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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 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. Employees of the medical complex may have duties in more than one facility; therefore, this exposure control plan is designed for all employees of UNC Health Care (UNC Hospitals, Hillsborough Hospital, the Ambulatory Surgical Center, UNC Health Care administrative offices and community based outpatient facilities) and the UNC-Chapel Hill Campus Health Services and the School of Dentistry.
2. UNC Health Care and UNC-CH facilities each have an Occupational Health Provider (OHP).
    - UNC Healthcare employees receive services through the UNC Hospitals Occupational Health Service (OHS) located in Room 1088, 1st floor West Wing (UNCMH).
    - Hillsborough Hospital (HBH) employees receive services through Hillsborough Occupational Health Service (OHS) located on 1st floor on Mondays, 7:30am-12:00pm; Wednesdays, 7:30am-11:15am and Fridays, 07:30am-12:00pm. OHS at UNC main campus is available when HBH OHS is closed.
    - OHS will provide TB skin testing (TST), immunization screening, vaccine administration and care of non-emergent conditions/injury. HCP with emergencies should report to the ED.
    - University employees receive services through the University Employee Occupational Health Clinic (UEOHC) located on the 2nd floor of the AHEAC Building, 145 North Medical Drive.
    - UNC dental, medical and other UNC health students (including visiting students such as a visiting medical student who has 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)

receive services through Campus Health Services, James A. Taylor Building, 320 Emergency Room Drive.

- Non-UNC students should contact their primary school.

3. Employees who have duties within other healthcare facilities must comply with the provisions of the Exposure Control Plan for that facility. However, these employees are to obtain routine occupational health services through their employer's occupational health service (i.e., UNC Hospitals Occupational Health Service or University Employee Occupational Health Clinic).
4. 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 employees with blood or body fluid exposures should contact their employer and be evaluated by the ED at UNC Health Care unless a prior agreement for service with OHS has been established.
5. UNC Health Care employees may obtain a copy of the Exposure Control Plan via the Infection Control website on the Intranet @ Work or by contacting Hospital Epidemiology at 984-974-7500. University employees may obtain a copy via the UNC-CH Environmental 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. The OSHA document, Occupational Exposure to Bloodborne Pathogens; Final Rule, is available on OSHA's website (www.osha.gov).

B. Responsibility

1. **Hospital Epidemiology/University Department of Environmental, Health and Safety (EHS)**
   a. Review Exposure Control Plan and revise as needed.
   b. Identify list of job classifications with occupational exposure.
   c. Provide ongoing consultation regarding implementation of OSHA's final rule on Occupational Exposure to Bloodborne Pathogens.
   d. Develop and coordinate educational programs.
   e. Assist with evaluation when non-compliance is reported. (Noncompliance with bloodborne pathogen regulations by Health Care System Employees, House Staff and Attending's should be documented by completing an Employee Incident Report.
   f. Assist with the selection and evaluation of current safety devices. (See Appendix 10.)
2. **UNC Hospitals Occupational Health Service/University Employee Occupational Health Clinic**
   a. Review Exposure Control Plan.
   b. Review and continue to implement Hepatitis B Immunization Program.
   c. Maintain records regarding Hepatitis B Immunization Program.
   d. Review and continue post-exposure follow-up.
   e. Maintain documentation of exposure and follow-up as required by the OSHA final rule.
   f. Sharps log for UNC Hospitals' employees is maintained in Environmental Health and Safety and OHS. For University employees, the sharps log is maintained in the University Employee

Occupational Health Clinic.

3. **Department Managers and Supervisors**
    a. Annually review list of all job classifications and identify job classifications in which employees in those positions have reasonably anticipated occupational exposure.
    b. Ensure and document employee orientation and annual training.
    c. Ensure personal protective equipment and other necessary supplies are available in accessible locations.
    d. Evaluate compliance
        i. Include compliance with OSHA's final rule into the employee's performance evaluation.
        ii. Initiate and document disciplinary action for continued non-compliance.
    e. Ensure that suitable education/training programs are provided to employees by a 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.
    f. Ensure that appropriate safety devices are stocked in their departments and staff have been trained in their use (e.g., via unit-based sharp device trainers).
    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 Environmental Health and Safety Department/UNC-CH Department of Environment, Health and Safety.
4. **Value Analysis Medical Supplies-Chapel Hill (formerly: Product Management Committee/Materials Management)**
    a. Oversee the selection and evaluation of safety devices.
5. **Oversight Committee**
    a. Hospital Infection Control Committee
        i. The Hospital Infection Control Committee will serve as the Oversight Committee for the review/ revision of the Exposure Control Plan for Bloodborne Pathogens.
6. **Occupationally-Exposed Employees**
    a. Know what tasks they perform that cause occupational exposure.
    b. Participate in the bloodborne pathogens training module annually via the Learning Made Simple or UNC-CH Department of Environment, Health and Safety training.
    c. Plan and conduct all operations in accordance with the Hospitals' and University engineering controls, work practice controls, and the use of PPE.
    d. Employees who sustain an exposure incident must report the incident to their supervisor and follow up with the appropriate occupational health provider.
    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 employees who have occupational exposure to blood or other potentially infectious materials (OPIM): see OPIM definition Attachment 1: Definitions. Standard Precautions (SP) refers to practicing blood and body fluid precautions for all patients. SP shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Engineering and work practice controls are used to eliminate or minimize employee exposure to bloodborne pathogens or OPIM. Where occupational exposure remains after institution of these controls, personal protective equipment is also used.

