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Exposure Control Plan for Bloodborne Pathogens

I. Description

Describes the policies for reducing the risk of exposure to a bloodborne pathogen in the work place

II. Rationale

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

III. Policy

A. General Information

1. OSHA regulations (Occupational Exposure to Bloodborne Pathogens; Final Rule, is available on OSHA's website (www.osha.gov)) require that the employer provide a written Exposure Control Plan (ECP) that covers the facility's policies and procedures to prevent transmission of a bloodborne pathogen in the workplace.
   Healthcare Personnel (HCP) of the UNC Medical Center may have duties in more than one facility; therefore, this exposure control plan is designed for all HCP of UNC Medical Center (UNC Hospitals, Hillsborough Hospital, Wakebrook, the Ambulatory Surgical Center, UNC Health Care administrative offices and community based outpatient facilities) and the UNC-Chapel Hill Campus Health Services and the Adams School of Dentistry.
   a. The OSHA document, Occupational Exposure to Bloodborne Pathogens; Final Rule is available on OSHA's website (www.osha.gov).

b. UNC Medical Center (UNCMC) and UNC-CH facilities each have an Occupational Health Provider (OHP).

c. UNC Medical Center HCP receive services through the UNC Medical Center Occupational Health Service (OHS) located M-1153, 1st floor Memorial Hospital (UNCMC).

d. Hillsborough Hospital (HBH) HCP receive services through Hillsborough Occupational Health Service (OHS) located on 1st floor. OHS at UNCMC main campus is available when HBH OHS is closed.

e. OHS will provide TB testing, immunization screening, vaccine administration and care of non-emergent conditions/injuries. Healthcare Personnel (HCP) with emergencies should report to the ED.

f. University employees receive services through the University Employee Occupational Health Clinic (UEOHC) located in the AHEAC Building, 145 North Medical Drive.

g. UNC dental, medical, and other UNC health students receive services through Campus Health, James A. Taylor Building, 320 Emergency Room Drive. This includes visiting students such as visiting medical students who have an official rotation through a UNC health science school (i.e., students who have gone through an immunization review through the associated UNC health science school).

h. Non-UNC students should contact their primary school.

2. HCP who have duties within other healthcare facilities must comply with the provisions of the Exposure Control Plan for that facility. However, HCP are to obtain routine occupational health services through their employer's occupational health service (i.e., UNCMC OHS or University Employee Occupational Health Clinic).

3. Contract personnel must comply with this Exposure Control Plan. It is their employer's responsibility to provide basic bloodborne pathogen training and occupational health services consistent with the requirements of this document. Contract HCP with blood or body fluid exposures should contact their employer and be evaluated by the ED at UNC Medical Center unless a prior agreement for service with OHS has been established.

4. UNCMC HCP may obtain a copy of the Exposure Control Plan via PolicyStat. University employees may obtain a copy via the UNC-CH Environment, Health and Safety website (UNC Department of Environment, Health & Safety) or by contacting the UNC-CH Department of Environment, Health and Safety at 919-962-5507.

B. Responsibility

1. **Infection Prevention/University Department of Environment, Health and Safety (EHS)**

a. Review Exposure Control Plan and revise as needed.

b. Identify list of job classifications with potential for occupational exposure.

c. Provide ongoing consultation regarding implementation of OSHA's final rule on Occupational Exposure to Bloodborne Pathogens.

d. Develop and coordinate educational programs.

e. Assist with evaluation when non-compliance is reported. Noncompliance with bloodborne pathogen regulations by UNC Medical Center HCP, House Staff, and Attending physicians should be documented by completing a Safety Awareness for Everyone (SAFE) report.

f. Assist with the selection and evaluation of current safety devices.

2. **UNC Medical Center Occupational Health Service/University Employee Occupational Health Clinic**

    a. Review Exposure Control Plan.

    b. Review and maintain Hepatitis Immunization Program records.

    c. Review and continue post-exposure follow-up.

    d. Maintain documentation of exposure and follow-up as required by the OSHA final rule.

    e. The OSHA's Form 300 Log of Work-Related Injuries and Illnesses for UNC Medical Center employees is maintained in Environmental Health and Safety and OHS. For University employees, it is maintained in the University's Department of Environmental, Health, and Safety.

