

STUDENT EXPOSURE TO INFECTIOUS AND ENVIRONMENTAL HAZARDS

1 Policy

VTCSOM students will follow the protocols of the Carilion Clinic Bloodborne Pathogens Exposure Control Plan. This policy is available following this policy as well as on the Carilion intranet.

Immediately after known exposure at a VTCSOM curriculum course site, the student must contact their clinical instructor or attending physician and follow the guidelines and policies of the medical facility relating to evaluation, management, and follow-up.

2 Procedures

If a student has exposure to blood or body fluids through open skin contact, mucous membrane or a needle stick, the following steps should be taken:

- Following a body fluid contamination exposure, the student will immediately wash the injury site thoroughly with soap and water (flush mucous membranes with saline or water).
- The student will then notify their clinical instructor or attending physician, and should obtain the name of the source patient, medical record number, room number, and diagnosis if known. This information is necessary to assist the medical provider in determining the potential severity of the exposure.
- For any exposure, the student is to report immediately to Employee Health at CRMH (540-981-7206), from 7:30am-4pm, Monday-Friday-closed for lunch 12-12:30).
- OR, if Employee Health is closed the student is to contact the Hospital operator at 981-7000 and have the Clinical Administrator paged for any exposure. The student may be sent to the ED by the Clinical Administrator if deemed necessary.
- Appropriate first aid should be given for the injury in question and a tetanus booster should be administered when indicated.
- Please see table below for sites other than CRMH

FACILITY	BUSINESS HOURS	OFF HOURS, WEEKENDS, HOLIDAYS
CTCH	GO TO ED	GO TO ED
CGMH	CONTACT EH	CALL RESOURCE NURSE
CNRVMC	CONTACT EH	CALL RESOURCE NURSE
CFMH	GO TO ED	GO TO ED
CSJH	GO TO EH	CONTACT RESOURCE NURSE

- The student is to tell patient registration they are a VTCSOM medical student in order to avoid being billed (see below).
- The student is to report to Employee Health the very next business day to complete additional paperwork and follow up.

Carilion will provide the necessary initial services to VTC medical students in the event an individual has a potential exposure to bloodborne pathogens with a Carilion patient. Initial services will include laboratory services for the source patient, and pre-prophylaxis screening and first dose of post exposure prophylaxis medications for the exposed individual

as indicated according to current Center for Disease Control (CDC) guidelines. It is Carilion Policy to offer prophylaxis, if necessary, within 1-2 hours of an exposure. **Carilion is not responsible for any ED visit.**

To insure adherence to appropriate follow-up protocols, subsequent follow-up as necessary will be coordinated through the Carilion Occupational Medicine Clinic directly with the student.

Policy / Procedure:

Bloodborne Pathogens Exposure Control Plan

KEY TERMS:

bloodborne, pathogens, exposure, control plan, employee event report, EER, personal protective equipment, PPE, standard precautions, biohazard, occupational exposure, needlestick, barrier, HIV, HBV, HCV, job categories, engineering and work practice controls, Virginia Code 32.1-45.1, patient placement, hand hygiene, laboratory specimens, equipment, environmental cleaning, linen, dishes, waste management

PURPOSE:

This exposure control plan has been established by Carilion Clinic in order to minimize and to prevent, when possible, the exposure of our employees to disease causing microorganisms transmitted through human blood, and as a means of complying with the Occupational Safety Health Administration (OSHA) and the Virginia Occupational Safety and Health (VOSH) Bloodborne Pathogens Standard.

The Occupational Safety Health Administration (OSHA) and the Virginia Occupational Safety and Health (VOSH) 1910.1030 Bloodborne Pathogens Standard was issued to reduce the occupational transmission of infections caused by microorganisms sometimes found in human blood and certain other potentially infectious materials. Although a variety of harmful microorganisms may be transmitted through contact with infected human blood, viruses such as Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), and Human Immunodeficiency Virus (HIV) have been shown to be responsible for infecting workers who were exposed to human blood and certain other body fluids during the course of their work. These occupational exposures may involve needlestick injuries or direct contact of mucous membranes and non-intact skin with contaminated blood/materials. Occupational transmission of HBV and HCV occurs more often than transmission of HIV. Although HIV is rarely transmitted following occupational exposure incidents, the lethal nature of HIV requires that all possible measures be used to prevent exposure to workers.

