



# **Bloodborne Pathogens Exposure Control Plan**

*Office of Public Safety*

**March 2024**

## **Record of Changes and Distribution**

This plan will be reviewed annually to reflect changes in the Laboratory Safety Program, Blue Ridge Community College policies, and government regulations under the governance of the Financial and Administrative Services Committee.

Recommended changes to this document will be submitted to the Vice President of Finance and Administration for review and final approval.

This plan will be distributed electronically to all laboratory personnel and will be available to all BRCC faculty, staff, and students on the [BRCC website](#).

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# I. INTRODUCTION

## 1. Purpose

Blue Ridge Community College's (BRCC) *Bloodborne Pathogens Exposure Control Plan* covers employees whose job duties include the risk of reasonably-anticipated occupational exposure to human blood and/or other potentially infectious materials (OPIM), and complies with 29 CFR 1910.1030 *Bloodborne Pathogens*. This plan applies to BRCC employees only; contractors are expected to comply with 29 CFR 1910.1030 and their own company's exposure control plan.

The Office of the Vice President of Finance and Administration oversees the development and implementation of Blue Ridge Community College's Bloodborne Pathogens Exposure Control Plan.

## 2. Training and Exercises

BRCC shall conduct annual training for all faculty and staff whose job duties include the risk of reasonably anticipated occupational exposure to human blood or other potentially infectious materials to include but not limited to the following:

- An accessible copy of the regulatory text of this standard and an explanation of its contents;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
- Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
- An explanation of the basis for selection of personal protective equipment;
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
- Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and
- An opportunity for interactive questions and answers with the person conducting the training session.

### 3. *Employee rights*

The Occupational Safety and Health Act of 1970 provides rights to employees that offer protection from hazards in the workplace. For more information visit [osha.gov/workers](https://www.osha.gov/workers).

### 4. *Reporting*

Incidents, Accidents, or Occurrences resulting in personal injury and/or illness, disruption of normal activities or business interruption shall be reported as follows;

- Any serious injury, illness or fatality shall be reported to the Emergency Preparedness and Safety Manager at the VCCS System Office immediately.
- Employees: Incidents or accidents that involve employees shall be reported to Human Resources, Public Safety and any other appropriate college officials. Fatalities, in-patient hospitalizations, amputations, or loss of an eye must be reported to VOSH, per 29 CFR 1904.39.
- Students: Incidents or accidents that involve students shall be reported to the Dean of Students (or appropriate Vice President), Public Safety and any other appropriate college officials.
- Non-Employees/Non-Students: Incidents or accidents that involve non-employees or non-students shall be reported to Public Safety and appropriate college officials.

### 5. *Regulatory Agencies*

The following agencies regulate laboratory activities and provide guidance and direction concerning the use of chemicals in the laboratory.

- **The Occupational Safety and Health Administration (OSHA)** develops and enforces regulations based on federal statutes. ([www.osha.gov](https://www.osha.gov))
- **The Environmental Protection Agency (EPA)** develops and enforces environmental regulations to protect human health and the environment. ([www.epa.gov](https://www.epa.gov))
- **The National Institute for Occupational Safety and Health (NIOSH)** is a research division of the Centers for Disease Control and Prevention (CDC) created by the Occupational Safety and Health Act of 1970. ([www.cdc.gov/niosh](https://www.cdc.gov/niosh))
- **Virginia Occupational Safety and Health (VOSH)** is the Commonwealth's counterpart to the federal Occupational Safety and Health Administration (OSHA). The VOSH Program is responsible for enforcing occupational safety and health laws and regulations in the private and public sectors <https://www.doli.virginia.gov/vosh-programs/>
- **Virginia Department of Environmental Quality** establish standards and procedures for the management of all RMW including proper packaging, labeling, storage, transport, transfer, treatment, and disposal <https://www.deq.virginia.gov/our-programs/land-waste/solid-hazardous-waste/specialty-waste/medical-waste>

## II. ROLES AND RESPONSIBILITIES

It is the responsibility of all employees, affiliates, students, and visitors to conduct laboratory work and activities in a manner that will not adversely impact themselves, other laboratory personnel, Blue Ridge Community College property, the surrounding community, or the environment. The implementation of a comprehensive laboratory safety

program relies on the complete support and cooperation of various university entities.