3. **Department Managers and Supervisors**

    a. Annually review list of all job classifications and identify job classifications in which HCP in those positions have reasonably anticipated risk of occupational exposure.

    b. Ensure and document employee orientation and annual training.

    c. Ensure compliance

    d. Ensure that suitable education/training programs are provided to HCP by knowledgeable trainer(s). Training will include the appropriate use of new devices on an ongoing basis, review where engineering controls are currently employed, where they can be updated, and participate in the selection and evaluation of safer medical devices.

    e. Ensure personal protective equipment and other necessary supplies are available in accessible locations.

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 the UNC Medical Center's Environmental Health and Safety Department/UNC-CH University's Department of Environment, Health, and Safety.

4. **Supply Chain Performance**

   - Oversees the selection and evaluation of new products being introduced to UNCMC.

5. **Oversight Committee**

   - Hospital Infection Control Committee (HICC) will serve as the Oversight Committee for the review/revision of the Exposure Control Plan for Bloodborne Pathogens.

6. **Healthcare Personnel**

   a. Know what tasks they perform that may cause occupational exposure.

   b. Participate in the bloodborne pathogens training module annually via the Learning Made Simple (LMS) or the University's Department of Environment, Health, and Safety training.

   c. Plan and conduct all operations in accordance with the UNCMC and University engineering controls, work practice controls, and the use of PPE.

   d. HCP who sustain an exposure incident must report the incident to their supervisor and follow up with the appropriate occupational health provider. UNC Medical Center HCP must complete a SAFE report.

   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) will protect HCP from an occupational exposure to blood or other potentially infectious materials (OPIM): see OPIM definition Attachment 1: Definitions.

1. Standard Precautions

   a. Standard Precautions (SP) refers to practicing blood and body fluid precautions for all patients. SP shall be observed to prevent contact with

blood or OPIM. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids except sweat shall be considered potentially infectious materials. Where occupational exposure remains after institution of engineering and work practice controls, personal protective equipment is also used.

2. Engineering Controls

    a. Engineering Controls are used as a primary means to eliminate or minimize HCP exposure to bloodborne pathogens. Examples of engineering controls include sharps disposal containers, needleless IV systems, self-sheathing needles, and biologic safety cabinets as appropriate.

    b. Supply Chain Performance, Hospital Infection Control Committee, and Environmental Health and Safety Committee work with department managers and HCP to review tasks and procedures performed in our facility where engineering controls can be implemented or updated.

    c. Departmental managers are responsible for assessing their area's needs on a continuing basis. Once an engineering control has been institutionally introduced and HCP training has occurred, the engineering control should be used unless there are medical reasons that would contraindicate its use.

Key Point:	**If nursing and/or medical staff believe an engineering control is contraindicated, staff will document the reason in writing and submit this to Infection Prevention for review and possible exclusion.**

    d. 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 bloodborne pathogens. Documentation must be maintained by the Supply Chain Performance team to ensure consideration and implementation of appropriate commercially available and effective safer medical devices has occurred (e.g., blunted suture needles).

3. Work Practice Controls

    a. Work practice controls are followed to help decrease the potential for HCP exposure to bloodborne pathogens. Oversight and implementation of work practice controls are performed by the department manager who works in conjunction with the Medical Center's Infection Prevention staff and safety personnel.

    b. Hand hygiene products (e.g., antimicrobial soap, waterless alcohol-based hand rub (ABHR)) are readily accessible to all HCP who have the potential for occupational exposure.

- Refer to the Infection Prevention policy: Hand Hygiene and Use of Antiseptics for Skin Preparation.

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

i. HCP must wash their 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, they must flush the exposed mucous membranes with water. Eyewash stations are located in multiple clinical areas of UNC Medical Center and the School of Dentistry. HCP should learn the location of the nearest eyewash station in their assigned work area. Additionally, UNC Medical Center Occupational Health Clinic has an approved eyewash station, located on first floor Memorial Hospital, Room 168. Refer to the Environmental Health and Safety policy: Emergency Eyewash and Shower Equipment.

iii. Shower facilities are available within the medical center for the HCP who encounters exposure to blood or OPIM. Showers are located in the Medical Center in the Emergency Department, Perioperative Services (Main hospital, Women's and Children's Hospital, Hillsborough Hospital (HBH), and on the ground floor adjacent to the Central Processing Department (CPD). Showers are also located in the Ambulatory Surgery Center and in the Family Medicine Center (Manning Drive).