SCOPE:

All employees who are exposed to blood and other potentially infectious materials as a part of their job duties are included in this program. Full-time, part-time, temporary, contract and per diem employees are covered by the Bloodborne Pathogens Standard.

DEFINITIONS:

Bloodborne pathogen – pathogenic microorganism that is present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).

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

Decontamination – the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.

Engineering control – mechanisms designed to prevent or minimize exposure to bloodborne pathogens; includes sharps disposal containers, needleless systems, safety needles, and other safety devices.

Exposure - a percutaneous injury (needlestick or cut with a sharp object), contact with mucous membranes, or contact of skin (particularly when exposed skin is chapped, abraded, or afflicted with dermatitis or contact is prolonged and extensive) with blood, tissues, or other body fluids. Potentially infectious body fluids include blood, bloody fluids, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid and amniotic fluid.

HBV – hepatitis B virus.

HBC HCV – hepatitis C virus.

HCW – health care worker.

HIV – human immunodeficiency virus.

Occupational exposure – reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's regular work duties.

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

Regulated waste – liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Source individual – any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.



Carilion Medical Center

Facility:	Facility Name
Origin Date:	08 – 1992
Last Updated:	04 – 2015
Sponsor:	Infection Control

Work Practice Controls – controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

PROCEDURE:

This plan summarizes the elements of the infection control program that are important in reducing or eliminating occupational exposure to bloodborne pathogens. A combination of engineering and work practice controls, use of personal protective clothing and equipment, training, and medical surveillance are effective strategies and are outlined in this plan. Additional details may be found in other Infection Control policies available on the intranet. This plan will be reviewed and updated annually using feedback and input from staff, incident report summaries, regulatory, and organizational recommendations. Copies of this plan are available on the Carilion Clinic Intranet .

Basic components of this exposure control plan include:

- Exposure Determination / Risk
- Methods of Compliance
- Engineering and Work Practice Controls
- Hepatitis B Vaccination Program
- Procedures for Evaluation and Follow-up of Exposure Incidents
- Employee Training
- Record keeping Procedures

A. EXPOSURE DETERMINATION / RISK:

All job categories in which it is reasonable to anticipate that an employee will have skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials will be included in this exposure control plan.

Potentially Infectious Materials / Fluids include:

- Body Fluids:
 - Blood
 - Semen
 - Vaginal secretions
 - Cerebrospinal fluid
 - Synovial fluid
 - Pleural fluid
 - Peritoneal fluid
 - Pericardial fluid
 - Amniotic fluid
 - Any body fluid visibly contaminated with blood
 - Saliva in dental procedure

Other materials include: Any unfixed tissue or organ (other than intact skin) from a human (living or dead) HIV, HBV, and/or HCV containing cell or tissue cultures, organ cultures, and culture medium blood, organs, or other tissues from experimental animals infected with HIV, HBV, and/or HCV.

1. Job Categories and Exposure Risk:

It is the responsibility of area managers to identify and communicate to staff which specific job tasks may result in occupational exposure while performing duties and to identify those control measures which are used to eliminate or reduce anticipated exposure.

Exposure to blood or other infectious material can occur directly or indirectly. To assist in determining which tasks and personnel might be at risk of an exposure, the following should be considered:

- Exposure by handling or processing body substances/fluids
- Contact with used articles and equipment
- Working in an environment soiled with body substances
- Handling used sharps
- Providing direct patient care that includes contact with body substances

Table 1. Job Category/Job Tasks and Exposure Risk

Category I High Risk	Category II Low Risk	Category III No Risk
This job category includes Individuals who perform tasks involving blood and the handling of regulated medical waste.	This job category includes individuals who may, while performing their job duties, have occupational exposure to blood. Since not all the employees in this category are expected to incur exposure to blood or other potentially infectious materials, the tasks or procedures that could cause these employees to have occupational exposure are also listed. The job classifications and associated tasks for these categories are listed below.	This job category includes individuals with no risk for exposure to blood and/or body fluids by job description. It is not necessary for employees in this job category to receive the Hepatitis B vaccine.
Staff Physicians (including, Externs, Interns, Residents, and Medical Students) Nurses Clinical Associates Dialysis Personnel, Patient Care Assistants Phlebotomist, Medical Technologists, and Laboratory Personnel Morgue Attendants Environmental Service, Support Service Personnel Maintenance	Administrative Associate/Unit Secretaries (i.e. transportation of specimens) Transportation Technicians Purchasing/ Materials Management (i.e. return of implantable devices) Patient Access Personnel (i.e. admit patients with bleeding conditions)	



