disposal containers	۸	+	S/A	S
	Cleaning contaminated equipment	^/H	+	^	۸
	Cleaning blood/body fluid spills	^/H	S/+	S/Δ	S
Maintenance- Repairs	Changing of notions we are filters or	^	^/+/∆	^/Δ	^
	Changing of patient room filters or other used filters before they are placed in a closed disposal bag.		, ,	, -	
	other used filters before they are	^/н		S	S

## TABLE KEY

In general, appropriate PPE recommended to be used whenever occupational exposure may occur.

- √ Sterile
- ^ Recommended to be routinely used
- S Use if there is anticipated risk of splashing, spraying of blood or Other Potentially Infectious Material (OPIM)
- + Use mask or respirator whenever there is known/suspected airborne diseases: TB, Chickenpox, Measles, Mumps, Rubella, Resp. illness of undetermined etiology, SARS, etc. Remove AFTER leaving room.
- Δrefer to Isolation Precaution policies
- H Heavy duty utility gloves are preferred.

#### OSHA EXPOSURE RISK CATEGORY

- 1. Each policy will be evaluated as to risk of blood or body fluid exposure to the employee.
- 2. The category selection will be based on the following:
  - a. CATEGORY I: All procedures or other job-related tasks that involve exposure to blood, body fluids or tissues.
  - b. CATEGORY II: Tasks that involve no exposure to blood, body fluids or tissues, but employment may require performing unplanned engaged Category I tasks.
  - c. CATEGORY III: Tasks that involve no exposure to blood, body fluids, or tissues and Category I tasks are not a condition of employment.
- 3. Each policy will be clearly marked by the words, OSHA Category: I, II, or III placed on the front page of each policy.
- 4. Those policies that do not require the performance of a task will not be categorized for exposure level.
- 5. Staff to receive education regarding blood borne pathogens and appropriate personal protective equipment (PPE) as related to the task described in the policy with an OSHA Category I or II

## METHODS OF COMPLIANCE

We understand that there are a number of areas that must be addressed in order to effectively eliminate or minimize exposure to blood borne pathogens (BBP) in our facility. The five areas we address in the plan are:

- The use of Standard precautions
- Establishing appropriate engineering controls
- Work practice controls
- Using necessary personal protective equipment
- Implementing appropriate housekeeping procedures

Each of these areas is reviewed with our employees during their Health orientation and with other blood borne pathogen related training annually. By rigorously following the requirements of OSHA's Blood borne Pathogens Standard in these five areas, we feel we will eliminate or minimize our employees' occupational exposure to blood borne pathogens as much, as is possible.

## STANDARD PRECAUTIONS

At Southeast Health, we observe the practice of Standard Precautions to prevent contact with blood and other potentially infectious materials. As a result, we treat all human blood body fluids as if they are known to be infectious.

The Infection Prevention Department (office number: [573] 651-5548), is responsible for overseeing the ECP.

STANDARD PRECAUTIONS\_shall be observed to prevent contact with blood or other potentially infectious materials (OPIM). Southeast Health will evaluate engineering and work practice

controls to eliminate or minimize employee exposure whenever possible. Hand washing sinks are located in readily accessible areas throughout the facility. Employees are to follow the organization policy on Hand Hygiene.

## **ENGINEERING CONTROLS**

Some examples of these engineering controls are, sharps disposal containers, self-sheathing needles, ventilating laboratory hoods, a needleless system for administering intravenous fluids and medications, and various appropriate containers for transporting specimens.

Southeast Health identifies the need for changes in engineering controls and work practices through review of sharps injury records, employee interviews, and product review through materials management. New procedures and products are evaluated by front-line staff by way of structured product trials.

Staff members who regularly use the equipment or device evaluate engineering controls through the reporting of practice variation and alternate equipment/device availability for evaluation. Infection Prevention, Materials Management, and the Environment of Care Committee assist in the selection and evaluation of new products.