1. Engineering and Work Practice Controls
   One of the key aspects of the Exposure Control Plan is the required use of engineering controls as a primary means to eliminate or minimize employee exposure to bloodborne pathogens. As a result, the health care system employs equipment such as sharps disposal containers, needleless IV systems, self-sheathing needles and biologic safety cabinets as appropriate.
   Value Analysis Medical Supplies-Chapel Hill, the Infection Control Committee, the Environmental Health and Safety Committee, and the Safety Device Committee work with department managers and employees to review tasks and procedures performed in our facility where engineering controls can be implemented or updated. This is a dynamic and ongoing process that ensures the implementation of new engineering controls when identified as appropriate. Departmental managers are responsible for assessing their area's needs on a continuing basis. Once an engineering control has been institutionally introduced and employee training has occurred, the engineering control should be used unless there are medical reasons that would contraindicate its use.
   If nursing and/or medical staff believe engineering control is contraindicated, staff will document the reason in writing and submit this to Hospital Epidemiology for review and possible exclusion.
   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 Materials Management to ensure consideration and implementation of appropriate commercially available and effective safer medical devices has occurred.
   Work practice controls are followed to help eliminate or minimize employee exposure to bloodborne pathogens. Oversight and implementation of work practice controls are performed by the department manager who works in conjunction with the Hospitals' infection prevention staff and safety personnel.

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

      i. Hands and other skin surfaces must be washed with soap and water immediately or as soon as feasible if contaminated with blood or OPIM.

      ii. Hand hygiene must be performed immediately or as soon as feasible after gloves or other personal protective equipment (PPE) is removed.

      iii. Refer to Infection Control Policy "Hand Hygiene and Use of Antiseptics for Skin Preparation" located on the Infection Control website.

      iv. Personnel who have hand dermatitis or allergies associated with hand hygiene agents, gloves or other products are required to be evaluated by their Occupational Health Provider (OHP).

v. Personnel having exudative lesions or weeping dermatitis on the hands will be excluded from all direct patient care and from handling patient-care equipment until the condition resolves. The OHP must be consulted to evaluate and advise in this matter.

b. Hand lotions/creams must be compatible with both the antimicrobial agent and use of nitrile gloves.

i. Some lotions and creams interfere with the effectiveness of the antimicrobial handwashing agents.

ii. HCP using a personally purchased product should use products which appear on the approved hand lotion list. This list is found on the Infection Control website under "Frequently Requested Information." Compatible lotion may be ordered from Central Distribution (Lawson #050939) and should be available for use in clinical areas.

iii. The Maintenance Department will install the hand lotion dispenser when requested.

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

i. Employees 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. Eye wash stations are located in multiple clinical areas of UNC Health Care and the School of Dentistry. Employees should learn the location of the nearest eyewash station in their assigned work area. Additionally, UNC Hospitals' Occupational Health Clinic has an approved eye wash station, located on 1st floor West Wing, Room 1088, exam room 1.

iii. Shower facilities are available within the Hospitals for the employee who encounters exposure to blood or OPIM. Showers are located in the Hospitals in the Emergency Department, in Perioperative Services (Main hospital as well as Women 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.

d. Disposal of Sharps

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

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

iii. Sharp instruments will not be passed from hand to hand unless the specific procedure requires continuous focus. It is the responsibility of the surgeon(s) and scrub nurse/tech(s) to safely pass instruments.

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

v. Contaminated needles and other contaminated sharps are not sheared, bent, recapped, or removed unless it can be demonstrated that there is no feasible alternative or the action is required for a specific medical procedure. In these situations the recapping or needle removing is accomplished through a mechanical device or a one-handed technique. This can be accomplished by placing the cover (cap) on a flat surface and sliding the needle into it, using a

hemostat to hold the cap or obtaining a commercial needle recapping device. Two-handed recapping of needles is prohibited. Contaminated phlebotomy needles and tube holders are not to be separated and are discarded as a unit. The tube holders are not to be reused.

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

vii. Sharps Containers

1. Containers are labeled with a BIOHAZARD label.
2. Containers for sharps 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.
3. To prevent needle-stick injuries, wall mounted sharps containers will be affixed no higher than 4.5 feet from the floor so the opening may be observed for protruding sharp objects.
4. The sharps containers will be secured upright throughout use and be routinely replaced when ¾ full and not be allowed to overfill.
5. The replacement of full sharps containers is a joint responsibility between Nursing and Environmental Services.
6. When removing containers of sharps from the area of use, the container will be closed and locked immediately prior to removal to prevent spillage or protrusion of contents during handling, storage, or transporting.
7. Within the Hospitals, closed sharps containers are to be placed in the red bag waste located in the soiled utility room. In Ambulatory Surgery Center, Campus Health Services, Community Based Clinics and the School of Dentistry the sharps container top is closed and locked securely and the container placed in a Biohazard/Medical waste box which is lined with a red bag. ASC staff is responsible for securing and placing sharps containers in the biohazard waste boxes. Housekeeping staff will remove sealed boxes from the clinic areas.

e. UNC Health Care Personnel should not retrieve objects from biohazard waste containers. Supervisors should not instruct employees to retrieve objects from biohazard waste containers. Biohazard waste containers refer to not only sharps disposal containers but any trash bins lined with red biohazard labeled bags.

f. Reusable Instruments

i. In identified areas in the hospitals (e.g., Emergency Department, NCCC, Perioperative Services), reusable instruments (e.g., large bore needles, scalpels, saws) and sharps that are contaminated with blood or OPIM will be washed or rinsed to remove blood and proteinaceous material and then placed in the container designated for Central Processing Department (CPD).