Carilion Medical Center

Facility: Facility Name
Origin Date: 08 – 1992
Last Updated: 04 – 2015
Sponsor: Infection Control

Clinical Engineering Respiratory Therapy Technicians Security Personnel Radiology Personnel, Nuclear Medicine Central Sterilization Therapy Services Clinical Secretary/Associate Pharmacy Personnel		
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2. Departments and Hospital Locations:

The hospital departments and locations that have been identified as holding a reasonably anticipated risk of exposure to blood or other potentially infectious materials are:

A. Laboratories, including the Morgue, Blood Bank, Cytology, Chemistry, Hematology, Microbiology, and Histology:

- a. Procedures that most often cause exposure in the laboratory and related areas are specimen collection, specimen processing, and any invasive procedure. Employees can be exposed by needlesticks, spills, sharps, or the improper use of laboratory equipment. Specifically, tasks such as phlebotomy, handling of culture dishes, swabs, etiological agents, autopsy specimens, needles, and other sharp instruments, blood vials, bulk blood products, pipettes, infectious tissue samples/specimens, and lab packs all involve an increased potential of exposure to blood, body fluids, and other potentially infectious materials.
- b. In addition, when specimens are placed in mechanical devices, such as centrifuges, there is an increased likelihood that a mechanical problem could occur causing the rupture of the specimen tube and resulting in the splatter of the contained materials.
- c. Contaminated regulated waste containers and sharps receptacles may also be a source for potential exposure for employees working in the laboratory.

B. Direct Patient Contact Areas, including Patient Rooms, Examination Rooms, Treatment Rooms, Special Care Units, Dialysis, the Cardiac-Catherization Lab, the Operating Suite, Endoscopy Lab, Labor and Delivery, the Emergency Dept., Nuclear Medicine, Radiology, and in the home setting.

Many procedures are performed in the above listed areas that will increase the potential for exposure to the personnel involved with performing those procedures. The most frequently reported exposure is the needlestick. Other procedures performed in these areas which increase the risk of potential exposure include IV line placement, arterial blood gases, bronchoscopy, intubation, endotracheal suctioning, invasive cardiac catheterization, chest tube management, endoscopy procedures, and all surgical and obstetrical delivery procedures.

C. Indirect Patient Contact Areas, including Rest Rooms, Trash Areas, Clinical Engineering, Soiled Utility Rooms, Central Sterilizing/Operating Room/Suite, and the Decontamination Area:

- a) Rest rooms are frequently used in the collection of certain specimens. They are also a place where patients may perform self-care or personal hygiene tasks which may contaminate waste containers or environmental surfaces with potentially infectious materials.
- b) Waste handling areas offer potential exposure from broken bags of infectious waste and ruptured sharps containers. Exposure could also occur from blood and/or body fluids leaking out of improperly packaged containers or torn bags. Needles or other sharps may be present inside trash bags; therefore, all trash bags must be handled with care.
- c) The soiled utility room is where regulated waste and other potentially contaminated items are accumulated before transportation to their final destination.
- d) Medical equipment that is sent to Clinical Engineering for repair may be potentially contaminated. This equipment must be properly tagged as "BIOHAZARD" whenever the potential for contamination exists.
- e) Decontamination Rooms in the Operating Room, Central Sterilizing, and Mini Distribution at CRMH are several locations where contaminated equipment is returned for disinfection. These areas present increased exposure potential due to the contaminated nature of the equipment.

