Temple University
Environmental Health and Radiation Safety

# EXPOSURE CONTROL PLAN

_____

Principal Investigator/Manager/Supervisor(s)

_____

Department

_____

Building

_____

Room/Lab #

_____

_____

Project Title(s)

_____

Date ECP Prepared

_____

Date ECP Reviewed

# Table of Contents

## Statement of Purpose

This exposure control plan has been prepared to minimize or eliminate employee exposure to bloodborne pathogens. This plan was developed in accordance with the ***OSHA "Occupational Exposure to Bloodborne Pathogens***; Final Rule" contained in 29 CFR Part 1910.1030.

## Universal/Standard Precautions

All employees will utilize universal precautions.

## Annual Review

Employees covered by the bloodborne pathogen standard receive an explanation of this ECP during their initial training and prior to working with any Bloodborne Pathogens (BBP) or Other Potentially Infectious Materials. It will also be reviewed during their annual refresher training. All employees can review this plan at any time during their work shift by contacting _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager). If requested, a copy of the ECP will be provided to the employee free of charge and within 15 days of the request.

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified task and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

## Exposure Determination

The Standard requires that each organization to assess whether or not employees are subject to occupational exposure to blood associated pathogenic microorganisms without regard to personal protective clothing and equipment.

The exposure determination is made by reviewing job classifications within the work environment, and listing exposures into 2 groups. The first group includes job classifications in which all of the employees have occupational exposure, such as occupational health nurses, phlebotomists, researchers who work with human blood and blood cells, emergency response personnel, etc. Where all employees have occupational exposure, it is not necessary to list specific work tasks. The second group includes those classifications in which some of the employees have occupational exposure. Specific tasks and procedures causing occupational

exposure must be listed.

An example would be in a laboratory where some of the workers might be assigned the task of handling blood or other potentially infectious materials while other workers would not.

## Job Classifications, Specific Tasks, and Procedures

Please list all employees and provide a brief description of their tasks/procedures on the chart below.

Example:

| Name | Job Title | Location | Task/Procedure |
|---|---|---|---|
| John Doe | Technician | PAH-B49 | Draws Human blood |
| Fred Krueger | Research Assistant | PAH B 44 | Isolates human DNA from lymphocytes using ficol hypaque gradient technique |
| Mary Smith | Post-Doc | PAH B-49 | Performs human DNA sequence analysis |

| Name | Job Title | Location | Task/Procedure |
|---|---|---|---|
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- Occupational Exposure: Reasonably anticipated skin, eye, mucous membrane, or parental contact (i.e. needle stick) with blood or other potentially infectious materials that may result from the performance of an employee's duties.

# Responsibilities

Supervisors are to ensure that the provisions of this plan are followed by all employees with occupational exposure. This includes providing a copy of this exposure control plan to employees, enforcing compliance with this plan, ensuring new employees are properly trained, ensuring all employees attend an annual training session, and performing follow-up procedures for all exposure incidents.

Employees are to perform tasks and procedures in a manner that minimizes or eliminates employee exposure and perform duties as established in this exposure control plan and as trained.

EHRS provides the OSHA-mandated bloodborne pathogen information and training sessions at least annually to each supervisor and employee with occupational exposure. Please visit the EHRS webpage at https://www.temple.edu/ehrs for training information.

# Methods of Compliance

## General

Universal Precautions are observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids are considered potentially infectious materials.

## Engineering and Work Practice Controls

Engineering and work practice controls are to be used to eliminate or minimize employee exposure for each task within the work area. Where occupational exposure remains after institution of these controls, personal protective equipment is used. Engineering controls are used where there is a reasonable likelihood of occupational exposure.

Please list engineering controls utilized such as sharps containers, biosafety cabinets, etc.:

Examples:
1. All viral transformation experiments are conducted in biological safety cabinet.
2. There is a sharps container in the cabinet for pipette tips and syringes.

3. All glass pipettes are placed in a pipette container that is filled with a quaternary ammonium disinfectant solution.
4. Lymphocyte isolation using Ficol–Hypaque mini columns is performed in biosafety cabinet to minimize lymphocyte exposure to contaminants in the air.

1. _____

2. _____

3. _____

4. _____

5. _____

Engineering controls are examined and maintained or replaced on a regular schedule by the supervisor and employee to ensure their effectiveness.