Responsibility for inspection and activation of all engineering controls\_is that of the user. Each safety device must be inspected each time it is used in order to evaluate its effectiveness. Should defects be found, or the equipment appears to be questionable for use, the user will immediately contact the appropriate person (Manager, BioMed, Facilities Management, Infection Prevention, etc.) for instructions. Environmental Services oversees a third party vendor in removal and replacement of sharps containers in patient rooms and all areas of the facility in coordination with nursing staff and other users when the containers are 2/3 full.

Department of Transportation regulated medical waste training has been provided to assigned offsite staff who are responsible for monitoring, changing, and packaging of regulated medical waste including sharps containers and red bag materials.

## WORK PRACTICE CONTROLS

The persons responsible for overseeing the implementation of these work practice controls\_are the Infection Preventionist and the Safety Officer, with the assistance of the Environment of Care and Infection Prevention & Control Committee members. All work is done in collaboration with Department Directors, Managers and Supervisors to affect implementation of safe practices.

Southeast Health has adopted the following work practice controls\_as part of the blood borne pathogens compliance program:

- Contaminated needles and other contaminated sharps are not bent, recapped or removed unless: it can be demonstrated that there is no feasible alternative; the action is required by specific medical procedure.
- In the two situations mentioned above, recapping or needle removal is accomplished through the use of a mechanical device or a one-handed technique.

Contaminated sharps shall be discarded in biohazard-labeled, puncture-resistant containers placed as close as reasonably possible to the point of use. The contents of the container shall be at the 2/3rds filling level only and not overfilled. Containers shall be kept upright and securely closed prior to removal or replacement in order to prevent spillage and exposures.

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses is prohibited in work areas where blood or other potentially infectious material (OPIM) are present. Food and drink are not kept in refrigerators, freezers, on countertops or in other storage areas where blood or OPIM are present. During procedures involving blood or OPIM, minimize splashing, spraying, or other actions generating aerosolization of these materials.

Specimens of blood or OPIM are placed in designated leak-proof containers. Primary specimen containers are placed within a second leak-proof container, and appropriately labeled for handling and storage. If the specimen can puncture the primary container, the secondary container must be puncture-resistant as well.

All containers used to hold specimens of blood or OPIM shall be constructed in such a way that prevents leakage during collection, handling, storage, transport, or shipment. Containers are recognizable as specimen containers by utilization of a red biohazard bag or red biohazard container. A biohazard label is attached to carriers designed to transport multiple specimens. Specimens are to be placed in a secondary zip-lock biohazard bag prior to delivery to the lab. Any containers displaying the biohazard symbol should be disposed of in the infectious waste disposal system (e.g., zip-lock biohazard bags, red biohazard waste bags).

For a newly hired employee or one who changes jobs within the facility, the following process takes place to ensure that the employee is trained in the appropriate work practice

- takes place to ensure that the employee is trained in the appropriate work practice controls:
- Based on this checking, the new job classification which will bring the employee into occupational exposure situations is identified; and,
- The employee is then trained by their new manager regarding any work practice controls that the employee has had no prior experience with or has not been trained on in the past.

CONTAMINATED MEDICAL EQUIPMENT: Equipment that becomes contaminated is examined prior to servicing or shipping, and decontaminated as necessary (unless it can be demonstrated that decontamination is not feasible):

- Prior to sending equipment to BioMed or Facilities Management, it shall be decontaminated.
- When it is not possible or feasible to decontaminate the equipment, an appropriate biohazard warning label is attached
- Information regarding the remaining contamination is conveyed to all affected employees, the equipment manufacturer, and the equipment service representative prior to handling, servicing or shipping.
- BioMed and Facilities Management staff shall observe Standard Precautions and wear PPE when handling contaminated equipment.
- If it is necessary to ship contaminated equipment to a manufacturer, the company representative or manufacturer will be notified of the biohazard prior to shipping.
- Appropriate labels will be affixed to the equipment.

#### PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) is available for all health care workers who may have occupational exposure. This equipment is available at no charge to the employee, and is readily available in convenient locations throughout the facility. All personnel who may have occupational exposure are required to use PPE whenever they have reasonable anticipation of exposure. The only acceptable exception is when it is the employee's professional judgment that in a specific instance the use of PPE would have prevented the delivery of care or poses an increased hazard to the worker or coworkers. In all such observed instances, the circumstances shall be investigated and documented so changes can be made to prevent future exposures. Any time garments are penetrated by blood or OPIM, the garments shall be removed immediately or as soon as reasonably possible. All PPE must be removed prior to leaving the work area. This equipment includes, but is not limited to:

- Gloves
- Gowns
- Eye protection
- Masks

Gloves shall be worn when contact with blood, mucous membranes, non-intact skin or OPIM is likely. Gloves must be removed and replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured or when the barrier properties are compromised. With the exception of reusable utility gloves, gloves should never be washed or decontaminated for reuse. Utility gloves are decontaminated for reuse unless they are cracked, peeling, torn, or exhibit other signs of deterioration, at which time they are disposed of appropriately. Gloves must be worn when performing vascular access procedures, and when handling or touching items or surfaces that are contaminated. For persons who are allergic, hypoallergenic, powder less, synthetic, gloves and glove liners are available. To decrease latex exposure within the facility, non-latex gloves will be used when possible. Vinyl gloves should not be used when there is a possibility of exposure to blood or OPIM. Nitrile gloves may be used when workers need protection from exposure to certain chemicals or blood or OPIM. Persons with such allergies shall be evaluated by Employee Health to determine the appropriate solution.

Mask, eye, and face\_protection shall be worn whenever splashes, sprays, splatter, or droplets of blood or OPIM may be generated and eye, nose or mouth contamination can be reasonably anticipated.

For persons who choose to wear their own prescription glasses when such exposure is likely, slipon side shields should be worn.

Cover gowns, aprons or other protective clothing will be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of blood or OPIM to pass through to the skin or mucous membranes of the employee.

All PPE will be disposed of according to the level of biohazard contamination as defined by OSHA definition of "regulated waste" as defined by 29 CFR 1910.1030, "Occupational Exposure

to Blood borne Pathogens". The blood borne pathogens standard defines regulated waste as liquid or semi-liquid blood or other potentially infectious material (OPIM); contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM. PPE contaminated with body fluids other than blood, or OPIM, shall be disposed of in regular waste. Environmental Services disposes of both routine and regulated waste, and takes appropriate precautions with both.

Department Directors, Managers and Supervisors working with the Infection Preventionist and Materials Management are responsible for ensuring that all departments and work areas have adequate PPE available to employees, physicians, and visitors. Managers and supervisors will inform employees as to PPE locations in their departments.

Directors, Managers or Supervisors train their employees about the use of appropriate PPE for their job classification or tasks performed. Additional training shall be provided when necessary, and when an employee takes a new position or new job functions are added to their current ones. Compliance monitoring of the use of PPE shall be accomplished by observation on an on-going basis. Monitoring may also occur during surveillance by Infection Prevention or safety inspections by Environment of Care Committee members. Wearing of PPE may also be mentioned in summary reports on employee exposures, which is documented by Employee Health. Employees shall receive counseling when they fail to wear suggested PPE, and when exposure results from a lack of its use.

To ensure that PPE is not contaminated and is in the optimum condition to protect employees from potential exposure, Southeast Health adheres to the following practices:

- PPE is routinely inspected and repaired or replaced as needed to maintain its effectiveness at no cost to the employee.
- Reusable PPE is cleaned and laundered as needed at no cost to the employee.
- Single-use PPE, or equipment that cannot be decontaminated is disposed of according to infectious waste guidelines.
- PPE of various sizes and types (e.g., latex-free) are provided and re-evaluated for job task and wear ability on an on-going basis.

## **ENVIRONMENTAL SERVICES**

The housekeeping staff practices the following:

- All equipment and surfaces are cleaned and decontaminated after contact with blood or OPIM
- After the completiOn of medical procedures;
- Immediately, or as soon as reasonably possible when surfaces are overtly contaminated;
- After a spill of blood or OPIM material; and
- At the end of the work shift if the surface may have been contaminated during that shift.
- All pails, bins, cans and other receptacles intended for cleaning use are routinely inspected, cleaned and decontaminated as soon as possible if visibly soiled;
- Potentially contaminated broken glassware is picked up using mechanical means such as

dustpan and brush, tongs, forceps, or other hands-off methods; and,

• Contaminated reusable sharps are stored in containers that do not require hand reprocessing.