B. METHODS OF COMPLIANCE:

Managing cross-contamination and preventing infection in patients and healthcare workers is dependent upon employee's compliance with prevention practices. Below are effective strategies designed to minimize or prevent exposure to blood:

1. Standard Precautions:

- a) Standard Precautions are based on the principle that all blood, body fluids or other potentially infectious materials, secretions, excretions (except sweat), nonintact skin, and mucous membranes may contain transmissible infectious agents.
- b) The risk of transmission of HIV, HBV, and HCV from body fluids such as feces, nasal secretions, sputum, sweat, tears, urine and vomitus is extremely low or nonexistent unless these fluids contain blood.
- c) Since medical history and examination cannot reliably identify all patients infected with HIV, HBV, HCV, or other bloodborne pathogens, personnel are to use Standard Precautions when handling blood and body fluids of all patients.

d) Standard Precautions are effective infection control measures which provide protection to both patients and healthcare workers. Standard Precautions include a group of infection prevention practices that apply to the care of all patients in healthcare settings, regardless of the suspected or confirmed presence of an infectious agent. This consistent approach to managing all body substances from all patients is essential to prevent transmission of an infectious agent. Components of Standard Precautions include:

- Hand hygiene
- Use of Personal Protective Equipment (PPE) such as gloves, gown, mask, eye protection, or face shield (placing a barrier between patient and healthcare worker)
- Safe injection practices
- Proper cleaning, disinfecting, and sterilizing of patient care equipment
- Proper cleaning of the healthcare environment
- Respiratory Hygiene / Cough Etiquette (instruct patient's to cover cough, dispose of tissues properly)
- Use of masks for insertion of catheters or injection of materials into spinal or epidural spaces via lumbar puncture procedures (e.g., myelogram, spinal or epidural anesthesia).

Standard Precautions are intended to supplement rather than replace recommendations for routine infection control, such as hand washing and using gloves to prevent gross microbial contamination of hands. Additional guidance related to recommended personal protective equipment, patient placement, and isolation can be found in the Isolation Precautions policy.

C. ENGINEERING AND WORK PRACTICE CONTROLS:

Engineering and work practice controls are measures that isolate or remove bloodborne hazards in the work area and involves performing procedures in such a way that minimizes or eliminates spraying, splashing, splattering, or generation of aerosol droplets of these substances. Also included are work practice measures such as incorporating Standard Precautions, needle/sharps management, cleaning and disinfection processes and handling of specimens and regulated medical waste.

1. Personal Protective Equipment:

All healthcare workers shall routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when in contact with blood or body fluids of any patient. These items include, but are not limited to:

- Gloves
- Mask
- Gowns or aprons
- Goggles or protective eyewear
- Resuscitation Equipment
- Puncture Proof Needle Container

a. Gloves:

- Gloves shall be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, and for handling items or surfaces soiled with blood or body fluids. Use examination gloves for procedures involving contact with mucous membranes, unless otherwise indicated, and for other patient care or diagnostic procedures that do not require the use of sterile gloves.
- Use gloves for performing venipuncture and other invasive access procedures.
- Change gloves between patient contacts.
- Do not wash or disinfect surgical or examination gloves for reuse. Washing with surfactant may cause "wicking", i.e., the enhanced penetration of liquids through undetected holes in the glove. Disinfecting agents may cause deterioration.
- Gloves should be readily available in patient care areas and/or carried in pockets for easy access.
- Inspect gloves for any tears prior to use and discard if not acceptable.
- Double gloving is acceptable when gross soiling of blood/body fluids is evident. If a glove is torn or punctured by a needle or other sharp object, the glove must be removed and a new glove used as promptly as patient safety permits.
- Discard gloves saturated with blood/body fluids in the "**BIOHAZARD**" infectious waste container.
- Hypoallergenic gloves, glove liners, or other similar alternatives will be readily accessible to any employee who is allergic to the gloves normally provided.
- Use general-purpose utility gloves for housekeeping chores involving potential blood contact from instrument cleaning and decontamination procedures. Utility gloves may be decontaminated and reused but should be discarded if they are peeling, cracked, or discolored, or if they have punctures, tears, or other evidence of deterioration.

b. Masks and Goggles or Protective Eyewear:

- Masks and goggles or protective eyewear must be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose, and eyes.
- Masks should not be lowered around the neck and reused.
- Masks must cover the nose and mouth and fit securely.

