

Hackensack Meridian Health Center for Discovery and Innovation Exposure Control Plan

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Introduction

The Hackensack Meridian Health Center for Discovery and Innovation (CDI) is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030. “Occupational Exposure to Bloodborne Pathogens.”

The exposure control plan is a key document to assist our firm in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure
- Implementation of various methods of exposure control, including:
 - Universal Precautions
 - Engineering and Administrative Controls
 - Personal Protective Equipment
 - Housekeeping
- Hepatitis B Vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training.
- Recordkeeping
- Procedures for evaluating circumstances surrounding an exposure incident

Exposure Control Plan Implementation

- The Institutional Biological Safety Officer (BSO) is responsible for the implementation of the Exposure Control Plan. The BSO will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.
 - Sean Fitzgerald is the Institution Biological Safety Officer and can be reached at 201-880-3661 or 201-250-1024.
- Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in the ECP.
- Laboratories, in coordination with the CDI, will provide all necessary personal protective equipment (PPE), engineering controls, labels, and red biohazard waste bags as required by the standard. They will also ensure the adequate supplies of the aforementioned equipment are available in appropriate sizes.
- Hackensack Meridian Health’s Employee Health Department will be responsible for ensuring that all medical actions required are performed and that appropriate employee health and OSHA records are maintained.
 - Employee Health can be reached at 551-996-8663.

- The Institutional Biological Safety Officer will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.
 - The Institutional Biological Safety Officer is Sean Fitzgerald reached at 201-880-3661 or 201-250-1024.

Employee Exposure Determination

The following is a list of job classifications in which some employees at our establishment have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals.

Job Title, Locations, Tasks

- Principal Investigator, Scientist, Associate Scientist, Post-Doctoral Researcher, Laboratory Manager, Research Technician
 - These roles will operate within the Hackensack Meridian Health Nutley Campus in Buildings 123, 123A, and 102.
 - They will perform: general laboratory techniques including cell culture, genetic modification, animal infections, human and animal tissue processing, handling and processing of human research materials, and regulated medical waste handling.
- Laboratory Animal Facility Manager, Veterinarian, and Laboratory Animal Care Technician.
 - These roles will operate within the Hackensack Meridian Health Nutley Campus in Building 123A.
 - They will perform general animal care processes that could involve care of animals treated with bloodborne pathogens that may have the ability to transmit these pathogens to humans. They will also handle infectious or potentially infectious animal tissues and regulated medical waste.

Methods of Implementation and Control

Universal Precautions

- All employees will utilize universal precautions

Exposure Control Plan

- Employees covered by the bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees have an opportunity to review this plan at any time during their work shifts by contacting the institutional biological safety officer. IF requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of request.
- The institutional biological safety officer is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices

- Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below:
 - Universal Precautions
 - Standard Microbiological Procedures
 - Biological Safety Cabinets
 - Sharps Reduction Procedures
 - Mechanical Sharps Removal Devices
- Sharps disposal containers are inspected and maintained or replaced by laboratory staff whenever necessary to prevent overfilling.
- The facility identifies the need for changes in engineering control and work practices through compliance reviews, the Institutional Biosafety Committee, and the Institutional Animal Care and Use Committee.
- We evaluate new procedures or new products regularly by meticulous review with the safety oversight staff and researchers. We aim to examine how these pieces of equipment are being utilized and how this use could lead to potential releases and exposures.
- The Office of Biological Safety will ensure the effective implementation of these recommendations.

Personal Protective Equipment

- PPE is provided to our employees at no cost to them. Training is provided by the Institutional Biosafety Officer in the use of appropriate PPE for the tasks or procedures employees will perform.
- The Types of PPE available to employees are as follows:
 - Laboratory Coats
 - Front Covering Gowns
 - Shoes Covers
 - Face Shield
 - Gloves
 - Head Covers
 - N-95 respirators (pending a fit test)
 - Powered Air Purifying Respirator (PAPR, pending a medical clearance to wear a respirator)
- PPE is located within the laboratory areas and may be obtained by speaking with your laboratory manager or supervisor.
- All Employees using PPE must observe the following precautions:
 - Wash hands immediately or as soon as feasible after removal of gloves or other PPE.
 - Remove PPE after it becomes contaminated, and before leaving the work area.
 - Used PPE must be disposed of within the regulated medical waste boxes.
 - Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, puncturing, or deterioration.
 - Never wash or decontaminate disposable gloves for reuse.
 - Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
 - Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

Housekeeping

- Regulated Medical Waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labelled, and closed prior to removal to prevent spillage or protrusion of contents during handling.
 - These containers are reusable containers provided by the regulated medical waste vendor, Stericycle.
- Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak-proof on sides and bottoms, and labelled appropriately.
 - These containers are reusable containers provided by the regulated medical waste vendor, Stericycle.
 - Any bins are cleaned and decontaminated as soon as feasible after visible contamination.
 - Broken glassware which may be contaminated is picked up using mechanical means, such as a brush and dust pan.