1. When washing reusable instruments, appropriate PPE must be worn and mechanical means used to handle the sharps. Reusable large bore needles must be flushed immediately after use and prior to washing. Washing will be done immediately or as soon as possible after use.
2. Some designated units have CPD containers which are puncture resistant, labeled with a

BIOHAZARD label, and are leak-resistant on sides and bottom. Sharps will be removed using tongs or forceps. The employee should not reach by hand into the container to remove contaminated sharps. If the sharps are in a basin covered with water, the solution should be drained from the basin before removing items with tongs.

g. 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 room). Employees are permitted to eat and drink in an ambulance cab; however, this must be done in an area separate from patients and contaminated material.

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

i. 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.

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

k. 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, the primary container must be decontaminated with an approved disinfectant prior to delivering to the lab. Specimens shall be placed in a secondary container (e.g., green bath basin, specimen bag, robot, cooler) labeled with a BIOHAZARD label when being transported. Refer to the UNC Health Care Administrative Policy,"Usage of the Computerized Tube System," for sending specimens to the lab in this manner. Specimens that leave the hospital must be labeled with a BIOHAZARD label.

l. 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.

m. A patient's medical record that has been stained with blood or body fluids must be handled according to Appendix 2 in the Central Processing Department (CPD) and Other Surgical Services Support Areas Using Sterilizers or Storing CPD Sterilized Items Policy ("Procedure for Handling Stained Medical Records").

n. While transporting deceased patients Standard Precautions must be maintained. According to the North Carolina State Law (15A NCAC 19A .0212) for the handling and transporting of deceased individuals, "Persons handling bodies of persons who died and were known to have HIV infection, hepatitis B infection, Creutzfeldt-Jakob disease or rabies shall be provided written notification to observe blood and body fluid precautions."

2. Personal Protective Equipment

Personal protective equipment (PPE) is used by employees to provide for protection against a hazard such as blood or OPIM. It is the employer's responsibility to provide PPE, and to clean, maintain, and/or dispose of it.

PPE consists of specialized clothing or equipment worn by the employee such as gloves, fluid-resistant gowns, masks, and protective eyewear. 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.

a. To minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags or other ventilation devices are strategically located throughout the Hospitals, clinics, University medical facilities and Community Practices.

b. All PPE is removed prior to leaving the work area. When PPE is removed, it is placed in an appropriately designated area for storage, washing, decontamination or disposal. Disposable PPE should be discarded in the white trash bags displaying a BIOHAZARD label.

c. All reusable PPE (e.g., utility gloves) must be decontaminated (use an EPA-registered disinfectant detergent) prior to re-use if the integrity of the PPE is not compromised. However, if the PPE is cracked, peeling, torn, punctured, or exhibits other signs of deterioration or when its ability to function as a barrier is compromised, the PPE must be discarded.

d. Types of PPE

    i. Gloves

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

        2. 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.

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

        4. Gloves must be changed after contact with each patient/patient environment. Hand hygiene with soap and water or with an alcohol-based antiseptic hand rub should be used after glove removal.

        5. Change gloves and decontaminate hands during patient care when moving from a contaminated site to a clean site.

        6. 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.

        7. Gloves should be removed and hand hygiene performed before touching clean, shared environmental surfaces (e.g., computer keyboards and telephones in common areas).

        8. 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.
        (Refer to Attachment 3: "Infection Control Capability of Gloves.")

e. Masks, eye protection or face shields

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

ii. Protective eyewear must be worn by all persons (including those wearing contact lenses) when there is a reasonably anticipated potential for eye contamination.

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

f. Gowns

i. 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 an employee's skin or clothing by blood or other potentially infectious materials. 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.

ii. If personal protective equipment (garment) is penetrated by blood or other potentially infectious materials (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 employee must remove contaminated PPE in such a way as to avoid contact with the contaminated portions.

iii. Scrubs are not personal protective equipment.

g. 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 Linen Supervisor or Linen 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 and reimbursement offered for personal clothing/scurbs contaminated with blood or OPIM may be discussed with the employee's department. University employees should remove contaminated personal clothing following the above recommendations for removal of PPE and notify their supervisor.

iv. Following any blood/OPIM exposure, HCP can get further assistance from the House Supervisor - Nursing (Pager: 919-347-1922 or Tel: 984-974-2415).

h. Additional PPE (e.g., bonnets, hoods, shoe covers, boots) may be required in instances when gross

contamination is reasonably anticipated (e.g., autopsies, trauma surgery, labor and delivery, and orthopedic surgery).