- Masks can be discarded in the regular trash receptacle, unless grossly soiled with blood. If the mask is saturated with blood, discard in the "**BIOHAZARD**" infectious waste container.
- Masks and goggles or protective eyewear are available on each nursing unit and strategic locations in other departments.

c. Gowns or Aprons:

- Gowns or aprons must be worn during procedures that are likely to generate splashes of blood or body fluids.
- Gowns must be removed between patient contact.
- Non-disposable gowns are to be placed in the soiled linen container located in the dirty utility room. (Carilion Clinic handles all linen as contaminated).
- Disposable gowns/aprons that are saturated with blood or other body fluids are to be placed in a leak proof Biohazard container.
- Gowns are located on all nursing units, or strategic locations in other departments.

d. Uniforms including scrubs:

- The routine laundering of all uniforms and personal scrub suits which serve as work clothes and are neither intended for use as personal protective equipment or infection control purposes, are the responsibility of the employee. Scrub suits do not meet any of the performance-oriented tests for PPE and are **NOT** considered personal protective equipment.
- In the event that an employee's personal clothing becomes contaminated with blood, the clothing should be removed as soon as possible and laundered by the healthcare facility.

e. Resuscitation Equipment:

- Pocket resuscitation masks or resuscitation bags should be used when resuscitation is necessary. Resuscitation masks will be available on all crash carts.
- A pocket resuscitation mask or resuscitation bag should be placed in a patient's room if resuscitation is a possibility.
- Disposable equipment should be discarded appropriately.

f. Needle and Syringe Safety:

- Safer medical devices used to eliminate or minimize percutaneous injuries before, during, or after use through safer design features will be evaluated and implemented. Carilion Clinic utilizes a multidisciplinary approach to continually identify, evaluate, and select effective engineering and work practice controls. The Carilion Product Evaluation Committee, in collaboration with Human Resource and Development and Infection Control or other appropriate Committee, meets regularly to review new technologies and implement trials on specific nursing units and hospital departments to obtain end user evaluation.
- All healthcare workers must take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures.
- Needles must not be recapped, unless one-handed technique is used or the needle and syringe has a needle guard.
- Needles must not be broken.
- Contaminated disposable syringes, needles, scalpel blades, and other sharp items must be placed in designated "**BIOHAZARD**" puncture resistant/sharps containers for disposal.
- Puncture resistant "**BIOHAZARD**" sharps containers are located in patient/procedure rooms and strategic locations in other departments. Each area is responsible for closing, securing and replacing sharps containers.
- DO NOT overfill sharps containers.
- Large bore reusable needles will be placed in a puncture resistant sharps container for transport to the reprocessing area.

2. General Guidelines:

General guidelines involving patient placement, hand hygiene, laboratory specimens, equipment, environmental cleaning, linen, dishes, waste management, and general hygiene measures are as follows:

- A private room is indicated for patients with bleeding conditions.
- Hands and other skin surfaces must be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands must be washed immediately after gloves are removed. If hands are not visibly soiled an alcohol-based waterless antiseptic agent can be used for routine decontamination of hands.

- Special handling of dishes is not necessary with HIV, HBV, or HCV patients. Trays and utensils soiled with blood or body fluids can be cleaned in the patient care area by nursing services.
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials.
- Food and drink shall not be kept in refrigerators, freezers, shelves, and cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.

a. Laboratory Specimen Collection and Transport:

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

Blood and body fluid specimens must be placed in a sealed, puncture-resistant, leakproof container and the container placed in a clear plastic bag marked with the biohazard symbol. If the container is visibly contaminated with blood, it should be cleaned with a fresh solution of 1:10 dilution of bleach, or the hospital approved disinfectant agent.

b. Patient Care Equipment:

All equipment that has been used on patients or in patient care areas is considered contaminated. Equipment should be cleaned and decontaminated using an approved disinfectant after each patient use and after contact with blood or other body substances.

Reusable patient care equipment requiring sterilization must be cleaned of gross matter within the patient care area using the appropriate protective attire. Equipment should be placed in a closed, labeled, and puncture resistant container for transportation to Central Sterilizing or designated area. All equipment will be handled using STANDARD PRECAUTIONS making sorting of equipment unnecessary.