d. Disposal of Sharps

i. Plan safe handling and disposal of sharps before beginning any procedure using sharps (e.g., needles, scalpel blades, phlebotomy needles, etc.).

ii. Sharps disposal should occur as close to the point of use as possible by the person using the sharp.

iii. Do not pass sharp instruments from hand to hand unless the specific procedure requires continuous focus.

iv. Pass sharp instruments using either a neutral zone or in a suitable container to decrease the possibility of injury from sharp, contaminated objects.

v. Do not shear, bend, recap, or remove contaminated needles and other contaminated sharps unless it can be demonstrated that there is no feasible alternative or the action is required for a specific medical procedure. Recapping or needle removal 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.

vi. The user should discard sharps immediately after use, or as soon as possible, in containers that are closeable, puncture resistant, and leak-resistant on sides and bottom.

vii. Sharps Containers

- Containers are labeled with a BIOHAZARD label.
- Containers will be easily accessible and located as close as possible to the immediate area where sharps are used or can be reasonably anticipated to be found.
- To prevent needle-stick injuries, wall mounted sharps containers will be affixed with the opening 52" - 56" from the floor, so the opening may be observed for protruding sharp objects.
- The sharps containers will be secured upright throughout use and be routinely replaced when 2/3 to 3/4 full and not be allowed to overfill.
- The replacement of full sharps containers is a joint responsibility between Nursing and Environmental Services.
- Close and lock the sharps container immediately prior to removal to prevent spillage or protrusion of contents during handling, storage, or transporting.
- Closed sharps containers are to be placed in a regulated medical waste containers. Environmental Services staff will remove sealed boxes from the clinic areas.

e. UNCMC HCP should not retrieve objects from biohazard waste containers. Supervisors should not instruct HCP to retrieve objects from biohazard waste containers.

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

treatment rooms).

g. Food and drink are not kept in refrigerators, freezers, shelves, cabinets, or on counter-tops or work bench tops or in other storage areas where blood or OPIM are present.

h. All procedures involving blood or OPIM shall be performed 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. Specimens of blood or OPIM shall be placed in a container that prevents leakage during collection, handling, processing, storage, transport, or shipping. If outside contamination of the primary container occurs, decontaminate the container with an approved EPA-registered disinfectant prior to delivering to the lab. Specimens shall be placed in a secondary container (e.g., bath basin, specimen bag, robot, cooler) labeled with a BIOHAZARD label when being transported. Refer to the Plant Engineering policy: Pneumatic Tube Transport System - Computerized Tube System (CTS), for sending specimens to the lab in this manner. Specimens that leave the premises 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. If the equipment cannot be decontaminated, a BIOHAZARD label must be attached to the equipment, stating which portions remain contaminated. Items must be appropriately cleaned after maintenance and prior to patient use.

l. Patient forms that have been stained with blood or body fluids must be placed in a clear fluid impermeable bag, scanned into the electronic medical record, and then discarded. Do not attempt to sterilize paper and do not place paper contaminated with OPIM in a patient's physical medical record. The clean photocopy of the document can be scanned into the patient's medical record.

m. While transporting deceased patients Standard Precautions must be maintained. According to the North Carolina State Law (10A NCAC 41A .0212) for the handling and transporting of deceased individuals, "*Persons handling the body of any person who died and is known to be infected with HIV or hepatitis B or any person who died and is known or reasonably suspected to be infected with Jakob-Creutzfeldt or rabies shall be provided written notification to observe blood and body fluid precautions*."

n. *"Persons handling the body of any person who died and is known to be*

infected with COVID-19 shall be provided written, verbal, or electronic notification to observe the COVID-19 guidance for funeral home workers published by the United States Centers for Disease Control and Prevention."

4. Personal Protective Equipment

    a. Personal protective equipment (PPE) is used by HCP to provide for protection against a hazard such as blood or OPIM. It is the employer's responsibility to provide PPE. PPE consists of specialized clothing or equipment worn by HCP such as gloves, fluid-resistant gowns, lab coats, aprons, masks, face shields, and protective eye wear. All personnel must routinely use PPE when there is a potential for exposure to blood or other potentially infectious materials. PPE in the appropriate size is readily 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 OHS.

    b. All PPE is removed prior to leaving the patient care or work area, except for in containment areas, where HCP must follow signage directing them for PPE donning and doffing processes. When PPE is removed, it is placed in an appropriately designated area for storage, washing, decontamination or disposal. Disposable PPE should be discarded in the trash.