Please list the schedule for examining and maintaining these controls such as daily, once weekly, etc., and who is responsible for reviewing the effectiveness of these controls (supervisors, etc.).

Examples:
1. Mary Smith checks each biological waste container (solid, sharps, re-usable pipettes, etc.) in the morning to see if the waste log is complete and whether any of the waste containers are full, have leaked, etc.
2. Mary Smith checks the magnehelic gauge on the biosafety cabinet to see if the cabinet is working properly and turns off the UV light.
3. Mary Smith prepares a summary report once a week for the lab supervisor John Doe.

1. _____

2. _____

3. _____

The following minimum requirements are followed:

Hands are washed immediately or as soon as feasible after removal of gloves or other personal protective equipment.

Following contact with blood or other potentially infectious materials, hands and any other skin will be washed with soap and water. Hand washing must be conducted with soap and water for a minimum of 10 seconds. Care should be taken to wash to entire hand including between fingers. Mucous membranes are flushed with water.

Please list the locations of hand washing facilities:

1. _____

2. _____

When hand washing facilities are not available, the supervisor will provide antiseptic hand cleanser and paper towels or antiseptic towelettes. Water facilities shall be oriented toward the user. Hands are washed with soap and water as soon as feasible.

List the location and who is responsible for ensuring maintenance and accessibility of these alternatives.

Examples:
1. There is a sink at the end of each lab bench.
2. Adjacent to each exit door (inside the laboratory) is an eyewash station and an emergency shower. Facilities tests the eyewash showers annually and there is a tag on the shower pull chain on which the date of the test is recorded.
3. Fred Krueger tests each eyewash station, at least weekly, to ensure that the water flow is uninterrupted. He marks the date of the test on the tag.

1. _____

2. _____

3. _____

4. _____

Contaminated needles and other contaminated sharps are not to be bent, sheared or broken.

Recapping needles by hand is prohibited. Recapping and needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

List procedures where needle recapping is permitted and the mechanical device to be used, or if a one-handed technique will be used:

1. _____

2. _____

3. _____

Immediately or as soon as possible after use, contaminated sharps must be placed in puncture resistant, labeled, leak proof containers.

List where sharps containers are located as well as who has responsibility for removing them and how often they will be checked:

| Location of Sharps Containers | Lab Person responsible for checking | Frequency of check | Group Responsible for removing them from the lab. |
|---|---|---|---|
| | | | Housekeeping |
| | | | |
| | | | |

Eating (chewing gum, use of throat lozenges) drinking, smoking, applying facial cosmetics (including lip balm) and handling contact lenses are prohibited in all work areas. Prior to the consumption of any food after handling potentially infectious materials, employees will remove potentially contaminated PPE, wash hands, and exit the work area.

Food and drink are prohibited from lab or work areas, (i.e., refrigerators, freezers, shelves, cabinets, on counter tops or bench tops where blood or other potentially infectious materials are present.

All procedures involving blood or other potentially infectious materials are performed in a manner that minimizes splashing, spraying, spattering, and generation of droplets of these substances.

List methods used to minimize splashing, spraying, splattering and generation of droplets of blood or other potentially infectious materials (centrifuge covers, benchtop safety shields, etc.).

Examples:

1. All procedures which could generate aerosols or splashes are conducted in the biosafety cabinet.
2. When samples are centrifuged, the microfuge or clinical centrifuge is placed in the biosafety cabinet.
3. When refrigerated centrifuge is used, samples are placed in screw capped tubes (tubes are checked for leakage prior to start-up.)
4. Workers wear goggles when working with blood, blood cells or other materials of human origin.

1. _____

2. _____

3. _____

4. _____

5. _____

Mouth pipetting/suctioning is prohibited.

Specimens of blood or other potentially infectious materials are placed in a container which prevents leakage during collection, handling, processing, storage, transport or shipping. The container is closed prior to storing, transporting or shipping. The outside surface of the primary container is disinfected before removing from lab. Specimens are labeled when leaving the facility. The standard provides for an exemption to this requirement, provided that the facility utilizes universal precautions in the handling of all specimens and the containers are recognizable as containing specimens. The exemption applies only when specimens remain in the facility.

If an exemption is claimed, it must be stated here:

1. _____

If outside contamination of the primary container occurs then the primary container is placed within a secondary container which prevents leakage during handling, processing, storage, transport or shipping. If a specimen could puncture the primary container, the primary container is then placed within a secondary puncture-resistant container.