Disposable patient care equipment saturated or caked with blood and body fluids must be placed in containers marked with the biohazard symbol. Items designated as disposable for single patient use may not be reprocessed for reuse, unless approved by the Infection Control Committee and/or designated committee.

c. Decontamination and Spill Clean Up:

All work surfaces where blood, body fluids, and infectious agents or materials are handled must be disinfected after each use with a hospital approved disinfectant. Additionally, work surfaces must be disinfected after any overt spill. Environmental surfaces soiled with blood or body fluids should be

cleaned as soon as possible by gloved personnel using an approved and appropriate disinfectant. For additional details, please refer to the **Waste: Regulated Medical policy**:
<http://chsweb.carilion.com/CarilionPoliciesandProcedures/Facility%20Specific/CMC/Index/Environmental/ww/WasteRegulatedMedical.pdf>

d. Routine Environmental Cleaning and Disinfection:

The primary responsibility for maintaining a clean and sanitary worksite rests with the Environmental Services Department; however each department and healthcare worker shares this responsibility. Environmental Services maintains schedules for routine area cleaning including floors, walls, curtains, carpets, windows, and surfaces in each area. Environmental and working surfaces are cleaned and decontaminated after contact with blood or other body substances using an approved disinfectant.

e. Laundry:

All used laundry is handled as contaminated. Used, soiled laundry is handled with standard precautions and minimal agitation. Soiled laundry is placed in fluid impermeable bags in the work area where it was used. Soiled linen will be contained separately from clean linens.

f. Waste Management:

Wastes which present a potential infectious exposure hazard to employees and the general public are identified, handled, and disposed of in a safe manner consistent with the recommendations of advisory and regulatory agencies.

Infectious waste containers will be located in the dirty utility room on each nursing unit and department. The infectious waste containers are marked with "BIOHAZARD". Procedures for handling, storage and transportation of infectious waste are defined in the Hazardous Materials and Waste Management Policy.

g. Compliance Monitoring:

Monitoring hospital personnel for compliance with Standard Precautions is the responsibility of each Department Manager or Designee. The Department Manager will evaluate work procedures and the type of exposure expected and based upon this determination, select additional "appropriate" personal protective equipment for their respective areas of responsibility. Once the guidelines for personal protective equipment use have been developed they are to be incorporated into work control practices. It is required that these Employee Health and Infection Control policies be incorporated into the departmental training program.

h. Communication of Hazards to Employees:

Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship



Carilion Medical Center

Facility:	Facility Name
Origin Date:	08 – 1992
Last Updated:	04 – 2015
Sponsor:	Infection Control

blood or other potentially infectious materials. Contaminated equipment shall also be labeled in this manner: Information about the portions of the equipment that remain contaminated shall be added to the label.

Labels shall be orange/red with lettering or symbols in a contrasting color. The label is either to be an integral part of the container or affixed as close as feasible to the container by a method which prevents loss or unintentional removal of the label. The label shall have the "BIOHAZARD" symbol and the text **BIOHAZARD**.

Red bags may be substituted for the warning label.

D. HEPATITIS B VACCINE PROGRAM:

All employees who have been identified as having the potential for exposure to bloodborne pathogens will be offered the hepatitis B vaccination series at no cost to the employee. HBV vaccine is recommended for all employees with potential occupational exposure. Healthcare workers who decline the vaccine are required to sign a declination statement. The vaccine remains available throughout the duration of the healthcare worker's employment at Carilion Clinic, if at a later time the healthcare worker decides to accept it.

The vaccination is a series of three injections given according to the Centers for Disease Control and Prevention (CDC's) recommendations. At this time a routine booster dose is not recommended, but if the U.S. Public Health Service, at some future date recommends a booster, it will also be made available to employees at no cost.

The vaccination will be made available to employees after they have attended training on bloodborne pathogens and within 10 working days of initial assignment to a job category with exposure risk.

In addition, employees will be offered post-exposure evaluation and follow-up at no cost should they experience an exposure incident on the job. A copy of the healthcare professional's written evaluation shall be provided to the employee within 15 days of the completion of the evaluation.