3. 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 policy, "Cleaning, Disinfection and Sterilization of Patient Care Items.")

        i. Instruments or reusable devices that enter normally sterile tissue or the vascular system must be decontaminated prior to sterilization between patient uses.

        ii. Devices or items that contact intact mucous membranes should be cleaned and dried before being sterilized or receiving high-level disinfection (a procedure that kills vegetative organisms and viruses but not necessarily large numbers of bacterial spores). Chemical germicides that are registered with the U.S. Environmental Protection Agency (EPA) as "sterilants" may be used either for sterilization or for high-level disinfection depending on contact time.

        iii. Medical devices or instruments that require sterilization or disinfection must be thoroughly cleaned before being exposed to the germicide, and the manufacturer's instructions for the use of the germicide should be followed. Further, it is important to follow the manufacturer's specifications for compatibility of the medical device with chemical germicides.

        iv. An EPA-registered disinfectant detergent (e.g., MetriGuard, SaniCloths, bleach wipes) or a 1:10 dilution of bleach and water (expires in 30 days) must be used to decontaminate non-critical devices or equipment (that has contact with intact skin) after blood or OPIM contamination with at least a one minute wet contact time.

            1. Reusable personal care items which may be contaminated with blood or other potentially infectious materials must be decontaminated between patients.

            2. For patients in semi-private rooms, personal patient items (e.g., combs, toothbrushes, tooth paste, electric shavers) are labeled with patient's name and unit number and stored separately.

    b. All equipment and environmental work surfaces will be cleaned and decontaminated after contact with blood or OPIM. Contaminated work surfaces will be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or OPIM; and at the end of the work shift if the surface may have become contaminated during the shift.

    c. Blood and body fluid spills should be cleaned using a 1:10 dilution of bleach (sodium hypochlorite) or an EPA-registered hospital disinfectant (e.g., MetriGuard). A quaternary ammonia product (e.g., A456II) or accelerated hydrogen peroxide (e.g., Oxivir) 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 are worn during the cleaning.

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

        ii. With large spills of cultured or concentrated infectious agents in the laboratory, the

contaminated area should be flooded with a liquid germicide before cleaning, and then decontaminated again with the germicidal chemical.

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 as soon as feasible 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 and cleaned and decontaminated immediately 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 dust pan, 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 hospital disinfectant after use.

h. Regulated Medical Waste

   i. Regulated medical waste is handled in accordance with federal, state, and local laws and UNC Health Care's Infection Control Policy "Guidelines for Disposal of Regulated Medical Waste" and UNC-CH Medical Waste Disposal Procedures for Campus Health Services and the School of Dentistry.

   ii. There is no epidemiological evidence to suggest that medical waste is any more infective than residential waste. Moreover, there is no epidemiological evidence that medical waste has caused disease in the community as a result of improper disposal.

   iii. North Carolina regulates three types of medical waste:

      1. Microbiology laboratory waste
      2. Pathology waste
      3. Blood specimens or blood products in quantities greater than 20 mL per unit container.

   iv. 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.

   v. The regulated medical waste at UNC Hospitals is placed into a red bag and treated in compliance with State regulations (e.g., incinerated).

   vi. 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. Housekeeping staff will remove sealed boxes from the clinic areas. The boxes will be transported to the loading dock area where they will be collected by the waste disposal contractor for transport to an incinerator.

   vii. Bulk blood, suctioned fluids, excretions, and secretions may be carefully poured down clinical

sink (not handwashing sink) /hopper connected to a sanitary sewer. Any fluid splashed onto surrounding surfaces (e.g., walls) will be removed immediately using an EPA-registered disinfectant such as MetriGuard, A456II-N; a 1:10 bleach solution, or Sani-Cloth.

i. Non-regulated medical waste is placed in a white bag with biohazard label. There are two exceptions:

   i. The psychiatry units use a brown paper bag that is placed in a trash container with a biohazard label.

   ii. The other exceptions are the community-based clinics and in-patient hospice which use a plastic trash bag that is placed in a trash container with a biohazard label.

j. Clinical waste containers are labeled with a biohazard symbol to warn employees of the potential hazard posed by the contents.

k. Laundry

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

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

      1. All soiled linen must be bagged at the location where it was used.
      2. Soiled linen must not be sorted or rinsed in patient-care areas.
      3. All used linen is handled as contaminated laundry and all employees will recognize the laundry bags as requiring compliance with Standard Precautions.
      4. The laundry is placed and transported in a fluid-resistant bag that prevents soak-through and/or leakage of fluids to the exterior. Wet laundry should be rolled so that the driest portions are on the outside before placing in the linen bag.
      5. Clinics in the Ambulatory Care Center including Ambulatory Surgery Center have linen laundered through the Hospital's off campus laundry service. Clinics in the School of Dentistry have linen laundered through an off-campus laundry service.

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.

         1. Exposed skin and any puncture sites should be thoroughly washed with soap and water.
         2. 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 reasonable amount of time.
         3. If the mouth is exposed, rinse/flush with clean water.

4. 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) 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 Health Care Personnel (HCP), including those working off site, Orange County Employees and Carrboro Rescue Dept. are to report exposures to Occupational Health Service Needlestick Hotline (NHL) at 984-974-4480.

1. HCP of UNC Health Care must complete an Employee Incident Report and call the Needlestick Hotline at 984-974-4480. This service is provided 24 hours per day, 7 days per week by UNC Hospitals' Occupational Health Service during their operational hours of 7:30 a.m. to 4:00 p.m., Monday through Friday. After hours, on weekends and holidays, employees are to call the **Needlestick Hotline (984-974-4480)** where they will be provided with immediate evaluation and timely treatment of the potential exposure.
2. HCP should refer to the Bloodborne Pathogen Exposure (BBPE) protocol found on the Occupational Health Services (OHS) website on the UNC Healthcare Intranet. This protocol is reviewed annually to comply with UNC Health Care Exposure Control Plan for Bloodborne Pathogens and OSHA Bloodborne Pathogen Standard.

ii. University Employees

1. 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)

1. Students should call UNC Campus Health Services (CHS) 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 Service (CHS) Duty Doctor on call.
2. Please refer to Attachment 9. Information is also available on the CHS website: https://campushealth.unc.edu/urgent-needs/health-science-students-blood-borne-pathogen-exposure.