    c. All reusable PPE (e.g., utility gloves) must be decontaminated (use an EPA-registered disinfectant) prior to re-use if the integrity of the PPE is not compromised. 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, the PPE must be discarded.

    d. Types of PPE

        i. Gloves

            - Nitrile or non-latex gloves must be worn when it can be reasonably anticipated that the HCP may have hand contact with blood, OPIM, mucous membranes, non-intact skin, and when performing vascular access procedures. Employees with skin or systemic reactions to latex**,** nitrile, or hand hygiene agents must be evaluated by their Occupational Health Service for alternatives.
            - Disposable single-use gloves must be changed as soon as practical when contaminated, torn, punctured, or when their ability to function as a barrier is compromised.

- Disposable single-use gloves are not to be washed or disinfected for reuse, except for in containment areas, where HCP must follow signage directing them for PPE donning and doffing processes.
- Gloves must be changed after contact with each patient/patient environment. Hand hygiene with soap and water or with ABHR should be used after glove removal.
- Change gloves and perform hand hygiene during patient care when moving from a contaminated site to a clean site.
- When used for irritant contact dermatitis (ICD), cotton glove liners should be replaced at the beginning of each shift with a clean pair. If they become contaminated with blood or OPIM or become generally soiled in appearance, they should be removed promptly and replaced.
- Gloves should be removed and hand hygiene performed before touching clean, shared environmental surfaces (e.g., computer keyboards and telephones in common areas).
- 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.

ii. Masks, eye protection or face shields

- Masks and eye protection, or face shields will be worn whenever splash, spray, splatter, 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).
- Prescription eyeglasses are not to be used as eye protection. Healthcare facility approved eye protection must be used in addition to prescription eyeglasses when required.
- Protective eyewear must be worn by all persons

(including those wearing contact lenses) when there is a reasonably anticipated potential for eye contamination.

iii. Gowns

- Gowns, aprons and other protective body clothing should be worn in occupational exposure situations. The type and characteristics will depend on the task and the degree of exposure anticipated. Appropriate protective clothing must prevent contamination of HCP's skin or clothing by blood or OPIM. For example, fluid-resistant PPE must be worn when it is reasonably anticipated that there would be sufficient blood exposure (e.g., spraying) that it would pass through to or reach the skin, eyes, mouth, or other mucous membranes under normal conditions of use. Waterproof gowns are available for use (e.g., blue plastic gown). A non-fluid resistant gown (i.e., yellow isolation gown) may be worn in all other procedures.
- If personal protective equipment (garment) is penetrated by blood or OPIM, the garment must be removed immediately or as soon as possible and placed in the appropriate container for disposal, storage, washing, or decontamination. The HCP must remove contaminated PPE in such a way as to avoid contact with the contaminated portions.
- Scrubs are not personal protective equipment.

iv. Contaminated Personal Clothing/Scrubs

i. Personal clothing/scrubs contaminated with blood or OPIM must not be taken home for laundering. The same care shall be exercised in the handling of contaminated personal clothing as the PPE handling described above.

ii. If personal clothing/scrubs is contaminated, contact the Central Distribution (CD) Main at 984-974-4306 and ask for the Supply Chain Supervisor or the Supply Chain Supervisor on-call to obtain a set of loaner scrubs. A designated HCP and not the HCP who sustained a blood/OPIM/body fluid exposure to personal clothing should go to pick up a new set of scrubs.

iii. Clean scrubs can be obtained through the method outlined above for UNCMC. Reimbursement for personal

clothing/scrubs contaminated with blood or OPIM may be discussed with the HCP's department. University employees should remove contaminated personal clothing following the above recommendations for removal of PPE and notify their supervisor.

iv. 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).

5. Sterilization, Disinfection, and Housekeeping

a. Standard sterilization and disinfection procedures for patient care equipment are adequate to sterilize or disinfect instruments, devices, or other items contaminated with blood or OPIM. (Refer to Infection Prevention policies: High-Level Disinfection (HLD) - Manual Reprocessing of Reusable Semi-Critical Medical Devices and Sterilization of Reusable Patient-Care Items.

- An EPA-registered disinfectant or a bleach disinfectant wipe must be used to decontaminate non-critical devices or equipment (that has contact with intact skin) after blood or OPIM contamination per manufacturer's instructions for use. Refer to Infection Prevention policy: Cleaning and Disinfection of Non-Critical Items.