Specify how the use of secondary specimen containers will be carried out, which specimens, if any, could puncture a primary container, which containers can be used as secondary containers and where the secondary containers are located at the facility.

Examples:
1. Secondary containers are used whenever human samples are transported from one laboratory to another.
2. We use plastic (Tupperware) containers which have press sealed lids.
3. All contaminated materials which could puncture a primary waste container (trash liners, biowaste bags, etc. are placed in a puncture resistant cardboard (burn box) or plastic (re-useable) container.
4. Such containers are in each laboratory and in the Biowaste Storage Area.

1. _____

2. _____

3. _____

4. _____

5. _____

Equipment which may become contaminated with blood or other potentially infectious materials is examined by the employee prior to servicing or shipping and will be decontaminated as necessary, unless demonstrated that decontamination of the equipment or portions of such equipment is not feasible. A readily observable label with the Universal Biohazard symbol is attached to the equipment stating which portions remain contaminated. This information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions are taken.

Standard cleaning, disinfection and sterilization procedures currently recommended in a variety of Health Care settings are adequate to clean, disinfect or sterilize instruments, devices or other items contaminated with body fluids. Medical devices or instrument that requires disinfection or sterilization must be thoroughly cleaned before being exposed to the germicide and the manufacturer's instructions for the use of the germicide will be followed. Instruments or devices that are used on sterile tissue of any patient shall be sterilized or receive high level disinfection.

List any equipment which cannot be decontaminated prior to servicing or shipping:

1. _____

2. _____

3. _____

4. _____

This facility identifies the need for changes in engineering controls and work practices through:

List how changes are identified:

Examples:
1. Review of OSHA records
2. Employee interviews
3. Committee activities

1. _____

2. _____

3. _____

Describe the process how this lab evaluates new procedures and new products regularly:

Examples:
1. Literature reviewed
2. Supplier information
3. Products considered

1. _____

2. _____

3. _____

Both front–line workers and managements officials are involved in this process in the following manner:

- _____

_____ (insert Name of Supervisor/Principal

Investigator/Department Head or Manager) is responsible for ensuring that these recommendations are implemented.

The Manager must include non-managerial staff in their evaluation.

The use of a needle-less sharps or otherwise altered with built in feature or mechanism that effectively reduces the risk of an exposure incident must be used.

If the use of an engineered sharp device is not possible or warranted for a specific application, the PI, Manager, or Supervisor must:

1) Document which devices have been evaluated, the extent of the evaluation and identify which employee performed the evaluation.
2) Document the rationale for not utilizing an engineered sharps device. This rationale is only acceptable if it demonstrates the device is medically contraindicated for the human research subject, is unreliable in operation or is incompatible with other essential components of the research.

1. _____

2. _____

The Safer Sharps Device Evaluation Form may be used to assist you in your evaluation process.

## Personal Protective Equipment (PPE)

Personal protective equipment is provided by the supervisor, at no cost to the employee, when there is a chance of occupational exposure.

Appropriate personal protective equipment may consist of, but is not limited to, gloves, gowns, lab coats, face shields, masks, eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. PPE is considered appropriate if it does not permit blood or other potentially infectious material to pass through to the employee's work clothes, street clothes or undergarments, skin, eyes, or other mucous membranes under normal working conditions and for the duration of time that PPE shall be used. All personal protective equipment is to be readily accessible and in the appropriate sizes. It is the employee's responsibility, when there is occupational exposure, to use the appropriate personal protective equipment.

Please specify how protective clothing will be provided to employee's (who is responsible for

distribution, etc.) and list which procedures would require the protective clothing and type of protection required:

Examples:

1. Everyone who works in the laboratory must wear eye protection and a laboratory coat.
2. Latex or non-latex gloves are worn whenever blood or blood derived materials are handled.
3. Face shields are worn whenever there is a risk of splashes to the face or when large volumes of potentially hazardous fluids are handled.
4. Mary Smith is responsible for ordering replacement materials whenever the supplies are running low.
5. All visitors to the laboratory are provided with safety goggles prior to entry. If they are to work in the laboratory, they are provided a disposable lab coat and gloves.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

All personnel wearing PPE will wash their hands immediately or as soon as feasible whenever PPE or gloves are removed.