Environmental Services is responsible for setting up the cleaning and decontamination schedule and making sure it is followed throughout Southeast HEALTH.

## Regulated Waste

Environmental Services is responsible for the collection and handling of regulated wastes. Sharps containers are collected by a third party vendor at the point of generation. Regulated waste is:

- Discarded in containers that are:
  - Closeable, puncture resistant, leak proof
  - Color-coded red, labeled with the biohazard warning label

Containers are located throughout the facility, within easy access of employees, and as close as possible to the sources of the waste. Containers are maintained upright, routinely replaced and are not to be overfilled. Whenever employees move containers of regulated waste from one area to another, the containers are immediately closed and secured shut for transport. For transport purposes, the waste bags or boxes are placed inside a secondary container to prevent leakage and promote safer transport to the next destination.

Department of Transportation regulated medical waste training has been provided to assigned offsite staff who are responsible for monitoring, changing, and packaging of regulated medical waste including sharps containers and red bag materials.

## CONTAMINATED LAUNDRY

Southeast Health utilizes a third party vendor that processes all reusable linen. All linen is to be considered contaminated, and therefore precautions will be taken with all linen. The used linens are placed in leak proof, blue linen bags at the point of use, secured, and sent to the laundry. Yellow soiled linen bags are used for known patients who have had chemo within 72 hours.

If a HCW's own personal clothing or employee-owned uniform becomes contaminated during the course of work, Southeast Health shall launder the clothing and provide a temporary uniform while the HCW's or employee's uniform is being washed.

## POST-EXPOSURE EVALUATION AND FOLLOW-UP

## Hepatitis B Vaccination:

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 blood borne 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.

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

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 Employee Health.

# 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.

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

Notify your Supervisor or Manager.

 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.

• 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" 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. Hep B 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.
- Complete event report.

**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		
			Unknow		
Unvaccinated	HBIG x1* and initiate	Initiated Hep B	Initiated Hep B		
	Hep B vaccine**	vaccine**	vaccine*		
Incomplete vaccine	HBIG x1* and	Complete Hep B	Complete Hep B		
series	complete Hep	vaccine series	vaccine series		
	B vaccine series	as	as		
Previously vaccinated Known Responder	Test exposed for anti- HepBs unless tested within past 24 months. If inadequate,***Hep B	No treatment	No treatment		
Known NonResponde r	HBIG x2* (immediately and 1 month later) OR HBIG x1* plus 1	No treatment	If known high risk source, may treat as if source were HBsAg+		

			<b>T I C I C</b>
Response Unknown	Test exposed for	No treatment	Test exposed for anti-
	anti-		HBs unless tested
	HBs unless tested		within past 24
	within past 24		months. If
	months. If		inadequate***
	inadequate***,		Hep B vaccine
	GBIG x1* plus Hep B		booster dose** If

\*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. 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. The employee is to contact Employee Health at 986-4404 for lab results and follow-up.

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

- When the incident occurred: date/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 the type of device (providing brand name) involved in the injury and if the device had 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, 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:

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 personnel. 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.

The exposed HCW's blood is tested for HBV, HCV, Hepatitis B Titer, and HIV.

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 number to reach the Post-Exposure Prophylaxis Hotline is—888-448-4911.

## INFORMATION PROVIDED TO THE HEALTHCARE WORKER

A copy of the Blood borne Pathogens Standard is available in the Infection Control, Employee Health/Occupational Medicine Office, and on the Southeast HEALTH intranet site and can be provided at the HCW's request.

#### MEDICAL RECORD KEEPING

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

Employee Health is responsible for maintenance of the required medical records. These confidential records are kept in employee health for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Request should be sent to Employee Health.