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

1. 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. Refer to "Recommendations for Management of Bloodborne Pathogen Exposure of Occupationally Exposed Persons." This policy contains detailed guidelines for personnel

not covered by UNC OHS, UEOHC, or CHS.

v. Trainees Not Affiliated with UNC

1. 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

1. Following an exposure incident, the occupational healthcare provider (OHP) will provide the HCP with an exposure evaluation report regarding the incident, and recommendations will be made to avoid further exposure incidents. HCP will also be provided with a Health Care Professional Written Opinion for Hepatitis B Vaccine within 15 days from the time of exposure. The employer will bear the costs, including costs for HCPs 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. HCPs who work off site and who experience an exposure as defined in this document should refer to the **HIV Post Exposure Protocol** on the UNC Health Care Intranet.

2. A sharps injury log is maintained by UNC Health Care 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.

3. For HCP of UNC Health Care, these records are kept in UNC Health Care 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
(For the full Hepatitis B exposure policy, see "Management of Hepatitis B Exposures" on the OHS website under "OHS Protocols.")

a. Definition of Exposure

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

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

2. HCP has had contact on a mucosal surface or abraded skin with contaminated blood or OPIM

3. 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

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

5. Healthcare personnel have received a bite which breaks the skin. Please report to Occupational Health Service (OHS) for evaluation. (Please refer to OHS Protocol: Management of Human Bites.)

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

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

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

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

4. Percutaneous injury with a non-contaminated sharp.

5. Parenteral exposure or mucous membrane contact with saliva (except during a dental procedure), urine, feces, or tears in which there is not visible blood.

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 7). Hepatitis B immunization will be provided to at risk employees at no charge. Hepatitis B vaccination must be made available after the employee has received information and training regarding the vaccine and within ten working days of initial assignment.

ii. The standard immunization schedule will be followed: 0, 1, 6 months. Acceptable deviations from this schedule are as follows: 0, 1 mo (minimum time 0.75 mo), 6 mo (minimum time 5 mo). The alternative immunization schedule will also be acceptable: 0, 1, 2, 12 months provided Engerix vaccine was used. Acceptable deviations from this schedule are as follows: 1, 1 mo (minimum time 0.75 mo), 2 mo (minimum time 1.5 mo), 12 mo (minimum time 6 months). Immunization provided less than at the minimal intervals will not be counted. Employees who have received 1 or 2 vaccine doses will be continued on the standard schedule regardless of time between immunizations or time since last immunization. Following the 3rd (or 4th immunization if 0, 1, 2, 12 month schedule used) immunization, anti-HbsAg titer will be assessed 1-2 months after the last immunization.

iii. Following a primary immunization series, all employees will be tested for anti-HBsAg 1-2 month's post-vaccination (1-6 acceptable). If <1 year since primary hepatitis B series and anti-HBsAB is negative, persons who lack protective antibody levels will be provided with three additional doses of hepatitis B vaccine. Following the second primary series, employees will again be tested for anti-HBsAg and HBsAg 1-2 months following the last vaccine dose (dose 6). Employees who have not developed an adequate antibody titer will be labeled

NONRESPONDERS. In the event of an exposure to HBsAg positive blood, the employees who are non-responders will be provided HBIG within 24 hours and 1 month later per CDC guidelines.

1. Anti-HBsAg (quantitative) are checked for Health Science students for rotation purposes.

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

c. Post-Exposure Prophylaxis

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

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

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

iv. Unvaccinated HCP will receive PEP per CDC recommendations and other expert opinions (refer to the Hepatitis B policy on the OHS website).

d. Evaluation of HCP with Acute Hepatitis B Infection

i. All employees with symptoms and/or signs of acute hepatitis will be tested for acute hepatitis B infection. The following serologies will be drawn: HBsAg, anti-HBsAg, and anti-HBc (HbeAg may also be ordered). Additional studies for hepatitis A, C, and/or D, may be performed. Persons with acute hepatitis B will also have blood drawn to test serum glucose, bilirubin, PT, and electrolytes. If the infection resulted from occupational exposure, primary care will be provided by the employee'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. Employees with acute hepatitis B infection will be sent home on sick leave during the acute infection (jaundice). All such employees will be counseled regarding the need for precautions to prevent home or hospital transmission of infection. Every effort will be made to document whether infection resulted from nosocomial exposure. All cases will be reported to the NC State Health Department, as per NC State regulations. Prior to returning to work all employees who have had acute infection, must receive medical clearance. Employees will be followed for at least one year to determine if they have developed chronic hepatitis B

infection. Serologic testing (HBsAg, anti-HBsAg, anti-HBc) will be performed at the following times until the individual is determined to be noninfectious: 0, 1 month, 3 months, and 6 months. All employees still infectious at 1 year, regardless of symptoms, will be referred to a gastroenterologist for evaluation.