NOTE:	If Creutzfeldt-Jakob Disease is suspected or confirmed, follow Infection Prevention policy: Creutzfeldt-Jakob Disease (CJD)

b. All equipment and environmental work surfaces will be cleaned and decontaminated after contact with blood or OPIM and at the end of the work shift if the surface may have become contaminated during the shift.

c. Blood and body fluid spills should be cleaned using a bleach disinfectant wipe or an EPA-registered disinfectant may be used for decontaminating small (<10 mL) spills of blood or OPIM. Strategies for decontaminating spills of blood and other body fluids in a patient-care setting are different than for spills of cultures or other materials in clinical, public health, or research laboratories. In both settings, gloves will be 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 an EPA-registered disinfectant before cleaning, and then decontaminated again with the EPA-registered disinfectant.

d. Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, will be removed and replaced when they become overtly contaminated, between patients, and at the end of the work shift if they may have become contaminated during the shift.

e. All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or OPIM will be inspected and decontaminated on a regularly scheduled basis, cleaned and decontaminated immediately, and/or as soon as feasible upon visible contamination.

f. Broken glassware, razors or other sharp items that may be contaminated will not be picked up directly with the hands. It will be picked up using mechanical means, such as a brush and dustpan, tongs or forceps, and the broken glass will be placed in a rigid container (e.g., sharps container) for disposal.

g. If a wet vacuum is used for removing large spills of liquid, it must be disinfected with an EPA-registered disinfectant after use.

6. Regulated Medical Waste

a. Regulated medical waste is handled in accordance with federal, state, and local laws and Infection Prevention policy: Guidelines for Disposal of Regulated Medical Waste and UNC-CH Medical Waste Disposal Procedures for Campus Health and the School of Dentistry.

b. North Carolina regulates three types of medical waste:

i. Microbiology laboratory waste

ii. Pathology waste

iii. Blood specimens or blood products in quantities greater than 20 mL per unit container.

c. 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.

d. The regulated medical waste at UNCMC is placed into a red bag and treated in compliance with state regulations (e.g., incinerated).

e. In university medical facilities, regulated medical waste is placed in a biohazard/medical waste box that is lined with a red bag. When the box is filled to a reasonable level, the bag is tied and the box top is closed and secured. Clinic staff members are responsible for the closing and securing of medical waste boxes. Environmental Services 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.

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

7. Laundry

a. 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 storage and processing of clean and soiled linen are recommended.

b. 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 Infection Prevention policy: Laundry and Linen Service for details.

D. Occupational Health Service

1. Exposure Reporting

a. Introduction

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

- Exposed skin and any puncture sites should be thoroughly washed with soap and water.
- Eyes are to be rinsed thoroughly with water at an eyewash station or if a station is not available, using sterile saline, eye irrigation, or clean water. The eyes should be flushed for a minimum of five minutes.
- If the mouth is exposed, rinse/flush with clean water.
- The application of caustic agents (e.g., bleach) or the injection of antiseptics or disinfectants into the wound is not recommended.

ii. Current protocols for HIV post-exposure prophylaxis (HIV PEP) necessitate immediate reporting of occupational exposures so that administration of antiretroviral prophylaxis can be promptly initiated when indicated. Current Centers for Disease Control (CDC) and National Institute of Health (NIH) recommendations advise that antiretroviral prophylaxis be started within 24 hours of the exposure.

iii. HCP should call ahead to their occupational health provider to initiate the post-exposure evaluation immediately after injury.

b. Reporting an Exposure

i. All UNC Medical Center HCP, including those working off site are to report exposures to Occupational Health Service Needlestick Hotline (NHL) at 984-974-4480.

- HCP of UNC Medical Center must complete a SAFE report and call the Needlestick Hotline at 984-974-4480. This service is provided 24 hours per day, 7 days per week by UNC Medical Center Occupational Health Service. They will be provided with immediate evaluation and timely treatment of the potential exposure.
- HCP should refer to the Bloodborne Pathogen Exposure (BBPE) protocol found on the Occupational Health Services (OHS) website on the UNC Medical Center Intranet. This protocol is reviewed annually to comply with the Exposure Control Plan for Bloodborne Pathogens and OSHA Bloodborne Pathogen Standard.

ii. University Employees

- Employees of the University are to call University Employee Occupational Health Clinic (UEOHC) at 919-966-9119 (7 days/week, 24 hours/day). University HCP should refer to the HIV Post Exposure Protocol (Bloodborne Pathogen Exposure Protocol) on the UNC Health Care Intranet for additional information.

iii. Students (including Visiting Medical Students)

- Students should call UNC Campus Health at 919-966-6573 to speak with a registered nurse about any exposures. On nights and weekends, this number is forwarded to UNC HealthLink who will be able to contact the House Supervisor and Campus Health Duty Doctor

on call.