## OSHA RECORDKEEPING

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by Employee Health/Human Resources.

#### SHARPS INJURY LOG

Is maintained by Employee Health, Human Resources.

## HIV Occupational Post-Exposure Prophylaxis Formulary

Post-exposure prophylaxis formulary at Southeast Hospital consists of Truvada (emtricitabine/tenofovir) and Tivicay (dolutegravir). Both medications are taken together once daily. Duration of therapy is twenty-eight days.

Truvada (emtricitabine/tenofovir)

- Emtricitabine 200 mg and tenofovir disoproxil fumarate 300mg per tablet, one tablet by mouth daily.
- Possible Side Effects: nausea, dizziness, kidney failure, osteopenia
- Boxed Warning: lactic acidosis, liver impairment
- Pregnancy category: B
- Consider calcium/vitamin D supplementation in patients with history of osteopenia

## -PLUS-

## Tivicay (dolutegravir)

- Dolutegravir 50 mg per tablet, one tablet by mouth daily.
- Boxed Warning: hypersensitivity reactions, liver impairment
- Major drug interactions: contraindicated with Tikosyn (dofetilide), phenytoin, oxcarbazepine, phenobarbital, primidone
- Pregnancy Category: compatible with pregnancy, benefit outweighs risk

## Recommended Monitoring (baseline and every 2 weeks or per physician discretion)

- Renal function (BUN, serum creatinine)
- Liver function tests
- CBC with differential
- Blood glucose
- Blood lactate, signs and symptoms of lactic acidosis (Truvada)

## <u>Procedure</u>

Upon notification of the need for PEP, Southeast Hospital inpatient pharmacy will dispense an emergency supply of the above medications to last until the exposed person can be seen by Employee Health/Occupational Medicine. Once seen, if it is determined that PEP is to be continued, prescriptions will be provided by Employee Health for the exposed person to complete the course.

## HAZARD COMMUNICATION LABELS and SIGNS

Warning labels include the Standard biohazard symbol followed by the term "biohazard." The biohazard label must be fluorescent orange or orange-red, with lettering or symbols in a contrasting color. The labels must be either an integral part of the container or affixed as close as feasible to the container by a string, wire, adhesive, or other method to prevent their loss or unintentional removal. Red bags or containers may be substituted for specific labeling. We may

include other labeling messages as long as they do not detract from the visibility of the word biohazard.

For health care workers (HCWs) the most obvious warning of possible exposure to blood borne pathogens is biohazard labels. Because of this, we have implemented a comprehensive labeling program that is guided by the Safety Officer, EOC and Infection Prevention & Control Committees oversee the program, and suggest changes or revisions.

The following items at Southeast Health are labeled:

- Containers of regulated waste
- Refrigerators or freezers containing blood or OPIM
- Sharps disposal containers
- Other containers used to store, transport, or ship blood and OPIM Contaminated equipment

All lab specimens in primary containers are placed in a secondary biohazard container that is leak resistant, or, if necessary, a puncture resistant container and then sent to the lab for processing.

Labeling is NOT required for:

- Containers of blood, blood components, and blood products as to their contents and released for transfusion or other clinical use because they have been screened for HBV and HIV prior to their release
- Individual containers of blood or OPIM that are placed in secondary labeled containers during storage, transport, shipment or disposal
- Specimen containers, since we use standard precautions when handling all specimens
- Laundry bags or containers since we use standard precautions for handling all laundry
- Regulated waste that has been decontaminated

Containers used to transport specimens, such as phlebotomy trays, will be appropriately labeled with a biohazard symbol.

Our HCWs are trained and know that all dirty linen at Southeast Health is considered contaminated and potentially infectious; therefore, no special labeling of dirty linen is necessary.

When labels are affixed to contaminated equipment, we indicate which portion of the equipment is contaminated.

At Southeast Health, we recognize that biohazard signs must be posted at entrances to HIV and HBV research laboratories and production facilities. However, the laboratories in our facility perform only clinical and diagnostic work, which is not covered by these special signage requirements.