3. Management of Hepatitis C Virus
(For the full Hepatitis C exposure policy, see "Management of Hepatitis C Exposures" on the OHS website under "OHS Protocols.")

    a. Definition of Exposure

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

            1. HCP has suffered a percutaneous injury with a contaminated sharp.
            2. HCP has had contact on a mucosal surface or abraded skin with contaminated blood or a bloody body fluid.
            3. HCP has had 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.
            4. HCP has had parenteral exposure to or mucosal membrane contact with a contaminated body fluid. Such fluids include only semen, vaginal secretions, amniotic fluid, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, or saliva during a dental procedure. In addition, contact with any unfixed tissue or organ (other than intact skin) from a human (living or dead).
            5. HCP has received a bite that breaks the skin. (Please refer to OHS Protocol: Management of Human Bites.)

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

            1. The source is HCV PCR negative even if the source is a member of a group at high risk of HCV infection.
            2. Inhalation or possible inhalation of microscopic blood or bloody fluids.
            3. Contact of intact skin with contaminated blood or a bloody fluid.
            4. Percutaneous injury with a non-contaminated sharp.
            5. Parenteral exposure or mucous membrane contact with saliva, urine, feces, or tears in which there is no visible blood.

    b. Pre-Exposure Prophylaxis

        i. None Available

    c. Post-Exposure Prophylaxis

        i. None Available

            1. CDC guidelines state the following: "Recent studies indicate that immunoglobulin (IG) does

not protect against infection with HCV. Thus, available data do not support the use of IG for prophylaxis of HCV. There are no data on the efficacy of IG for post-exposure prophylaxis of other (non-HCV) parenterally-transmitted, non-A, non-B hepatitis." Persons with HCV exposure will have a baseline anti-HCV (EIA) and ALT repeated in 6 months and a HCV RNA drawn at 4-6 weeks. If positive, they will be referred to a gastroenterologist or infectious disease specialist with expertise in HCV treatment.

d. Evaluation of Employees with Acute Hepatitis C Infection

i. All employees with symptoms and/or signs of acute hepatitis will be tested for acute hepatitis C infection. The following serologies will be drawn: Anti-HAV IgM, anti-HAV IgG, HBsAg, anti-HBs, anti-HBc and HCV RNA PCR. Additional tests will include: ALT, AST, Bilirubin (direct and indirect), glucose and PT. Additional studies for hepatitis viruses may be performed. Persons with acute hepatitis C will also have blood drawn to test serum glucose, bilirubin, PT, and electrolytes. If the infection resulted from occupational exposure, primary care will be provided by the employee'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. Employees with acute hepatitis C infection will be sent home on sick leave during the acute infection (jaundice). All such employees will be counseled regarding the need for precautions to prevent home or hospital transmission of infection. Every effort will be made to document whether infection resulted from nosocomial exposure. All cases will be reported to the State, as per State regulations.

ii. Prior to returning to work all employees who have had acute infection must receive medical clearance. Employees will be followed for at least one year to determine if they have developed chronic hepatitis C infection. All employees with HCV (acute or chronic), regardless of symptoms, will be referred to a gastroenterologist for evaluation.

4. Management of Bloodborne Exposures to HIV
(For the full HIV exposure policy, see "HIV Post Exposure Protocol" on the OHS website under "OHS Protocol/Needlestick.")

a. Definition of Exposure

i. Healthcare personnel (HCP) will be defined as having been occupationally exposed to HIV under the following conditions: The source is HIV-positive (HIV Ag/Ab combo 4th generation test positive, AND one of following has occurred.

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

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

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

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

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

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

1. The source is HIV negative even if the source is a member of a group at high risk of HIV infection.
2. Inhalation or possible inhalation of microscopic blood or bloody fluids.
3. Contact of intact skin with contaminated blood or a bloody fluid unless such contact is prolonged or extensive.
4. Percutaneous injury with a non-contaminated sharp.
5. Parenteral exposure or mucous membrane contact with saliva, sputum, tears, human milk, urine, or feces, in which there is no visible blood.

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

c. HIV Testing – UNC Hospitals

i. UNC Hospitals tests for HIV using a HIV antigen/antibody combination 4th generation test that screens for HIV-1 p24 antigen and antibodies to HIV-1, HIV-2 plus group O. Initially-positive tests are repeated in duplicate. Repeat-positive tests are confirmed for HIV-1or HIV-2 by supplemental screening before being reported as Positive. Repeat-positive tests that are Negative or Indeterminate by HIV Ag/Ab combo 4th generation testing are reflexed to Quantitative HIV-1 RNA PCR testing.

E. Determination of Employees with Reasonably Anticipated Occupational Exposure

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

F. Training and Record Keeping

1. Purpose

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

2. Policy

a. Employees who have occupational exposure to blood and other potentially infectious materials will receive training at the time of initial assignment to an area where occupational exposure may take place and at least annually and more often if a need is indicated. 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 employees.

3. General Information

    a. The OSHA-required training is a condition of employment for all employees of the Health Care System and University. Each department manager must ensure that all employees 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 employee's risk for occupational exposure.

    c. Training can be accomplished via a variety of mechanisms. The majority of employees of the Hospitals utilize a self-instructional module located on the Learning Made Simple (LMS). Employees 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 on pager 919-216-2935 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. Employees may also elect to use the self-study training for bloodborne pathogens located on the EHS website.