Laundry

- Laboratory Coats and laboratory animal facility scrubs are the only current laundry that may come into contact with bloodborne pathogens within the Hackensack Meridian Health Center for Discovery and Innovation.
 - Laboratory coats will be laundered by commercial vendors selected by individual laboratories.
 - Animal facility scrubs will be laundered by animal facility personnel within on-site commercial washing machines.
 - The following laundering requirements must be met:
 - Handle contaminated laundry as little as possible, with minimal agitation.
 - Place wet, contaminated laundry in leak-proof, labeled or color-coded containers before transport.
 - Laboratory coats or animal facility scrubs and gloves must be worn when handling and/or sorting contaminated laundry.

Labels

- All equipment that comes into contact with bloodborne pathogens or other potentially infectious materials will have a biohazard label adhered to it.
- The laboratory manager will ensure warning labels are affixed or red bags are used as required if regulated medical waste or contaminated equipment is brought into the facility. Employees will notify the Institutional Biological Safety Officer if they discover regulated medical waste containers, refrigerators containing bloodborne pathogens or other potentially infectious materials, or any equipment coming into contact with these materials without proper labels.

Example:



Hepatitis B Vaccination

- The Employee Health Department will provide training to employees on hepatitis B vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.
- The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. Vaccination is encouraged unless:
 - o Documentation exists that the employee has previously received the series.
 - o Antibody testing reveals that the employee is immune.
 - o Medical evaluation shows that vaccination is contraindicated.
- If an employee chooses to decline vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at the Employee Health Department.
- Vaccination will be provided by the Employee Health Department.
- Following the medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the employee. It will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

Post-Exposure Evaluation and Follow-Up

- Wash skin with soap and water for at least 15 minutes and mucus membranes or eyes with plain water for at least 15 minutes.
- For Exposures that occur Mon. to Fri 7:30 am – 3:00 pm: Employees from Hackensack Meridian Health campuses go to the Employee Health Center located at 20 Prospect Avenue, Suite 715, Hackensack, NJ (551-996-8663).
 - For after-hours exposure, go immediately to the Hackensack University Medical Center Emergency Room (ER), 30 Prospect Avenue, Hackensack, NJ. Inform staff you are a researcher with biohazard exposure emergency and must be evaluated immediately.
 - For life-threatening emergencies, dial 911.
- An immediately available confidential medical evaluation and follow-up will be conducted by the Employee Health Department. Following initial first aid (clean the wound, flushing of the eyes or mucous membranes, etc.), the following activities will be performed:
 - Document the routes of exposure and how the exposure occurred.
 - Identify and document the source of the materials.
 - Obtain any needed consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity if this has not already been determined.
 - If the source is already known to be HIV, HCV, and/or HBV positive, new testing need not be performed.
 - Assure that the exposed employee is provided with the source test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source.
 - After obtaining consent, collect the exposed employee's blood as soon as feasible after the exposure incident, and test blood for HBC and HIV serological status.
 - If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

Administration of Post-Exposure Evaluation and Follow-Up

- The Institutional Biological Safety Officer ensures that health care professionals responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's bloodborne pathogens standard.

- The Employee Health Department ensures that the health care professional evaluating an employee after an exposure incident receives the following:
 - A description of the employee's job duties relevant to the exposure incident.
 - Route(s) of exposure.
 - Circumstances of exposure.
 - If possible, results of the source testing.
 - Relevant employee medical records, including vaccination status.
- The Employee Health Department will provide the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

Procedures for Evaluating the Circumstances Surrounding an Exposure Incident

- The Institutional Biological Safety Officer will review the circumstances of all exposure incidents to determine:
 - Engineering controls in use at the time
 - Work practices followed
 - A description of the device being used
 - Protective equipment or clothing that was used at the time of the exposure incident
 - Location of the incident
 - Procedure being performed when the incident occurred
 - Employee's training

The Employee Health department will record all percutaneous injuries from contaminated sharps in the Sharps Injury Log.

If it is determined that revisions need to be made, the Institutional Biological Safety Officer will ensure that appropriate changes are made to this ECP.

Employee Training

All employees who have occupational exposure to bloodborne pathogens receive training conducted by the Institutional Biological Safety Officer.

All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- A copy and explanation of the standard
- An explanation of our ECP and how to obtain a copy
- An explanation of methods to reorganize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident

- An explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- An explanation of the basis of PPE selection
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- 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 required by the standard and used at this facility
- An opportunity for interactive questions and answers with the person conducting the training session.

Facility training materials are made available to staff upon request to the Institutional Biological Safety Officer.

Recordkeeping

Training records are completed for each employee upon completion of training. These documents will be kept for at least three years by the Institutional Biological Safety Officer.

The training records include:

- The dates of the training sessions
- The contents or a summary of the training sessions
- The names and qualifications of persons conducting the trainings
- The names and job titles of all persons attending the training session

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the Institutional Biological Safety Officer.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records."

The Employee Health department is responsible for maintenance of the required medical records. These confidential records are kept at the Employee Health department offices for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to the Employee Health Department.

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by the Employee Health Department.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in the Sharps Injury Log. All incidences must include at least:

- The date of injury
- The type and brand of the device involved
- The department or work area where the incident occurred
- An explanation of how the incident occurred

The log is reviewed at least annually as part of the annual evaluation of the program and is maintained for at least five years following the end of the calendar year that they cover. If a copy is requested by anyone, it must have any personal identifiers removed from the report.