All medical evaluations and procedures including the hepatitis B vaccination series, whether prophylactic or post-exposure, will be made available to the employee through Employee Health Services. This medical care will be performed by or under the supervision of a physician. Medical care and vaccination series will be according to the most current recommendations of the U.S. Public Health Service and the CDC.

E. PROCEDURE FOR EVALUATION AND FOLLOW-UP OF EXPOSURE INCIDENTS:

A blood/body fluid exposure is defined as a percutaneous injury (needlestick or cut with a sharp object), contact with mucous membranes, or contact of skin (particularly when exposed skin is chapped, abraded, or afflicted with dermatitis or contact is prolonged and extensive) with blood, tissues, or other body fluids. Potentially infectious body fluids include blood, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, saliva in dental procedures, and any body fluid visibly contaminated with blood.



Carilion Medical Center

Facility:	Facility Name
Origin Date:	08 – 1992
Last Updated:	04 – 2015
Sponsor:	Infection Control

Whenever an exposure incident occurs, it is the responsibility of the employee to act immediately and to initiate evaluation and follow-up by going to Employee Health or the facility specific designated evaluation area (see Appendix A). The employee must immediately report the incident to his/her supervisor and Employee Health.

An Employee Event Report (EER) must be thoroughly completed. To be included on the EER is a description of the event, and the type, brand, and gauge of the sharp involved, if applicable.

The employee is to report to the facility specific designated area (see Appendix A) for review of their immunization status, counseling and follow-up. Evaluation will consist of, but not be limited to the determination of exposure route and source, tetanus/diphtheria immunization status, hepatitis B vaccine/titer status, and baseline test offered, if indicated.

Testing and follow up will be performed on the source patient in accordance with the Code of Virginia 32.1-45.1 (see Appendix B). A copy of test results will be forwarded to the attending physician in the event of a positive result. Test results will be kept confidential, and access limited to authorized personnel. Upon admission to the hospital, each patient will be informed of the Code of Virginia and requested to sign the appropriate consent form informing the patient that testing will be performed in the event that an employee exposure occurs.

The involved employee will be notified of testing results. Follow up consultation and counseling for positive results will be initiated through the Employee Health Services after consultation with the infectious disease medical physician or Employee Health medical director. For all positive results, opportunity will be offered for the employee to have consultation with either the Employee Health Medical Advisor or the Carilion Occupational Medicine Physician. Counseling will consist of, but not be limited to:

- Avoidance of pregnancy during testing period
- The exposed employee's hepatitis B vaccine status, including whether the hepatitis B vaccine is indicated and if the employee has completed such a vaccination series and,
- A statement that the employee has been informed of the results of his evaluation and has been told of any medical conditions resulting from the exposure to blood or other potentially infectious materials which require further evaluation or treatment.
- Explanation of test results
- Sequence for follow up testing
- Etiology of AIDS, HBV, and HCV
- Encouraging notification of sexual contacts
- Preventive sexual practices

The results of tests on employees will be confidential except as applies to administrative and personnel decisions.

The handling of blood/body fluid exposures occurring in an outpatient or affiliate area (Emergency Department, Outpatient Department, etc.) will be handled according to the same protocol outlined

here. However, it is imperative that Employee Health Services and/or the attending physician be notified immediately to ensure the required tests on the involved patient are ordered prior to his discharge from the hospital.

The employee is responsible for reporting the incident to his immediate supervisor, completion of the EER, and reporting to Employee Health Services.

The physician and health care professional responsible for the employee's hepatitis vaccination, and post exposure incident will be provided access to the following:

- Copy of 1910.1030 bloodborne pathogens standard;
- A description of the exposed employee's duties as they relate to the exposure incident;
- The documentation of the route(s) of exposure and circumstances under which the exposure occurred;
- Results of the source individual's blood testing, if available;
- All medical records relevant to the appropriate treatment of the employee including vaccination status.

An accurate record for each employee who is occupationally exposed to blood or other potentially infectious materials will be maintained for at least the duration of employment plus thirty (30) years and will include:

- Name and date of birth of the employee;
- Copy of the employee's hepatitis B vaccination status;
- Results of any examinations, medical testing, and follow-up procedures; and,
- Copy of the information provided to the healthcare professional who evaluates the employee for suitability to receive hepatitis B vaccination prophylactically and/or after an exposure incident.