- Please refer to Attachment 5: Bloodborne Pathogen Exposure - Mode of Operations for Campus Health Services. Information is also available on the CHS website: https://campushealth.unc.edu/urgent-needs/.

iv. Contract Personnel (e.g., Traveling Nurses)

- Contract personnel must report the exposure to their employer and then contact the Emergency Department (ED) for evaluation and possible treatment for high-risk exposure unless a prior agreement for service with OHS has been established.

v. Trainees Not Affiliated with UNC

- Trainees not affiliated with UNC must report the exposure to their clinical instructor/school. They will be referred to the Emergency Department.

vi. Following an exposure incident

- Following an exposure incident, the occupational healthcare provider (OHP) will provide the HCP with an exposure evaluation report regarding the incident. HCP will also be provided with a Health Care Professional Written Opinion for Hepatitis B Vaccine within 15 days from the time of report. The employer will bear the costs, including costs for HCP who must travel away from the work site for medical procedures and evaluations. Medical procedures and evaluations must be convenient to the HCP and normally be offered during HCP's scheduled work hours. HCP who work off site and who experience an exposure as defined in this document should first call the Needlestick Hotline (984-974-4480) and then refer to the OHS Blood Exposure Protocol on the UNC Medical Center Intranet.

- A sharps injury log is maintained by UNC Medical Center Occupational Health Service and the OSHA 300 Log is maintained by the Environmental Health and Safety office. 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.

- For HCP of UNC Medical Center, these records are kept and maintained by the Occupational Health Service. University HCP records are kept at University Employee Occupational Health Clinic (UEOHC). Records are not disclosed or reported without the HCP's expressed written consent to any person within or outside the workplace except as required by law. HCP medical records are kept for at least the duration of employment plus 30 years.

2. Management of Hepatitis B Virus
(Refer to Occupational Health Services policy: HBV/HIV Infections)

    a. Definition of Exposure

        - HCP 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 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
            - HCP has had parenteral exposure to or mucosal membrane contact with a contaminated body fluid. Such fluids include 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).
            - HCP have received a bite that breaks the skin. Please report to Occupational Health Services (OHS) for evaluation.

    b. Pre-Exposure Prophylaxis

        i. Hepatitis B vaccine will be offered to all HCP (unless

contraindicated) who have potential exposure to blood, blood products, or body fluids that may contain blood. Immunity to hepatitis B virus is strongly encouraged for all at risk HCP. However, HCP may decline hepatitis B immunization by signing the Hepatitis B Vaccine Declination form (Attachment 3 - Hepatitis B Declination Form and Informed Refusal). Hepatitis B immunization will be provided to at risk HCP at no charge. Hepatitis B vaccination must be made available after the employee has received information and training regarding the vaccine.

ii. The standard immunization schedule and follow-up with anti-HBsAg titers as designated by the CDC's Advisory Committee on Immunization Practices (ACIP) will be followed.

iii. For newly hired HCP without evidence of post vaccine serologic testing, an anti-HBsAg titer should be offered per CDC/ACIP algorithm.

iv. HBV vaccine will be provided to HCP during working hours (on the clock). HCP traveling from remote work sites (not home) will be reimbursed for travel or allowed to use a State vehicle.

c. Post-Exposure Prophylaxis

- Post-exposure prophylaxis will be offered if indicated (unless contraindicated) to all HCP with an exposure as recommended by CDC and ACIP. 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 titer), and vaccination status of the exposed person. Post-exposure prophylaxis may include HBIG and/or additional doses of hepatitis B vaccine.

d. Evaluation of HCP with Acute Hepatitis B Infection

- If the infection resulted from occupational exposure, primary care will be provided by the HCP's OHP. 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. HCP with acute hepatitis B infection will be sent home on sick leave during the acute infection (jaundice). All such HCP 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 occupational exposure. All cases will be reported to the NC State Health Department, as per NC

State regulations. Prior to returning to work all HCP who have had acute infection, must receive medical clearance per OHP protocols.