Personal protective garments that are contaminated are to be removed immediately, or as soon as feasible, and prior to leaving the work area. When removed, garments are to be bagged and placed in the appropriately designated containers for decontamination (autoclaving) and/or disposal.

Please list procedures and where employees are expected to place the personal protective equipment prior to leaving the work area:

Examples:
1. When leaving the laboratory, workers remove their gloves and wash their hands with soap and water.
2. Lab coats are hung on the coat rack and goggles are placed on the shelf beside the coat rack.
3. In the event that the lab coat is visibly contaminated, the coat is placed in the laundry bin located next to the coat rack before the gloves are removed.
4. After removal of gloves, hands are then washed with soap and water.

1. _____

2. _____

3. _____

4. _____

Gloves are worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures and when handling or touching contaminated items or surfaces.

Hypoallergenic gloves, glove liners, and similar alternatives are available to employees who have documented allergy to the gloves that are usually supplied to their work area.

Please specify the location and/or person who will be responsible for glove distribution:

Examples:
1. Boxes of gloves (small, medium and large) are kept on each lab bench.
2. Mary Smith checks these boxes each morning and reorders supplies when low.

1. _____

2. _____

3. _____

List procedures where gloves will be used:

Examples:
1. Gloves are worn when drawing blood, preparing gradient tubes, adding blood to the gradients and operating the separation columns.
2. Gloves are worn during the isolation and purification of the DNA samples and whenever the DNA is handled during the sequencing run.

1. _____

2. _____

3. _____

Disposable gloves are being 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 gloves are not washed or decontaminated for re-use. Utility gloves (i.e., rubber household gloves) for housekeeping chores involving potential blood contact and for instrument cleaning and decontamination procedures can be used. 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 or 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, are worn whenever splashes, spray, spatter or droplets of blood or other potentially infectious materials 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 are worn in occupational exposure situations.

## Housekeeping

The work site is maintained in a clean and sanitary condition according to a written schedule for cleaning and method(s) of decontamination. The schedule is based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

Please provide a written schedule:

> Examples:
> 1. Once a day all waste is autoclaved or placed in burn boxes, prior to disposal.
> 2. Lab benches are cleaned by the lab staff prior to starting their work and upon completion of their work at the end of the day.
> 3. Once a month the laboratory floors are washed.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

All equipment and working surfaces are to be cleaned and decontaminated after contact with

blood or other potentially infectious materials. Contaminated work surfaces are to be decontaminated with an appropriate disinfectant after completion of procedures, immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials and at the end of the workday.

Protective coverings (plastic wrap, aluminum foil, bench paper, etc.) used to cover equipment and surfaces are to be removed and replaced as soon as feasible when they become contaminated. Provide information about any coverings used.

All reusable bins, pails, cans, and similar receptacles which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials are to be inspected and decontaminated on a regular basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

Please list frequency of inspection and decontamination and who performs these tasks:

Examples:
1. The laboratory is inspected weekly by John Doe.
2. Lab Manager inspects the lab at least monthly
3. EHRS inspects the lab at least annually.
4. The Laboratory would be decontaminated following a major spill.

1. _____

2. _____

3. _____

4. _____

5. _____

Broken glassware will not be picked up directly with the hands. Mechanical means, such as tongs, forceps, or a dustpan will be utilized.

Please describe procedures and identify where to find spill clean-up materials, (tongs, etc.) for picking up broken contaminated glassware.

Examples:

1. All workers in the lab have been advised that they must use tongs or an autoclavable dustpan and brush to pick up broken glass.
2. Tongs are located near the sink and the dustpan and brush are located in closet.
3. In the event that the area around the broken glass is contaminated, then the area is to be flooded with the 1/20 dilution of bleach and allowed to stand for 10-15 minutes prior to clean up.

1. _____

2. _____

3. _____

4. _____

5. _____

Contaminated sharps are discarded immediately or as soon as feasible in covered, puncture-resistant, leak proof, labeled containers (extras are located here: _____). These containers are accessible to personnel and located as close as is feasible to the immediate area where sharps are used. Containers will not be allowed to overfill. Containers are replaced when they are 2/3 full.

Regulated waste (Medical and Sharps) is to be placed in covered leak proof, labeled containers that are closed prior to removal. If outside contamination of the container occurs, it is placed in a second container which is also leakproof, labeled and closed prior to removal.

