

Bloodborne Pathogen Exposure Control Plan

Marin Community College District

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I. INTRODUCTION

A. Regulations

The Bloodborne Pathogen Standard was put into effect by the California Division of Occupational Safety and Health Administration (Cal/OSHA) as part of the California Code of Regulations (CCR). The purpose is to reduce occupational exposure to human materials and other potentially Infectious Materials (OPIM). This Exposure Control Plan is designed to meet Cal/OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030. The objective of this plan is to:

- To protect employees, students, and volunteers from the health hazards associated with bloodborne pathogens.
- To provide appropriate post-exposure follow up should employees, students, and volunteers become exposed to bloodborne pathogens.

B. Bloodborne Pathogens

Bloodborne pathogens (BBPs) are microorganisms present in blood that can cause disease in human beings; these include bacteria, viruses, parasites, and fungi. Exposure to BBPs can occur via a splash, spray, or aerosolization of potentially infectious material onto the eyes, nose, or mouth or penetration through breaches in the skin (e.g., an accidental needle stick from a BBP contaminated sharp). Symptoms of acute infection from exposure to most BBPs are initially present with common mild, flu-like symptoms (e.g., fever, headache, fatigue, loss of appetite, general discomfort, etc.). Infection may lead to prolonged symptoms and sickness.

C. Hepatitis B Vaccination

The Marin Community College District campus-wide Bloodborne Pathogen - Exposure Control Plan (BBP-ECP) describes how to eliminate or minimize the exposure to infectious materials that might hold bloodborne pathogens

Personnel that work with, or around, materials subject to the BBP standard are listed in Appendix A. This group includes all personnel that may have occupational exposure to BBPs at Marin Community College District. This group of individuals must know that there are several general principles that should be followed when working with BBPs, or materials potentially having BBPs:

A highly effective (>90%) hepatitis B vaccine (HBV) is readily available and highly suggested. Vaccines can be found at local clinics in Marin and across the greater Bay Area. And they are generally free with insurance. The Marin Community College District does not currently provide the hepatitis B vaccination series. If personnel choose not to accept or take the vaccine; they must formally decline by signing an HBV vaccine declination waiver found in Appendix B. HBV vaccine declination records will be kept on file with the Program Coordinator, Health & Safety and all other relevant locations. For individuals who have previously received the complete hepatitis B vaccination series (usually as a child). There is no need to re-vaccinate.

Appropriate personal protective equipment (PPE) will be provided to all personnel that will have occupational exposure, such as lab coats, safety glasses, safety goggles, gloves, masks, and face shields, etc. These items must be worn when handling human blood or OPIM.

Safety engineered sharps and needleless systems must be used whenever possible especially when working with human blood or OPIM.

Anyone who is handling human blood or OPIM must undergo BBP training that meets all expectations outlined in [Appendix C](#) (Bloodborne Pathogen Training Requirements). This must occur at the time of initial assignment of tasks where occupational exposures may take place and before procedures involving bloodborne pathogens are started. Annual BBP refresher training is determined thereafter based off incidents that may occur or have occurred since the most recent training session, demand and other relevant factors that may arise.

D. Applicability

This BBP-ECP applies to all personnel (listed in [Appendix A](#)) at the Marin Community College District, who may contact BBP materials during their work. This plan also applies to teaching laboratories, classrooms and all other facilities that may handle blood or OPIM at the Marin Community College District. This plan adheres to the California Occupational Safety and Health Administration (Cal/OSHA) Bloodborne Pathogens (BBP) Standard. (California Code of Regulations, Title 8, Section 5193).

E. Roles and Responsibilities

District Responsibilities

- Update the BBP-ECP plan as necessary, including an annual evaluation to determine the effectiveness of the plan.
- Address all campus concerns or questions about working with BBPs with the program coordinator for health and safety.

Personnel working with Bloodborne Pathogens

- Review and become familiar with the components of the Marin Community College District Bloodborne Pathogen Exposure Control Plan.
- Apply Universal Precautions to all protocols involving materials with BBPs.
- Report any exposure, accident, overt biohazardous spill, injury, or illness as soon as possible. In case of emergency call 911. *

F. Training Requirements

Anyone who may have potential occupational exposure to BBPs (listed in [Appendix A](#)) must complete Bloodborne Pathogen training. This training meets the expectations of the Bloodborne Pathogen Standard. More information on the training requirements can be found in [Appendix C](#). The training program covers but not limited to the following elements:

- The OSHA standard for Bloodborne Pathogens.