4. Training Elements

    a. 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 Hospitals.

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 Hospitals, records are kept by each individual department. For University employees, documentation is kept at the UNC-CH Department of Environment, Health and Safety.

G. Guidelines for the School of Dentistry

1. Introduction

   a. This Bloodborne Pathogens Exposure Control Plan applies to all temporary, probationary, and permanent part- and full-time employees of the School of Dentistry and Clinical Research Center who are at risk for occupational exposure to bloodborne pathogens as defined in this document. Employees are expected to comply with all components of the plan including the following additional guidelines that are unique to dentistry.

2. Plan Administration

   a. Administration of the School's Exposure Control Plan rests with the Executive Dean, the Associate Dean for Clinical Affairs, the Director of the Dental Faculty Practice, and the Director of Patient Relations and Risk Management, who will manage and coordinate all aspects of the plan in cooperation with the University Department of Environment, Health and Safety. Employees covered under the provisions of this plan should contact one of these individuals with any questions, problems or concerns.

3. Employee Access to Plan

   a. The plan is also available on the School of Dentistry website under 'Clinical Policies and Manuals' and 'Infection Control'

4. Exposure Determination

   a. The School of Dentistry has determined that all employees within the following job classifications are at risk for occupational exposure to bloodborne pathogens by virtue of their primary job duties. This determination has been made without regard to the use of protective equipment or engineering and work practice controls.

      i. Clinical Faculty engaged in the practice of dentistry and/or engaged in the clinical instruction of students and supervision of patient care within the student dental clinics and supporting staff.

1. Dentist Exposures
    a. Render treatments with sharp or rotary instruments
    b. Give intraoral injections
    c. Exposed to spatter and spray of oral fluids.
    d. Handle contaminated equipment and surfaces
2. Dental Hygienists Exposures
    a. Treat patients intraorally with sharp instruments
    b. Exposed to spatter and spray of oral fluids
    c. Handle contaminated equipment and surfaces
    d. Clean instruments contaminated with saliva and blood
3. Dental Assistant Exposures
    a. Contact mucosa and blood
    b. Exposed to spatter and spray of oral fluids
    c. Handle contaminated equipment and surfaces
    d. Clean instruments contaminated with saliva and blood
4. Dental Technician Exposures
    a. Receive and handle impressions contaminated with blood and saliva
    b. Grind and polish prostheses worn intraorally
5. Medical Support Technicians Assigned to the Central Sterilization Unit
    a. Transport, receive, clean, and sterilize instruments contaminated with blood and saliva
6. Registered Nurses Engaged in Patient Care
    a. Provide injections, start intravenous injections
    b. Touch, intraoral mucosa and blood
    c. Handle, clean, and sterilize saliva/blood-contaminated instruments
    d. Contact and clean contaminated equipment
7. Research Specialist/Technician Exposures
    a. Exposed to spatter and spray or oral fluids
    b. Handle contaminated equipment and surfaces
    c. Exposure to other potentially infectious materials (OPIM)

ii. Additionally, some employees within the following job classifications also may be at risk for occupational exposures when performing the indicated task:

1. Clinic Administrative Support Associates

a. Receive and handle contaminated instruments and equipment that have been used in patient treatment

2. Dental Specialty Trades Technicians

a. Performing equipment maintenance and repairs in patient care area/dental laboratories and research laboratories

5. Methods to Control Exposures (Methods of Compliance)

a. The School of Dentistry's Infection Control Manual defines Standard Precautions, Engineering Controls and Work Practice Controls that must be followed by all employees covered under this Exposure Control Plan to help eliminate and/or minimize exposure to bloodborne pathogens. These are summarized below.

i. Standard Precautions

1. Wear a clean clinical over-garment in patient care units. Between patients change visibly soiled over-garments. Before leaving a work area, remove over-garments and place in the provided laundry hampers. Any worn, and therefore, contaminated over-garment must not be worn in a non-patient care area and must not be taken out of the School of Dentistry.

2. Wear disposable treatment gloves in performing and/or assisting in all intraoral procedures when opening exposed intraoral x-ray film packets, when handling contaminated equipment, instruments and other contaminated items, upon placement and cleaning of digital radiograph receptors and in laboratory settings when there is a potential of exposure to blood and/or blood products. Sterile gloves must be worn in all surgical procedures.

3. Disposable face masks and protective eye covering with solid side shields must be worn in performing and/or assisting in any procedure involving the generation of aerosols or when there is the potential for spatter of blood or saliva.

4. Dental laboratory technicians are required to wear a clean uniform or laboratory jacket/ coat. Technicians receiving incoming cases to the laboratory are required to wear disposable treatment gloves. Disposable face masks and protective eye covering with solid side shields are also required when there is a potential for exposure to dust or spatter.

ii. Engineering Controls

1. All needles shall be used with a protective shield. Re-sheathing of anesthetic needles is only permitted with the use of a protective shield and a one-handed scoop technique.