This medical record will be kept confidential and disclosed only with the employee's written consent, except as required by law. The employee medical records required under the OSHA Bloodborne Pathogen Standard 1910.1030 shall be provided upon request for examination and copying to the subject employee and to the commissioner of the Virginia Department of Labor and Industry in accordance with the OSHA Bloodborne Pathogen Standard 29 CFR 1910.20.

F. EMPLOYEE TRAINING AND RECORDKEEPING:

Employees with occupational exposure risk are required to participate in training provided at no **lost cost** to the employee and during working hours. This training is done at the time of initial assignment to tasks where exposure may occur and annually. Additional training will be provided whenever there are changes in tasks or procedures which affect employee's occupational exposure.

The training approach will be tailored to the educational level, literacy, and language of the employees. The training plan will include an opportunity for employees to have their questions answered by the trainer.



Carilion Medical Center

Facility:	Facility Name
Origin Date:	08 – 1992
Last Updated:	04 – 2015
Sponsor:	Infection Control

The Human Resources, Employee Health, and/or Infection Control Department will arrange training programs. The following content will be included:

- explanation of the bloodborne pathogens standard; general explanation of the epidemiology, modes of transmission and symptoms of bloodborne diseases;
- explanation of this exposure control plan and how it will be implemented;
- procedures which may expose employees to blood or other potentially infectious materials;
- control methods that will be used at this facility to prevent/reduce the risk of exposure to blood or other potentially infectious materials;
- explanation of the basis for selection of personal protective equipment;
- information on the hepatitis B vaccination program including the benefits and safety of vaccination;
- information on procedures to use in an emergency involving blood or other potentially infectious materials;
- which procedure to follow if an exposure incident occurs;
- explanation of post-exposure evaluation and follow-up procedures;
- an explanation of warning labels and/or color-coding.

Training Records shall be maintained by Carilion's Human Resource Development. The following information shall be included:

- dates of training sessions;
- contents or a summary of the training sessions;
- names and qualifications of trainer(s); and
- names and job titles of all persons attending.

Training records shall be provided upon request for examination and copying to employees, to employee representatives, and to the Commissioner of the Virginia Department of Labor and Industry in accordance with the OSHA Bloodborne Pathogen Standard 29 CFR 1910.20.

If Carilion Clinic should cease business, and there is no successor employer to receive and retain the records for the prescribed period, then the Director of the National Institute for Occupational Safety and Health (NIOSH) will be notified at least three months prior to the disposal of records. The records will be transmitted to NIOSH, if required by the Director, within the three-month period.

OTHER ISSUES / CONCERNS:



Carilion Medical Center

Facility: Facility Name
Origin Date: 08 – 1992
Last Updated: 04 – 2015
Sponsor: Infection Control

APPENDIX A: INITIAL POST-EXPOSURE TREATMENT AREA:

Facility	Initial Treatment Area	Employee Health Services Phone Number
Carilion Medical Center	Employee Health (during Dept business hours)	540-981-7206

After hours please have the **Clinical Administrator** Resource-Nurse paged.

APPENDIX B: Virginia Code

Refer to the VIRGINIA CODE 32.1-45.1 – Deemed consent to testing and release of test results related to infection with human immunodeficiency virus or hepatitis B or C viruses.

References:

MMWR CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management *Recommendations and Reports*. December 20, 2013/62(rr10);1-19

[OSHA 29 CFR 1910.1030 - Bloodborne Pathogen Standard](#)

Approvals

Name	Title	Dept./Committee	Date
Thomas Kerkerling, MD	Section Chief, Infectious Diseases & Medical Director of Infection Control	Infectious Diseases and Chair of Infection Control Committee	4/2013
Thomas Kerkerling, MD	Section Chief, Infectious Diseases & Medical Director of Infection Control	Infectious Diseases and Chair of Infection Control Committee	4/2014
Thomas Kerkerling, MD	Section Chief, Infectious Diseases & Medical Director of Infection Control	Infectious Diseases and Chair of Infection Control Committee	4/2015