- This Exposure Control Plan.
- Epidemiology and symptomatology of BBP's.
- An explanation of the use and limitations of controls, work practices, signs, and PPE.
- Hepatitis B vaccine information.
- Modes of Transmission.
- Procedures which might cause exposure to blood or other potentially infectious materials.
- Post Exposure evaluation and follow-up.
- Signs and labels used at the facility.
- Questions and answers session.

II. Methods of Compliance

A. Universal Precautions

Universal precautions should be observed to prevent contact with blood or OPIM. All blood or OPIM should be assumed to be infectious. Based on this assumption, all personnel must use good work practices and engineering controls, as well as protective equipment (ppe), to minimize or eliminate exposure. Following Universal Precautions requires strict adherence to all protocols in the following sections of this document. Applying Universal precautions is regarded as a best practice to infection control.

B. Engineering Controls

Engineering controls can be used to eliminate or minimize exposure risks. All procedures involving human blood or OPIM shall be performed to minimize splashing, spraying, spattering, and generation of droplets.

Acceptable engineering controls include, but are not limited to:

- Biological safety cabinets, splash shields, capped centrifuge cups & tubes, vacutainer transfer devices, extension tubing, sharps containers, ventilation, handwashing sink, and mechanical pipetting devices.

Engineering controls, and selecting such controls, should be appropriate for the procedures being performed by personnel in their respective work areas.

C. Engineered Sharps Protection

Needless systems or safety engineered sharps devices are used to eliminate or reduce occupational injury due to sharps. These devices should be used whenever possible.

The sharp's containers shall be maintained upright throughout use, replaced routinely, and not allowed to be overfilled. Before moving containers of contaminated sharps from the area of use, the containers shall be closed to prevent spillage or protrusion of contents during handling, storage and transport. Disposable sharps shall only be placed in disposable containers. Contaminated sharps that are reusable are to be placed immediately, or as soon as possible, after use into appropriate sharps containers. Sharps containers are to be puncture resistant, labeled with a biohazard label, and are leak proof.

All sharps' containers must be labeled with the words "sharps waste" and/or with the international biohazard symbol and the word "BIOHAZARD."

D. Restricted Access

When work with blood or OPIM is being performed, nonlaboratory personnel, such as maintenance workers, delivery personnel, administrative staff, and any other individuals not affiliated with the work being performed are discouraged from entering. If it becomes necessary for them to enter, the hazards of the work must be fully explained to them, prior to entering. The instructor or individual leading the work should be the one to notify the third party of the hazards before entering.

E. Labeling

Cal/OSHA requires warning signs at the entrance to work areas where exposure to bloodborne pathogens is possible. A biohazard warning label with the universal biohazard symbol must be posted on entry doors to the laboratory work area.

All BPP associated materials must be stored in puncture & leak-proof containers labeled with a biohazard symbol.

Biohazard warning labels must be posted onto containers of regulated waste, refrigerators, freezers, or other pieces of equipment used for blood or OPIM.

If label(s) are starting to show signs of wear and tear and become illegible, steps must be taken to replace the label immediately.

Applying universal precautions in the handling of blood specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing the specimens. This exemption only applies while such specimens/containers remain within the facility it is being used in.

NOTE: Other labeling provisions, i.e., Health and Safety Code Sections 118275 through 118320 may be applicable.

F. Hygiene

Hand Washing

All personnel must wash their hands with soap after handling blood, or OPIM, and immediately upon any direct contact with these materials. Cal/Osha requires that handwashing facilities be readily accessible after incurring exposure. Handwashing facilities are found in laboratories. When handwashing is not possible, personnel must use an antiseptic hand cleanser with a clean cloth or paper towels.

G. Decontamination

Equipment and Working Surfaces

Individuals working with blood or OPIM are responsible for keeping their immediate work area clean and sanitary. All equipment and working surfaces should be cleaned and decontaminated using a disinfectant with an EPA registration number.