Specify locations of infectious waste containers:

1. _____

2. _____

3. _____

4. _____

When moving containers of contaminated sharps from the area of use, the containers will be closed prior to removal and placed in a secondary container if leakage is possible. The secondary container will be covered, labeled and constructed to contain all contents and prevent leakage during handling, storage, transport or shipping.

Disposal of all regulated waste is in accordance with all Federal, State and Local regulations. Please visit the EHRS website section on Waste Management for additional guidance on the proper disposal of regulated waste. Please consult your Departments for additional site-specific policies on the proper disposal of regulated waste.

List the following: facility area, surface, or equipment to clean and/or decontaminate procedure for cleaning and/or decontaminating and the frequency the cleaning agent and/or disinfectant is to be used.

> Examples:
> 1. All benches and work surfaces are washed down before and after experimental activity with the quaternary ammonium solution.
> 2. Centrifuges are decontaminated (wiped with a disinfectant periodically (about once a month).

1. _____

2. _____

3. _____

Please describe procedures for disposal of potentially infectious materials:

Examples:
1. All potentially infectious wastes are disposed of in accordance with Temple and Department specific policies.

1. _____

2. _____

3. _____

Contaminated laundry (i.e., lab coats, bedding and linens) is to be bagged or placed in a leak proof, labeled, container at the location where it was used and will not be sorted or rinsed in the location of use. Employees who have contact with contaminated laundry will wear gloves and other appropriate PPE.

Please specify where laundry will be cleaned and note if it will be sent off-site.

Examples:
1. Laboratory coats that are to be laundered are placed in a bin located next to the exit door from laboratory.
2. Coats are picked up once a month and laundered by contract agency.

1. _____

2. _____

3. _____

Contaminated laundry shipped off-site to another facility is placed in bags or containers labeled with the Universal Biohazard symbol.

## Labels

The following labeling methods are used in this area:

| Equipment to be labeled | Label Type |
|---|---|
| Example: Specimens | The red bag must have a biohazard symbol. The red bag must have either the markings of ASTM D 1709 for impact resistance and ASTM D 1922 for tear resistance or the certification letter from manufacturer for the standards. |

List below:

| Equipment to be labeled | Label Type |
|---|---|
| | |
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| | |

_____ (insert name of Supervisor/Principal Investigator/Department Head or Manager) is responsible for ensuring that warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into this facility. Employees are to notify _____ (insert name of Supervisor/Principal Investigator/Department Head or Manager) if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

## HIV and HBV Research Laboratories (omit if not relevant to your work)

These are the minimum requirements that apply in addition to the other requirements of the standard. These additional requirements apply to research laboratories and production facilities engaged in the culture, production, concentration, experimentation and manipulation of HIV and HBV. These requirements do not apply to clinical and diagnostic labs.

All regulated waste is incinerated or autoclaved.

Laboratory doors are kept closed when work involving HIV or HBV is in progress.

Contaminated materials that are to be decontaminated at a site away from the work area are placed in a durable, leak proof, labeled container that is closed before removal from the work area.

Access to the work area is limited to authorized persons. Written policies and procedures are established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements and who comply with all entry and exit procedures are allowed to enter the work areas and animal rooms.

Please specify procedures:

1. _____

2. _____

3. _____

4. _____

5. _____

All access doors to the work area or containment module are posted with a hazard warning sign which includes the Universal Biohazard symbol.

No work will be conducted on the open bench. All activities involving other potentially infectious materials are conducted in a biological safety cabinet or other physical-containment device within the containment module.

Lab coats, gowns, uniforms, or other appropriate protective clothing are worn in the work area and animal rooms. Protective clothing is not to be worn outside of the work area and will be decontaminated before being laundered.

Gloves are worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

Vacuum lines are protected with liquid disinfectant traps and HEPA filters which are checked routinely and maintained or replaced as necessary.

Hypodermic needles and syringes are only used for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe needle units are used for the injection or aspiration of other potentially infectious materials. Extreme caution is used when handling needles and syringes. Needles are not to be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe are promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

All spills are immediately contained and cleaned up by properly trained personnel equipped to work with potentially infectious materials.

Please outline spill containment and clean-up procedures and specify persons properly trained and equipped to carry-out clean-up:

1. _____

2. _____

3. _____

4. _____

5. _____

A spill or accident that results in an exposure incident is immediately reported to the laboratory director or other responsible person. Anyone who has a potential exposure must report to Employee Health/ED. In addition, EHRS must be notified and an incident report must be completed and submitted by the PI.