- **Vice President of Finance and Administration (VPFA):** The office of the VPFA is responsible for the development and maintenance of the *Bloodborne Pathogens Exposure Control Plan*.
- **Deans or Directors:** Each Dean or Director has the responsibility for implementing the provisions of this plan into academic and operational activities as required. This plan is to be used jointly with the Chemical Hygiene and Laboratory Safety Plan. Each Dean or Director is responsible for notifying Human Resources or Public Safety of any employees requiring Bloodborne Pathogen training as it relates to their specific job requirements.
- **Director of Human Resources and Director of Public Safety:** The administration of this plan will be the joint responsibility of the Director of Human Resources and the Director of Public Safety. Human Resources will provide Bloodborne Pathogen training to eligible employees during their orientation period. Annual training will be managed by the Public Safety Office.
- **Human Resources Department:** As it relates to Worker's Compensation, the Human Resources Department is responsible for maintaining and updating the sharps injury log, maintaining records regarding exposure incidents, providing worker's compensation medical providers with appropriate documentation, arranging for post exposure care as needed, and notifying the Director of Public Safety when an incident has occurred.
- **Buildings and Grounds** – The Building and Grounds department is responsible for the maintaining laboratory equipment to include inspections, new installations, and repairs.
- **Personnel** - Include administrators, faculty, staff, and paid students who may be potentially exposed to blood or OPIM. This does not refer to students enrolled in instructional courses. Personnel within this category are required to attend initial and annual training. In addition, new personnel must accept or decline an HBV immunization within 10 days of the start of employment. BRCC's Human Resources Department will provide vaccine coordination to employees wishing to receive the HBV immunization.

### III. EXPOSURE DETERMINATION

BRCC has identified personnel with potential exposure to bloodborne pathogens in the workplace, based on the general work environment or on specific work activities. The following work activities were identified as having potential exposure to bloodborne pathogens:

- Being trained as a first aid provider;
- Working in a clinical setting;
- Working in a laboratory with human blood or OPIM; and
- Containing and/or cleaning spills of blood or OPIM.

Employees listed below must attend *Bloodborne Pathogens Training*, and comply with all requirements of this plan:

- Buildings and Grounds
- EMS
- Non-credit Healthcare
- Nursing
- Public Safety
- Veterinary Technology

### 1. *Exposure Control*

Engineering and work practice controls are methods used to eliminate or minimize personnel exposure to bloodborne pathogens.

### 2. *Universal Precautions*

Universal precautions will be observed at BRCC in order to prevent contact with blood or OPIM. All human blood or OPIM will be considered infectious, regardless of the perceived status of the source material.

## IV. ENGINEERING CONTROLS

Engineering controls are devices or systems which isolate or remove the bloodborne pathogens exposure hazard from the workplace. In laboratories, biosafety cabinets are used for procedures with infectious or potentially-infectious materials when there is a potential for splash, splatter, or aerosol creation. Safe sharps are available to clinical personnel and recommended for laboratory personnel. Sharps containers are used for the disposal of sharps.

### 1. *Sharps Safety*

Needlestick incidents subject to the *Bloodborne Pathogen Standard* are reported to the Human Resources Worker's Compensation department.

### 2. *Work Practice Controls*

The following work practice controls must be incorporated for all at-risk work areas and personnel:

- Personnel shall wash their hands immediately or as soon as feasible after removal of gloves or other PPE.
- Personnel shall wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or OPIM.
- Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted below. Shearing or breaking of contaminated needles is prohibited.
  - Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed unless it can be demonstrated that no alternative is feasible or that such action is required by a specific medical or dental procedure.
  - Such bending, recapping, or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.
  - Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:
    - Puncture resistant;
    - Labeled or color-coded in accordance with this standard;
    - Leak-proof on the sides and bottom; and
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on

- countertops or benchtops where blood or OPIM are present.
- 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.
- Mouth pipetting/suctioning of blood or OPIM is prohibited.
- Specimens of blood or OPIM shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
  - The container for storage, transport, or shipping shall be labeled with the biohazard symbol and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling with the biohazard symbol is required when such specimens/containers leave the facility.
  - If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.
  - If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.
- Equipment which may become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.
- A readily-observable biohazard label shall be attached to the equipment stating which portions remain contaminated.

### 3. *Labels and Signs*

Potential bloodborne pathogen hazards are communicated to employees by a fluorescent orange or red-orange universal biohazard signs or labels. The universal biohazard signs or labels must be affixed to:

- Regulated medical waste;
- Refrigerators and freezers containing blood or OPIM;
- Other containers used to store, transport, or ship blood or OPIM;
- Contaminated equipment; and
- Entrances to laboratories or storage areas containing blood or OPIM.