Decontamination should occur:

- Immediately when surfaces are contaminated, or after any spill.
- When the procedures are completed.
- At the end of the session if the surface(s) become contaminated since the last cleaning.

Receptacles

All buckets, pails, cans, bins, baskets intended for re-use that have a reasonable likelihood of becoming contaminated with human blood or OPIM must be inspected and decontaminated regularly (after every working day) by personnel leading the session, and as soon as possible after known contamination.

Protective Coverings

Disposable protective coverings such as plastic wrap(s) or foil(s) of any kind used to cover equipment and work area surfaces, must be replaced as soon as possible when they become contaminated or at the end of the session if they have become contaminated during the day.

H. Personal Protective Equipment

All personal protective equipment (PPE) used will be provided. PPE will be chosen based on the anticipated exposure to blood or OPIM. The protective equipment will be considered appropriate only if it does not permit blood or OPIM to pass through or reach individuals' clothing, 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.

Protective clothing will be provided to individuals engaged in BBP-related activities. Managers or supervisors should make sure all personnel have access to appropriate PPE at all times.

PPE should be used by all personnel working with blood or OPIM materials. Appropriate PPE includes laboratory lab coats, safety glasses, safety goggles, gloves, masks, and chin length face shields.

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, or OPIM, non-intact skin, and mucous membranes. Disposable gloves used are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

Utility gloves may be decontaminated for re-use if the glove is not compromised. Utility gloves should be discarded if they are cracked, peeling, torn, punctured, or have other signs of deterioration or when their ability to function as a barrier has been conceded.

Masks in combination with eye protection devices, such as goggles or glasses with solid side shield, or chin length face shields, must be worn whenever splashes, spray, splatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated. Situations which would require such protection are as follows:

- Performing tasks involving potential blood splatter, splashes, spray or droplets of blood or OPIM.
- Any situation where there is a risk of exposure to splatter, splashes, spray or droplets of blood or OPIM.

I. Transportation on Campus

Blood or OPIM materials must be placed in a container that prevents leakage during collection, handling, processing, storage, and transport. If samples are transported outside into public spaces the container must be lidded, leakproof, puncture proof, and labeled with the Biohazard Symbol and have enough absorbent material on hand to collect the spill.

J. Spill Clean-up Procedure (model)

1. Remove any contaminated clothing.
2. Evacuate the area if appropriate. In case of an emergency call 911*
3. If broken glass is involved, pick up large pieces with pliers or tongs and dispose in a medical waste sharps container. Contact maintenance and facilities if help is needed with this step.
4. Distribute paper towels around the periphery of the spill, moving towards the center.
5. Spray or pour 10% bleach or approved disinfectant on the paper towels.
6. Allow at least 30 minutes of contact time.
7. Pick up the paper towels with large forceps or tongs and put them in biohazardous waste bags (avoid direct contact with contaminated towels, even with gloved hands)
8. Clean and disinfect the forceps or tongs and any other non-disposable items.
9. Remove PPE.
10. Report the spill to the Program Coordinator, Health & Safety and / or your manager or supervisor.
11. If an occupational exposure occurred during clean up, seek medical attention Immediately. (see section L. Post Exposure Procedure)

K. Prohibited Practices

- Breaking of contaminated needles and other contaminated sharps is prohibited.
- Contaminated sharps must not be bent, recapped, or removed prior to decontamination.
- Eating, drinking, applying cosmetics or lip balm, smoking, or handling contact lenses are prohibited in work areas where there is a risk of occupational exposure. (signage may be needed for this)
- Food and drink should not be kept in refrigerators, freezers, shelves, cabinets or on countertops, or benchtops where blood or OPIM are present.

L. Post Exposure Procedure

Following initial first aid (clean the wound, flush eyes, - etc.), the following should be performed:

When an employee and or student in a clinical occupational setting has an exposure incident, they should immediately report it to their superior and Human Resources. All exposure incidents shall be reported, investigated, and documented.