Please identify person(s) to be notified:

1. _____

2. _____

3. _____

4. _____

5. _____

Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, are used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills or aerosols.

Biological safety cabinets are certified when installed, whenever they are moved, and at least annually.

Please specify frequency of certification:

1. _____

2. _____

3. _____

Attach one copy of the biosafety manual which was prepared for this facility.

Please list location of hand wash sink and eye wash facility and specify whether sink is floor, elbow or automatically operated:

1. _____

2. _____

3. _____

Please specify mechanism and frequency by which proper direction of facility airflow is verified:

1. _____

2. _____

3. _____

Please describe procedure(s) to advise personnel on potential hazards and means of assessing compliance with instructions on practices and procedures:

1. _____

2. _____

3. _____

## Hepatitis B Vaccination & Post-Exposure Evaluation/Follow-Up

Occupational Health makes available the Hepatitis B Vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

All medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are made available

at no cost to the employee.

### Main Campus

1. Employee Health Services, 1700 North Broad Street, fourth floor, M-F 8:30 am - 5:00 pm. Phone: 215-204-2679.

2. Student Health Services, 1700 North Broad Street, fourth floor, M-F 8:00 am - 5:00 pm, Phone: 215-204-7500.

3. After hours: Emergency Department at Temple University Hospital, 3401 N. Broad Street, Philadelphia, PA 19140.

### Health Science Center

1. Occupational Health Department at Temple Hospital, basement of Rock pavilion M-F, 8:00 am - 5:00 pm, Phone: 215-707-4455

2. Student Health Services, Student Faculty Center, Lower Basement, Room 43, M-F, 8:30 am - 4:30 pm, Phone: 215-707-4088.

3. After hours: Emergency Department at Temple University Hospital, 3401 N. Broad Street, Philadelphia, PA 19140.

### Hepatitis B Vaccination

Hepatitis B vaccination is made available to the employee after his or her attendance at a bloodborne pathogen training and information session, conducted by EHRS. The vaccine is made available to all employees with occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons, or the individual declines. The vaccine will be provided according to current recommendations of the U.S. Public Health Service. There is no current recommendation for booster doses. Pre-screening before receiving the hepatitis B vaccination is not routinely performed at Temple.

All employees who decline to accept hepatitis B vaccination offered by Temple will be required to sign a Hepatitis B Vaccine Declination Form. If an employee decides to accept the vaccination at a later date, Temple University will make available hepatitis B vaccination at that time. Declination forms are kept on file with Mr. Thomas Johnston, Director of HR/Benefits management Temple Administrative Services Building (TASB), First floor, 2450 West Hunting Park Avenue, Philadelphia. Fax: 215-926-2274 or 215-926-2288,

thomas.johnston@temple.edu. To receive the hepatitis B vaccine and vaccination series, contact Employee Health Services.

# *HEPATITIS B VACCINE DECLINATION FORM*

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Name:

_____

First MI Last

TU ID Number: _____-____-_____

Signature: _____

Date: _____

This record must send to Mr. Thomas Johnston, Director of HR/Benefits management, Temple Administrative Services Building (TASB), First floor, 2450 West Hunting Park Avenue, Philadelphia. Fax: 215-926-2274 or 215-926-2288, thomas.johnston@temple.edu

## Post-Exposure Evaluation and Follow-Up

Occupational Health will initiate a confidential medical evaluation and follow-up to an employee, following a report of an exposure incident. Employees with an exposure incident will report to the Occupational Health.

### Main Campus

1. Employee Health Services, 1700 North Broad Street, fourth floor, M-F 8:30 am - 5:00 pm. Phone: 215-204-2679.

2. Student Health Services, 1700 North Broad Street, fourth floor, M-F 8:00 am - 5:00 pm. Phone: 215-204-7500.

3. After hours: Emergency Department at Temple Hospital

### Health Science Center

1. Occupational Health Department at Temple Hospital, basement of Rock pavilion M-F, 8:00 AM to 5:00 PM Tel: 215-707-4455

2. After hours: Emergency Department at Temple Hospital

For all exposure incidents, the route(s) of exposure and the circumstances under which the exposure incident occurred (to include details of the use or non-use of engineering controls, work practice controls or PPE) are documented. The source individual is identified and documented, unless identification is not feasible or prohibited by state or local law. After consent is obtained, the source individual's blood is tested for HBV and HIV status. If the exposed employee gives consent, a baseline blood sample is collected immediately following the incident with subsequent periodic samples taken at a later date. Results of the source individual's testing will be made available to the exposed employee and the employee will be informed of laws/regulations regarding the privacy rights of the source individual. The results of the source individual's blood test and employee's blood test are confidential and will be known only to the exposure Nurse/Physician and the exposed employee. Counseling and other features of post exposure evaluation will be offered whether or not the employee elects to have baseline HIV/HBV serological testing.