3. Management of Hepatitis C Virus

    a. Definition of Exposure

        - HCP will be defined as having been occupationally exposed to HCV under the following conditions: The source is HCV antibody positive and/or HCV PCR positive AND one of the 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 a bloody body fluid.
            - 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.
            - HCP has had parenteral exposure to or mucosal membrane contact with a contaminated body fluid. Such fluids include 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).
            - HCP has received a bite that breaks the skin. (Please refer to OHS Protocol: Management of Human Bites.)

    b. Pre-Exposure Prophylaxis

        - None Available

    c. Post-Exposure Prophylaxis

        - None Available

    d. Evaluation of HCP to HCV positive persons will be managed per the most recent CDC guidelines

    e. Evaluation of HCP with Acute Hepatitis C Infection

        i. If the infection resulted from occupational exposure, primary care

will be provided by the employee's Occupational Health Service. 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. HCP with acute hepatitis C infection will be sent home on sick leave during the acute infection (jaundice). All such HCP 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 occupational exposure. All cases will be reported to the State, as per State regulations.

ii. Prior to returning to work all HCP who have had acute infection must receive medical clearance per OHP protocols. HCP will be followed for at least one year to determine if they have developed chronic hepatitis C infection.

4. Management of Bloodborne Exposures to HIV
(refer to the Occupational Health Services policy: HBV/HIV Infections)

a. Definition of Exposure

- HCP will be defined as having been occupationally exposed to HIV under the following conditions: The source is HIV-positive (HIV Ag/Ab combo 4th generation test positive, AND one of following has occurred.
    - 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).
    - 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).
    - The HCP has had parenteral exposure to or mucosal membrane contact with saliva during a dental procedure.
    - HCP has received a bite that breaks the skin.
    - 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.

b. Prophylactic Therapy of Exposed HCP

- UNC Medical Center will make anti-retroviral medication available at no cost to HCP who meet CDC criteria for an exposure warranting PEP. PEP will be provided per CDC and NIH PEP guidelines. 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).

5. Healthcare personnel will be defined as having NOT been occupationally exposed to HIV, HBV, or HCV under the following conditions:
    a. The source is HIV, HBV, HCV negative even if the source is a member of a group at high risk of infection.
    b. Inhalation or possible inhalation of microscopic blood or body fluids.
    c. Contact of intact skin with contaminated blood or body fluid.
    d. Percutaneous injury with a non-contaminated sharp.
    e. Parenteral exposure or mucous membrane contact with saliva, sputum, tears, human milk, urine, or feces, in which there is no visible blood.
6. HCP who are under investigation by the Controlled Substances Assessment Team for drug diversion by injectable mechanism will be asked to submit to voluntary HIV, Hepatitis B, and Hepatitis C testing to ensure they would not be the source of exposure to patients.

E. Determination of HCP with Reasonably Anticipated Occupational Exposure

Each manager will review their list of job classifications to identify which HCP in those positions have reasonably anticipated occupational exposure. (See Attachment 2: Job Classification with Reasonably Anticipated Occupational Exposure for job classification listing.)

F. Training and Record Keeping

1. Purpose
    - The purpose of this document is to provide an outline for the training of all occupationally exposed HCP to ensure that all elements of training are addressed in educational programs.

2. Policy

    - HCP 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. If an employee is only proficient in a foreign language, the trainer or an interpreter must convey the information in that foreign language. 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 Bloodborne Pathogens to contract HCP.

3. General Information

    a. The OSHA-required training is a condition of employment for all HCP of the UNC Medical Center and University. Each department manager must ensure that all HCP identified as having potential occupational exposure participate in a training program. Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

    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 HCP's risk for occupational exposure.

    c. Training can be accomplished via a variety of mechanisms. The majority of Medical Center HCP utilize a self-instructional module located on the Learning Made Simple (LMS). HCP in designated departments (e.g., Environmental Services) receive training from the Departmental Safety Coordinators (DSC) or Interpreters who use written material with post-test or videotapes. An Infection Preventionist is available 24/7, by paging the Infection Preventionist on-call through the hospital directory to address questions regarding the training. For University employees, the UNC-CH Department of Environment, Health and Safety conducts training sessions at the request of departments that include all the required educational elements. HCP may also elect to use the self-study training for bloodborne pathogens located on the EHS website.