The analyst for Workers' Compensation will notify the Health & Safety Coordinator of the incident. The analyst for Workers' Compensation will document the exposure incident on the standard Workers' Compensation form. The employee/student will fill out a Sharps Injury Report Log. The supervisor will fill out the Supervisor's Report of Injury form. Both forms will be sent to the analyst for Workers Compensation. The Health & Safety Coordinator will prepare and keep the sharps injury log. (See Sharps Injury Log Appendix.) Following an exposure incident report, the employee/student shall contact the Company Nurse Injury Hotline at (877) 518-6702. The company nurse will gather the relevant information and help send the employee/student to the appropriate treatment center for evaluation if deemed necessary. This evaluation will follow the protocol and shall include:

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred
- Identification and documentation of the source individual, including testing the source individual's blood, unless such identification is not feasible or prohibited by federal, state or local law or a combination.
- Testing the employee's blood for HBV and HIV serological status, with the employee's consent
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing is not needed.
- Post-exposure prophylaxis when medically indicated [e.g. HBV vaccine, ISG (gamma globulin), or HBIG (immune globulin)].
- Counseling regarding risk status, precautions to take and appropriate follow-up
- Evaluation of reported illnesses

When a student (in a non-clinical setting) has an exposure incident. They should report it immediately to their instructor or other supervising authority. All exposure incidents shall be reported, investigated, and documented. The student and instructor or other supervising authority shall complete the *Student Accident and Injury Report Form*. And submit a copy to the Student Health Services Center within ten days of injury to be properly covered for reimbursable expenses in accordance with policy coverage.

The health care professional shall provide the employee or student injured with a copy of the evaluating health care professional's written documentation within 15 working days of the evaluation.

Exposed personnel should be provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).

Protocol For Evaluating the Circumstances Surrounding an Exposure Incident. The following will be reviewed by the Health and Safety Coordinator and the relevant employees of the exposure incidents to determine:

- Engineering controls in use at the time.
- Device(s) being used (including type and brand)
- protective equipment or clothing used at the time of the exposure incident (gloves, eye shields, etc.)
- Location of the incident.
- Procedure being performed when the incident occurred.
- Training.

M. Regulated Waste

Regulated waste means contaminated items that would release blood or OPIM if compressed; items that are caked with dried blood or OPIM and can release these materials during handling; contaminated equipment or sharps; and pathological and microbiological wastes containing blood or OPIM.

Regulated waste shall be placed in containers which are:

- Closable.
- Constructed to contain all contents and prevent leakage during handling, storage, transport or shipping.
- Labeled or color-coded in accordance with Cal/OSHA blood pathogen standard.
- Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

N. Sharps Injury Log

A sharp is any object used or encountered that can be reasonably anticipated to penetrate the skin or any other part of the body, resulting in an exposure incident. Sharps include, but are not limited to, needle devices, scalpels, lancets, broken glass and capillary tubes, exposed ends of dental wires and knives, drills, and burs.

A sharps injury is any injury caused by a sharp, including cuts, abrasions, or needlesticks. To record a sharps injury, fill out the Sharps Injury Log as comprehensively as possible. It can be found in [Appendix D](#) of this plan. The Sharps Injury Log should be completed after an incident, if known or available, and documented within 14 working days of the date on which each exposure incident was reported. and sent to the Health and Safety Coordinator for recordkeeping.

O. Medical Records.

An accurate record for each individual with occupational exposure will be established and maintained, in accordance with 29 CFR 1910.1020. This record shall include:

- The name of the individual.
- A copy of the individual's hepatitis B vaccination status including dates and any medical records relative to the individual's ability to receive vaccination.
- A copy of all results of examinations, medical testing, and follow-up procedures.

- Copy of the healthcare professional's written opinion.

Confidentiality.

Medical records are kept confidential and not disclosed without the individuals express written consent to any person within or outside the College except as required by this section or as may be required by law. The employer shall maintain the records for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

P. Reviews and Updates

Personnel will receive training. (This training is to be conducted within one year of the employee's previous training or whenever training is deemed necessary.) The requirements for the training material are in Appendix C.

The Marin Community College Districts' Blood Borne Pathogen Emergency Control Plan is reviewed and updated whenever necessary to include new or modified tasks or procedures that affect occupational exposure, new or revised position(s) that involve occupational exposure, reviews and responses to information indicating that the existing exposure control plan is deficient in any area.