Any biohazard labeled containers, bags, red bags, or bags labeled as "Infectious" will be disposed of in regulated waste according to Southeast Health's Infectious Waste Plan. A copy of the plan may be found on the intranet in the Infection Prevention & Control Policy section.

#### INFORMATION AND TRAINING

The OSHA standard requires ALL employees with occupational exposure receive training. This includes part-time, temporary, contract, credentialed and "per-diem" employees. New employees shall be trained at the time of initial employment or upon assignment of job duties and annually.

Training provided to all HCWs with occupational exposure as defined in the ECP shall be:

- At no cost to the employer
- During working hours;
- At a reasonable location;
- Under the direction of an individual who is knowledgeable in the subject matter; and
- With the understanding that a person knowledgeable in the subject matter shall be reasonably accessible to the employee for questions and responses on the subject of blood borne pathogens.

Training shall be appropriate in content, language, and vocabulary to the educational, literacy, and language background of the individual employee.

Informed and educated employees are extremely important when attempting to eliminate or minimize health care workers (HCW) exposure to blood borne pathogens. Because of this, employees who may have the potential for exposure to blood borne pathogens are provided annual education and updates, and are furnished with as much information as possible on the subject.

Employees of Southeast Health shall be educated at least annually to keep their knowledge current. Additionally, all new employees, as well as employees changing jobs or job functions, shall be given any additional information at the time of their new assignment that their new position requires.

Department managers and supervisors shall be responsible for seeing that all their employees who have potential exposure to blood borne pathogens receive this training. Managers may be assisted with this process by the Infection Prevention & Control Department, the Education Department, and the Safety Officer who will provide appropriate training materials, and guidance in answering employee questions.

#### **TRAINING TOPICS**

The topics covered in the initial training program may include, but are not limited to the following: The OSHA blood borne pathogens standard.

- The epidemiology and symptoms of blood borne diseases.
- The modes of transmission of blood borne pathogens.
- Southeast Health's ECP and where employees may obtain a copy.
- Appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM.
- A review of the use and limitations of methods that will prevent or reduce exposure, including:
  - 1. Engineering controls
  - 2. Work practice controls
  - 3. Personal Protective Equipment (PPE)

- Selection and use of PPE, including:
  - 1. Types available
  - 2. Proper use
  - 3. Location within Southeast Health
  - 4. Removal
  - 5. Handling
  - 6. Decontamination
  - 7. Disposal
- Visual warnings of biohazards within Southeast Health including labels, signs and color-coded containers.
- Information from Employee Health on the Hepatitis B vaccine, including its efficacy, safety, method of administration, benefits of vaccination, and our free vaccination program.
- Actions to take and persons to contact in an emergency involving blood or OPIM. The procedure to follow if an exposure incident occurs, including incident reporting.
- Information on the post-exposure evaluation and follow-up, including medical consultation that Southeast Health provides.

#### **TRAINING METHODS**

Southeast HEALTH utilizes a computer based learning program for education regarding blood borne pathogens. A member of the Infection Prevention is available to answer any questions by calling 651-5548.

#### **RECORD KEEPING**

To facilitate the training of employees, as well as to document the training process, Southeast Health training records are maintained through Education Services.

Training records are available for examination and copying to employees and their representatives, as well as to OSHA and its representatives.

Department managers and supervisors shall maintain the records on employees assigned to their department by utilizing a file system or Education Service data collection. Should an employee transfer to another department, the new manager shall be able to access the employee's education file from Education Services or from the previous manager. Records shall be transferred as necessary.

#### **QUALIFICATION OF TRAINERS**

All trained instructors shall work closely with the Infection Prevention to ensure continuity of personnel training on the OSHA blood borne pathogens rule.

#### Resources

CDC fact sheets on various components of the blood borne pathogens standard may be accessed by going to the web site: <u>https://www.cdc.gov/niosh/topics/bbp/</u>

#### **COMPLIANCE MONITORING**

Southeast Health shall ensure that employees follow protective measures and safe practices in order to provide a place of employment free from recognized hazards. It is OSHA's position that, where the institution controls the potential for exposure, it is the institution's responsibility to control hazards to any employee on the premises, including employees of other employers. This includes agency nurses, or other contract employees. Southeast Health shall supply personal protective equipment (PPE) to unprotected employees from other employers on the Health's property.