4. Training Elements

    - The training must contain the following elements:

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

        ii. A general explanation of the epidemiology and symptoms of

bloodborne diseases.

iii. HIV and HBV must be described. Employer must convey that a number of other bloodborne diseases exist (e.g. hepatitis C and syphilis).

iv. An explanation of the modes of transmission of bloodborne 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 signs and labels and color-coding used at UNC Medical Center.

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 must be maintained for three years from the date on which the training occurred. For employees of the Medical Center, records are kept by each individual department. For University employees, documentation is kept at the UNC-CH Department of Environment, Health and Safety.

IV. References

Occupational Safety and Health Administration. Occupational exposure to bloodborne pathogens; Final rule (29 CFR Part 1910.1030). Federal Register 2001; 66:5317-5325. Also available via link: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10051

Shenoy ES, Weber DJ. Occupational Health Update: Evaluation and Management of Exposures and Postexposure Prophylaxis. Infect Dis Clin North Am. 2021 Sep;35(3):735-754.

Shenoy ES, Weber DJ. Occupational Health Update: Approach to Evaluation of Health Care Personnel and Preexposure Prophylaxis. Infect Dis Clin North Am. 2021 Sep;35(3):717-734.

CDC guidelines on Viral Hepatitis. https://www.cdc.gov/hepatitis/index.htm. (Page last updated: September 27, 2021).

CDC. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis. June 29, 2001, Vol 50. No.RR11; 1.

Kuhar DT, Henderson DK, Struble KA, et al. Updated U.S. Public Health Service guidelines for the management of occupational exposures to HIV and recommendations for postexposure prophylaxis. 9/25/2013 Update (May 23, 2018). Available at: https://stacks.cdc.gov/view/cdc/20711.

Schillie S, Harris A, Link-Gelles R, et al. Recommendations of the Advisory Committee on Immunization Practices for Use of a Hepatitis B Vaccine with a Novel Adjuvant. MMWR 2018;67:455-458.

Schillie S, Vellozzi C, Reingold A, et al. Prevention of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices. MMWR Recomm Rep 2018;67(No. RR-1):1-31. DOI: http://dx.doi.org/10.15585/mmwr.rr6701a1.

North Carolina Administrative Code. (2018, Amended October 1, 2021). *Handling and Transportation of Bodies* (10A 41A .0212).

Moorman AC, de Perio MA, Goldschmidt R, et al. Testing and Clinical Management of Health Care Personnel Potentially Exposed to Hepatitis C Virus - CDC Guidance, United States, 2020. MMWR Recomm Rep 2020;69(no. RR-6):1-8. DOI: http://dx.doi.org/10.15585/mmwr.rr6906a1.

National Institutes of Health. HIV Prevention: Post-Exposure Prophylsaxis. Last updated 19 Aug 2021. Available at: https://hivinfo.nih.gov/understanding-hiv/fact-sheets/post-exposure-prophylaxis-pep. Accessed: 3/17/21.

V. Related Policies

Environmental Health and Safety Policy: Emergency Eyewash and Shower Equipment

Infection Prevention Policy: Cleaning, Disinfection, and Sterilization of Patient-Care Items

Infection Prevention Policy: Creutzfeldt-Jakob Disease (CJD)

Infection Prevention Policy: Guidelines for Disposal of Regulated Medical Waste

Infection Prevention Policy: Hand Hygiene and Use of Antiseptics for Skin Preparation

Infection Prevention Policy: High-Level Disinfection (HLD) - Manual Reprocessing of Reusable Semi-Critical Medical Devices

Infection Prevention Policy: Laundry and Linen Service

Occupational Health Services Policy: HBV/HIV Infections

Plant Engineering Policy: Pneumatic Tube Transport System - Computerized Tube System (CTS)

Attachments

01: Definitions

02: Job Classifications with Reasonably Anticipated Occupational Exposure

03: Hepatitis B Vaccine Decliniation for UNC Employees

04: UNC-CH Committee Review of Engineering and Work Practice Controls/Sharps Safety Devices in Use and Under Evaluation for the UNC School of Dentistry and Campus Health Services

05: Bloodborne Pathogen Exposure - Mode of Operation for Campus Health Services

Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Kimberly Novak-Jones: Nurse Educator	06/2022
	Thomas Ivester: CMO/VP Medical Affairs	06/2022
	Emily Vavalle: Dir Epidemiology	06/2022
	Sherie Goldbach: Project Coordinator	06/2022