All faculty, staff and students are encouraged to provide suggestions on improving the protocols listed on this Plan.

Contact the Health and Safety Coordinator (svila6772@marin.edu) on suggestions, questions and all other concerns regarding this plan.

Appendix A

Classification List with Exposure Determination

OSHA requires an exposure determination concerning which personnel may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear PPE.) Category 1 lists all job classifications in which personnel have occupational exposure.

In addition, OSHA requires a listing of classifications in which some personnel may have occupational exposure. Since not all the personnel in this category would be expected to incur exposure to blood or other OPIM, classifications positions that would cause these personnel to have some occupational exposure are listed in Category 2.

At-Risk Classification List with BBP Exposure Determination:

Category 1: The following are classifications positions at Marin Community College District in which all have occupational exposure:

- a. Laboratory Personnel
- b. Students enrolled in courses where BBP sampling is conducted
- c. Laboratory Instructors
- d. Laboratory students
- e. Nursing Instructors
- f. Nursing students

Category 2: The following are classifications positions at Marin Community College District in which some may have occupational exposure:

- a. Registered Nursing Education Program students
- b. Registered Nursing Education Program faculty & staff
- c. Program Coordinator Health & Safety
- d. Maintenance staff

Appendix B

Waiver of Hepatitis B Virus Vaccine

I know I may be susceptible to contracting the hepatitis B virus (HBV) due to my occupational exposure to human blood or OPIM. The opportunity to receive a free hepatitis B vaccination has been extended to me. I do not, however, currently accept the hepatitis B vaccination. I am aware that I run the risk of contracting the dangerous illness hepatitis B if I choose not to receive this vaccination. In the future if I continue to have occupational exposure to blood or OPIM and I want to be vaccinated with the hepatitis B vaccine, I can receive the vaccination.

Date

Printed Name:

Signature:

Date

Employer Printed Name:

Employer Signature:

Appendix C

Bloodborne Pathogen Training Requirements

Training will be conducted before initial assignment to tasks where occupational exposure may occur. This training meets the expectations of the Bloodborne Pathogen Standard.

The training program covers, the following elements:

1. The OSHA standard for Bloodborne Pathogens
2. This Exposure Control Plan.
 - a. Points of the plan, roles & responsibilities, how the plan will be implemented, how to obtain a copy, etc.
3. Epidemiology and symptomatology.
 - b. A general explanation of the epidemiology and symptoms of bloodborne diseases
4. An explanation of the use and limitations of controls, work practices, signs, and PPE.
 - c. Methods of compliance used to control exposure to blood or other potentially infectious materials.
 - d. Personal protective equipment availability.
5. Hepatitis B vaccine.
 - e. General information on the vaccine
6. Modes of Transmission.
 - f. An explanation of the modes of transmission of bloodborne pathogens.
7. Procedures which might cause exposure to blood or other potentially infectious materials.
8. Post Exposure evaluation and follow-up.
 - g. Information on the post-exposure evaluation and follow-up.
9. Signs and labels used at the facility.
 - h. An explanation of the signs and labels required by the Cal/OSHA BBP standard.
10. Questions.
 - i. An opportunity for questions and answers (Q&A).

Appendix D

Sharps Injury Log

The following information, if known or available, is documented within 14 working days of the date on which each exposure incident was reported.

1. Date and time of the exposure incident: _____

2. Date of exposure incident report: _____ Report written by: _____

3. Type and brand of sharp involved _____

4. Description of exposure incident:

- Job classification of exposed employee: _____
- Work area where the incident occurred: _____
- Procedure being performed by the exposed employee at the time of the incident:

- How the incident occurred: _____
- Body part(s) involved: _____

5. Comments on the exposure incident (e.g., other relevant factors involved):

6. Picture(s) of the sharp(s) involved (please attach if available)

Appendix D

Sharps Injury Log 2

Date	Type of Device (e.g., syringe, suture needle)	Brand Name of Device	Work Area Where Injury Occurred (e.g., Lab)	Brief Description of How the Incident Occurred [i.e., procedure being done, action being performed (disposal, injection, etc.), body part injured]