The labels must be affixed as close as feasible to the container by string, wire, adhesive, or other method which prevents loss or unintentional removal. Contaminated equipment labels must include a description of which portions of the equipment are contaminated. In absence of a description, all surfaces of equipment are presumed to be contaminated.

The following are exempt from the labeling requirement:

- Containers of blood products that have been released for clinical use;
- Containers of blood or OPIM that are placed in a labeled secondary container for storage, transport, shipment, or disposal; and
- Regulated medical waste that has been decontaminated.



## V. PERSONAL PROTECTIVE EQUIPMENT

Where there is risk of occupational exposure, BRCC will provide, at no cost to the employee, appropriate PPE including, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. PPE will be considered "appropriate" only if it does not permit blood or OPIM to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

PPE shall be used and maintained as follows:

- If a garment is penetrated by blood or OPIM, the garment shall be removed immediately or as soon as feasible.
- All PPE shall be removed prior to leaving the work area.
- When PPE is removed, it shall be placed in an appropriately-designated area or container for storage, washing, decontamination, or disposal.
- Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, and non-intact skin; when performing vascular access procedures and when handling or touching contaminated items or surfaces.
- Disposable (single use) gloves, such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
- Disposable (single use) gloves shall not be washed or decontaminated for reuse.
- Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- Masks in combination with eye protection devices, such as goggles or glasses with solid side shields or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated.
- Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.
- Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

### 1. *Laundry Procedures*

Employees working in an area with potential bloodborne pathogens exposure should wear closed-toe shoes and clothing that covers the legs. Shorts may be worn in work areas where there is minimal likelihood of exposure, such as in a fitness facility where the only anticipated exposure would be first aid care. All, non-disposable PPE, such as lab coats, must be removed and inspected before leaving the work area. Any contaminated items must be appropriately

disinfected or laundered before reuse.

Each department or program is responsible for determining the need for a laundry service.

Employees must follow universal precautions when handling contaminated laundry. Contaminated laundry must be handled as little as possible with a minimum of agitation, and must be bagged and labeled at the location where it was used. Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior. Laundry contractors must comply with all decontamination and cleaning procedures outlined in 29 CFR 1910.1030.

## **VI. Housekeeping Procedures**

Housekeeping procedures are conducted to ensure proper decontamination of surfaces in areas where contamination with blood or OPIM may occur. Employees are responsible for ensuring proper decontamination procedures are followed and that proper disinfectants are used.

- All equipment and surfaces in the work area must be cleaned and decontaminated after contact with blood or OPIM, after completion of procedures where blood or OPIM may have been spilled, and at the end of the work shift. Contact Public Safety if assistance is needed in determining an appropriate disinfectant.
- Disposable protective barriers used on surfaces and equipment must be removed and replaced as soon as feasible when overt contamination occurs or at the end of the work shift if they may have become contaminated. When removed, the surface under the barrier should be decontaminated with the appropriate disinfectant prior to replacing the barrier.
- All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood of becoming contaminated must be inspected and decontaminated on a regular schedule or as soon as feasible if known contamination occurs.
- Small spills may be cleaned by laboratory personnel following the following steps:
  - Isolate the spill area, don appropriate PPE, and lay absorbent materials on top of the spill.
  - Spray the spill area with 10% bleach solution, saturating all materials.
  - After 20 minutes of contact time; remove all absorbent material and place in a red bag for disposal.
  - Spray the spill area with 10% bleach solution, and conduct a final wipe of the area, working from the outside-in.
- In addition, the college contracts with an outside contractor who is responsible for Bloodborne Pathogen training for custodial personnel. This training includes methods on how to properly clean small spills of blood or OPIM to ensure that the area is properly disinfected.

- For large spills, of blood or OPIM, and in instances where you are unsure of response, isolate the spill area and alert other area personnel, then contact Public Safety as soon as possible for assistance. BRCC will contract with an outside contractor for any large spills outside of the normal scope of the custodial contractor.
- Contaminated broken glassware or other sharp objects must be cleaned up using mechanical devices such as tongs, forceps, or a disposable brush and dust pan, and placed in a sharps container for disposal.

## **VII. Regulated Medical Waste**

Regulated medical waste includes the following materials: liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

All regulated medical waste must be placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled, and closed prior to removal to prevent spillage or protrusion of contents during handling. Contaminated sharps must be discarded immediately, or as soon as possible after use, in containers that are closable, puncture-resistant, leak-proof on sides and bottom, and appropriately labeled. Sharps disposal containers must be easily accessible and as close as feasible to the immediate area where sharps are used.