2. All used reusable sharps must be transported in covered, puncture-resistant, leak-resistant containers.

iii. Work Practice Controls

1. Employees covered under this Exposure Control Plan must follow the work practice controls outlined in the UNC School of Dentistry's Infection Control website. Work practice controls are specifically documented in the following sections of the manual:

a. Section IV. Preparation and Disinfection of Operatories

b. Section V. Maintaining the Chain of Asepsis and Limiting Contamination

c. Section VII. Sterilization and Disinfection of Instruments

d. Section IX. Disinfection of Impression Materials and Dental Laboratory Procedures

e. Section X. Radiology Service Procedures

iv. Personal Protective Equipment

1. Employees covered under this plan shall be provided with personal protective equipment and specialized clothing they require to minimize occupational exposures, at no cost to them. These items include: treatment gloves, facial mask, protective eyewear, clinical over-garments, clinic jackets, surgical scrubs, disposable footcovers and disposable headcovers. Laundry services for specialized clothing are also provided at no cost to employees.

2. Treatment gloves must be changed between each patient encounter, whenever the chain of asepsis is broken and/or whenever the integrity of the glove is compromised.

3. Used (contaminated) masks must be removed and discarded at the completion of treatment and when leaving the patient treatment area. Used masks must not be worn around the neck. Contaminated protective eyewear should be washed thoroughly with soap and water, rinsed well, and disinfected with an agent that does not damage eyeglasses

4. Clinical over-garments and clinic/laboratory jackets must be changed when visibly soiled. After removing, they must be placed in a laundry hamper located in the work area and not taken home by employees for laundering.

v. Post-Exposure Evaluation and Follow-Up

1. **All** employees covered under this plan who experience an exposure incident in the performance of their duties shall promptly report the incident to the Office of Clinical Affairs. Exposure evaluation and follow-up should proceed as outlined in Section D of this policy.

vi. Laundry Practices

1. Contaminated laundry (soiled with blood or other potentially infectious materials, including saliva), including linen towels, surgical drapes, clinical over-garments, surgical scrubs, and laboratory coats are to be discarded in hampers located in the work area, and not further handled in the clinical areas. All linen deposited in these hampers is considered contaminated, and only handled with gloved hands.

2. Linen saturated with blood or other potentially infectious materials must first be placed in a red or labeled bag that indicates "BIOHAZARD" and prevents leakage before being deposited into the laundry hamper.

3. The University School of Dentistry staff will prepare laundry for removal to an outside laundry service in accordance with the OSHA Bloodborne Pathogens Standard.

vii. Housekeeping Practices

1. Employees engaged in patient care activities shall adhere to the policies and procedures documented in the School of Dentistry's Infection Control website regarding Preparation and Disinfection of Operatories (Section IV), Sterilization and Disinfection of Instruments

(Section VII), Dental Laboratory Procedures (Section IX), and Radiology Service Procedures (Section X).

a. All surfaces within the dental operatory that have not been draped with plastic or aluminum foil covers (or whenever the integrity of covers has been compromised) will be disinfected following each patient treatment encounter or, in the case of the dental laboratories, at the end of each work day, utilizing hospital-approved disinfection

b. Within the dental laboratories, contaminated ragwheels will be cleaned thoroughly and then steam-autoclaved on a daily basis.

c. At the end of each workday, the UNC School of Dentistry staff and students will meticulously clean all clinical areas including dental operatories, dental laboratories and instrument sterilization areas. Cleaning activities will encompass disinfection of all surfaces that may come in contact with patients, dentists, dental hygienists, and dental assistants in the course of their duties, in accordance with UNC School of Dentistry Policy.

2. Record Keeping

a. The Office of Clinical Affairs will track each reported exposure incident to assure that the referral for medical evaluation and follow-up has occurred with the University Occupational Health Clinic. Additionally, information relative to the route of exposure and circumstances under which exposure occurred will be maintained and reported in a summary format to the School's Infection Control Committee on an annual basis for the purpose of committee review and determination of changes in engineering controls and work practice controls that may be effective in reducing or eliminating the occurrence of exposure incidents.

b. The UNC Department of Environment, Health and Safety will maintain in the UNC Health and Safety Database the following information for Dental School employees whose jobs involve potential exposure to blood and other potentially infectious materials:

- The employee's name, job classification, and PID number.
- Information sheet completed at the time of hire, including copy of the employee's hepatitis B vaccination status, dates of vaccination or statement from employee's physician indicating medical contraindication(s) to vaccination or declination statement signed by the employee.
- The School of Dentistry Personnel Department will keep a copy of Form 19, "Employer's Report of Injury to Employee" for an employee involved in an exposure incident. The original Form 19 will be forwarded to the University Department of Environment, Health and Safety.

c. UNC Department of Environment, Health and Safety will maintain an accurate and current file of all employee training and education sessions that records the dates held, names and qualification of the trainers, program content, and the names and job titles of all employees who attend

d. Training records will be maintained by the UNC Department of Environment, Health

and Safety for a period of three years.

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Attachments:

01: Definitions
02: Common Abbreviations
03: Infection Control Capability of Gloves
04: Job Classifications with Reasonably Anticipated Occupational Exposure
05: Serologic Testing for Health Care Personnel (HCP) Following Occupational Exposure to HIV, HBV, HCV
06: Hepatitis B Vaccine Decliniation for UNC Employees
07: UNC Occupational Health Service Guidelines for Discussion with Source Patient
08: 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
09: Bloodborne Pathogen Exposure - Mode of Operation for Campus Health Services

Approval Signatures

Step Description	Approver	Date
Policy Stat Administrator	Patricia Ness: Nurse Educator	07/2018
	Thomas Ivester: CMO/VP Medical Affairs	07/2018
	Emily Vavalle: Director, Epidemiology	07/2018
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Applicability

UNC Medical Center