Compliance monitoring may identify a need to modify a procedure, allocate additional supplies or equipment, or provide additional education and training. When monitoring reveals repeated failures to follow recommended practices after additional supplies, education and/or training and counseling has been provided, disciplinary action may be necessary.

Under certain circumstances, Southeast Health may be held responsible for physician failure to follow protective measures. Physicians who are members of professional corporations are generally considered to be employees of that corporation. Thus, the corporation may be held responsible for violations affecting those physicians, such as failure to provide the hepatitis B vaccine or to wear appropriate PPE. Moreover, where Southeast Health controls the hazard, Southeast Health also may be held responsible for violations affecting a physician who is the employee of the corporation. According to OSHA, Southeast Health would not be responsible when the only person exposed is a physician who is a sole practitioner or partner, because that physician would not be considered an employee under the Occupational Safety and Health Act. Additionally, if a Southeast Health employee is placed at risk of exposure by a physician (whether an employee or sole practitioner), Southeast Health, as the employer, may be held responsible for failure to ensure a safe workplace for its employee.

#### **MONITORING ACTIVITIES**

Many activities currently being used to monitor and evaluate safety practices and use of PPE may be utilized for monitoring this standard. These activities include, but are not limited to the following:

- Employee exposures evaluated by the Patient Safety, Environment of Care (EOC), Multidisciplinary Patient Care Committee and Subcommittees and Infection Prevention & Control Committee.
- Direct observation of individual employee performances during specific procedures either informally on walking rounds or by conducting competencies.
- Indirectly by observing engineering controls, such as needle disposal practices, filling of sharps containers, and the number or type of needle injuries.

• Using check lists detailing observations of personnel performing safety practices. Development of check lists or evaluation tools may be individual to a department or created for Southeast Health- wide use. Whatever method is chosen, compliance monitoring shall be ongoing with strides made toward safer work practices.

#### **RECORD KEEPING**

It is the responsibility of the manager or supervisor of the department to monitor compliance. This shall be accomplished through the various methods listed above and shall be ongoing. The EOC (Safety) Committee regularly visits departments for safety checks, and includes observations of safe practices. Also, employee health routinely monitors use of PPE with each report of an injury and reports findings to the EOC and Infection Prevention & Control committees. Environmental Services monitors inappropriate disposal of sharps on a daily basis, and assists each department in identifying unsafe practices. The managers are ultimately responsible for documentation and corrective actions. Annual employee evaluations shall include any recommendations for following safe practices. Failure of an employee to comply with required practices may result in disciplinary action.



4/9/19

**REFERENCES**: What resources are used to support the policy and procedure?

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- DHHS Panel on Antiretroviral Guidelines for Adultes and Adolescents: A working group of the office of AIDS research advisory council (OARAC). (2016, July 14). *Guidelines for the use of antiretroviral agents in HIV-1 infected adults and adolescents*. Retrieved April 9, 2019, from Aidsinfo.gov: https://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf
- Kuhar DT, H. D., & Group, U. P. (2013, November). Updated US Public Health Service guidelines for the management of occupational exposures to human immunodeficiency virus and recommendations for postexposure prophylaxis. *Infection Control, Hospital Epidemiology, 34*(11). doi:10.1086/672271
- Occupational Safety and Health Administration. (n.d.). *Regulations (Standards-29 CFR)*. Retrieved April 9, 2019, from United States Department of Labor:
- https://www.osha.gov/pls/oshaweb/owadisp.show\_document?p\_table=STANDARDS&p\_id=10051 *PEP: post-exposure prohylaxis.* (2016). Retrieved April 9, 2019, from Clinician Consultation Center:
  - http://nccc.ucsf.edu/clinician-consultation/pep-post-exposure-prophylaxis/

Attachments: (Label as Appendix A, B, C, etc.)