All regulated medical waste must be treated in accordance with Virginia Department of Environmental Quality Regulated Medical Waste Management Regulations. Regulated medical waste from most laboratories must be inactivated using a steam autoclave, and can then be discarded as nonregulated waste. Only personnel who have been trained to operate an autoclave are permitted to treat regulated medical waste. Regulated medical waste from health clinics, childcare centers, athletic facilities, housekeeping operations, and selected laboratories is packaged in approved shipping containers for off-site incineration.

## **VIII. Hepatitis B (HBV) Vaccinations; Post Exposure Evaluation, and Follow-Up**

BRCC offers the HBV vaccination series to all employees with potential occupational exposure to blood or OPIM. Post-exposure evaluation and follow-up may be necessary in the event of an exposure incident.

BRCC shall ensure that all medical evaluations and procedures, including the HBV vaccination series and post-exposure follow-up including prophylaxis, are:

- Made available at no cost to personnel;
- Made available at a reasonable time and place;
- Performed by or under the supervision of a physician or other licensed healthcare provider; and

- Provided according to the recommendations of the United States Public Health Service.

### 1. *Hepatitis B Virus (HBV) Vaccination*

Supervisors are responsible for ensuring that employees attend Bloodborne Pathogens Training upon initial assignment to a job where they may be exposed to blood or OPIM. During initial training, employees will be asked to complete a Hepatitis B Vaccination Form, indicating their acceptance or declination of the HBV vaccination. An employee may accept or decline the HBV vaccine for any reason, and is not obligated to provide any explanation.

A vaccine authorization letter will be sent to all employees who request the vaccine, and the authorization letter may be taken to any HR approved location to get the vaccine. The vaccine is given as a series of three separate injections; and all three injections must be administered according to schedule in order for the vaccine to be effective. A post-vaccination titer for HBV antigens is recommended, but not required; and is typically scheduled for one-to-two months after the third injection. Each employee is responsible for scheduling and following through with vaccine administration.

Any employee who initially declines the HBV vaccine, but later decides to accept the vaccination while still covered by the standard, shall be asked to submit a new Hepatitis B Vaccination Form.

### 2. *Post-exposure Evaluation and Follow-Up Procedures*

An exposure is defined as: (1) blood or OPIM contact with a specific eye, mouth, or other mucous membrane; (2) blood or OPIM contact with damaged or non-intact skin; or (3) parenteral contact with blood or OPIM that results from the performance of an employee's duties. Blood or OPIM contact with intact skin is not considered an exposure incident.

If exposed to blood or OPIM, an employee should immediately take steps to address any serious injury and rinse the site of exposure.

- Seek emergency medical care for serious injuries, if necessary. Inform responding personnel that a potential bloodborne pathogen exposure has occurred.
- If no emergency treatment is necessary, remove any contaminated PPE or clothing covering the exposure area and begin flushing with soap and water for 15 minutes. The area should be washed thoroughly, but not scrubbed to avoid any further risk of exposure or damage.
- If exposure occurs to the eyes, flush with water for 15 minutes using an eyewash station.
- After flushing, provide first aid treatment, if necessary.
- Disinfect any contaminated equipment where exposure occurred.. (Seek assistance if needed.)
- Dispose of any contaminated materials in a biohazard waste receptacle.

Following the initial exposure response, the employee should address any potential exposure by completing an incident report and seeing an occupational health physician.

Isolate a sample for testing, if feasible.

- Notify your supervisor as soon as possible after the exposure incident.

- The employee or supervisor should also notify Public Safety of the exposure as soon as possible.
- Seek medical evaluation for guidance on post-exposure evaluation, as needed.
- As soon as feasible, complete a First Report of Injury form with Human Resources and send it to the Workers' Compensation Department.

## IX. Recordkeeping

In accordance with 29 CFR 1910.1020, employee records shall be made available to employees, the Assistant Secretary of Labor for Occupational Safety and Health Administration, and the Director of the National Institute for Occupational Safety and Health, or their representatives, upon request. BRCC is considered a [partially exempt](#) industry and is exempt from keeping OSHA injury and illness records unless asked to do so in writing by OSHA.

Employee records are maintained as follows:

Record	Location	Duration
Medical records: <ul style="list-style-type: none"> <li>• Employee's name and</li> <li>• HBV vaccination forms indicating acceptance or declination of vaccine.</li> </ul>	Human Resources	Duration of employment plus 30 years
Training records: <ul style="list-style-type: none"> <li>• Date of training;</li> <li>• Outline of the materials presented;</li> <li>• Name of person conducting the training; and</li> <li>▪ Names of all persons in attendance.</li> </ul>	Public Safety	At least three years from the date of training