## Administration of Post-Exposure Evaluation and Follow-Up

_____ (insert name of Supervisor/

Principal Investigator/Department Head or Manager) ensures that the health care professionals) responsible for employee's hepatitis vaccination and post exposure evaluation and follow up are given a copy of the OSHA's bloodborne pathogen standard.

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) 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 individuals blood test
- Relevant medical records, including vaccination status

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) ensures that the employee is provided 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

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) ensures that an incident report is provided and a review of the circumstances of all exposure incidents is conducted to determine:

- Engineering controls in use at the time
- Work practices followed
- A description of the device being used (including type and brand)
- Protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc...)
- Location of the incident (lab, etc...)
- Procedures being performed when the incident occurred
- Employees training

Occupational Health will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log.

If revision of this ECP is necessary, _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) will ensure that appropriate changes are made (Changes may include am evaluation of safer devices, adding employees to the exposure determination list, etc.)

# Communication of Hazards to Employees

## Information and Training

Supervisors are to ensure that employees with occupational exposure participate in a training program, provided at no cost to the employee by EHRS. Employees are to complete training at the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter.

Elements of the bloodborne pathogen training program are listed below:

1) a copy and explanation of the OSHA bloodborne pathogen standard
2) an explanation of the ECP and how to obtain a copy
3) an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
4) an explanation of the use and limitations of engineering controls, work practices, and PPE
5) an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
6) an explanation of the basis for PPE selection
7) 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
8) information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
9) 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
10) information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
11) an explanation of the signs and labels and/or color coding required by the standard and used at this facility
12) an opportunity for interactive questions and answers with the person conducting the training session.
13) training materials for this facility are available in person by register the training with EHRS or online at https://campusoperations.temple.edu/ehrs/training.

Training aids utilized by EHRS include videotapes, written materials and slides. Additional training requirements apply to employees in HIV and HBV laboratories and production facilities. The supervisor assures that employees demonstrate proficiency in standard microbiological practices and operations specific to the facility before being allowed to work with HIV or HBV and have prior experience in the handling of human pathogens or tissue culture. The supervisor provides appropriate training and assures that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

If you would like to schedule a training session, please contact EHRS at 215-707-2520.

## Recordkeeping

### Training Records

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) is responsible for ensuring that all training records and medical records required by the standard are performed and that all appropriate employee health and OSHA records are maintained.

Training records are kept by EHRS (conducted by EHRS) for at least 3 years from the date on which the training occurred. Function specific training is maintained by _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager)

All training sessions are documented in writing, with records kept by EHRS. The training record includes:

Dates of training sessions
Contents of training sessions
Names/qualifications of persons conducting training
Names/job titles of all persons attending training sessions

All training records conducted by EHRS are available for review upon request by an employee or employees authorized representative within 15 working days.

### Medical Records

Confidential medical records for employees with occupational exposure are kept by the Occupational Health for the duration of employment plus 30 years.

Medical records include:

- Employee's name and social security number
- Employee's hepatitis B vaccination status including vaccination dates and any medical records related to the employee's ability to receive vaccinations
- Results of examinations, medical testing, post-exposure evaluation and follow-up Procedures
- Health care professional's written opinion
- A copy of the information provided to the health care professional

Occupational Health will ensure that employee medical records are kept confidential and are not disclosed or reported without the employee's written consent to any person within or outside the workplace except as required by this Standard and by law. Medical records are retained and coordinated by Occupational Health. Employee health records are maintained for the duration of employment plus 30 years.

## Safety Device Plan

1. Identifying and Selecting Appropriate and Currently Available Engineering Control Devices

Our policy is to select appropriate and effective engineering controls to prevent or minimize exposure incidents. Engineering controls means controls (e.g., sharps disposal containers, needleless systems and sharps with engineered sharps injury protection) that isolate or remove the bloodborne pathogens hazard from the workplace.

2. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) first evaluate products that eliminate the use of sharps (e.g., needleless systems), if available. If these devices are not selected, we then evaluate devices equipped with engineered sharps injury protection (ESIP). ESIP means either (1) a physical attribute built into a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, which effectively reduces the risk of an exposure incident by a mechanism such as barrier creation, blunting, encapsulation, withdrawal, or other effective mechanisms; or (2) a physical attribute built into any other type of needle device or into a non-needle sharp, which effectively reduces the risk of an exposure incident.

3. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) establish and maintain procedures for identifying and selecting appropriate and effective engineering controls, which may include the following steps:

    1) Set up a Process
    2) Define Needs
    3) Gather Information
    4) Test and Select Products
    5) Use New Products
    6) Conduct Follow-up

4. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) modify the steps outlined above to fit the requirements as follows:

1) Set up a Process

   a. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) use a systematic process to identify and select appropriate and effective engineering controls. The process may include committees, subcommittees, working groups, a lead person, or other responsible employees. The same groups or individuals are responsible for all the steps in the process of identifying and selecting engineering controls. In our organization the setup is: _____

   b. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) actively involve managers and employees from departments, units, or floors where engineering controls are (or will be) used. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) choose individuals with expertise and experience in particular professions or specialties to evaluate new products that will be used in their area(s) of practice. Individuals involved in our process include: staff, nurse manager, and medical assistant.

2) Define Needs

   a. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) address each potential exposure of the tasks and procedures performed in various departments, units, floors, or dental operatories. We solicit input from frontline employees, supervisors, and managers. We also collect occupational exposure and injury data. We then identify our needs and establish our priorities on the basis of an analysis of all the available information.

   b. Priority Potential Exposures to Be Addressed Work Area

      i. Needle stick- safe needle use is in place.

3) Gather Information

   a. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) gather information on currently available engineering controls that are designed to reduce occupational exposure to blood or OPIM. Because new technology is continually entering the marketplace, we also periodically search for information on new products.

4) Test and Select Products

Each potential exposure is addressed by applying screening criteria to the engineering controls under consideration. When available, multiple devices are screened for each potential exposure being addressed.

This helps ensure that more than one product is selected for testing for a given task or procedure. Screening criteria are applied to products in order to eliminate those with readily identifiable problems (e.g., ineffective devices, safety issues, visual obstructions). Only devices meeting an acceptable number of screening criteria are then tested in actual patient or product trials. For each exposure being addressed, _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) document the new products that meet an acceptable number of screening criteria and will be included in the testing.

a. Testing Products

Testing can help evaluate whether products are actually effective at reducing or eliminating workplace exposure incidents. Frontline employees who perform the tasks and procedures associated with the exposures being addressed are involved in the testing. If available, multiple products from a single category of devices are tested for each potential exposure being addressed. The testing of new products is suspended immediately if there is any evidence that a device is causing injuries to employees or patients.

To help ensure that devices are handled safely and evaluations are objective, _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) provide training on the safe and proper use of devices before testing begins. This training is given to the groups or individuals responsible for product selection, all participants involved in the testing, and their supervisors. Participants in the testing are also given the opportunity to practice using the new devices. These practice sessions simulate, as closely as possible, the tasks and procedures involved under “real-life” conditions. Representatives of manufacturers and distributors are requested to demonstrate the intended use of their products, answer questions, and train employees in the safe operation of each device.

b. Tools

Checklists, evaluation forms, or other types of standardized “tools” are used in the testing of new products. The tools are tailored to the specific category of product under consideration. To provide a standard basis for comparison among products,

we use the same checklist or evaluation form when testing multiple products within a given type or category of device.

c. Protocols

_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) may use protocols in our testing process to make the evaluation of new products more systematic.
Protocols also help us document the details of each item involved in our testing process.

d. Selecting Products

After the testing is completed, all the information, including checklists and evaluation forms, is reviewed. Input from frontline employees involved in the testing is documented and considered when it is time to select products for purchase. Based on the analysis of all the available information, consensual decisions are made regarding whether to purchase particular products. If two or more products are found to be satisfactory in a given category, we consider purchasing them. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) document how devices ranked and which products we have decided to purchase.
_____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) provide feedback to employees on the ranking and selection of products.

5) Use New Products

a. _____ (insert name of Supervisor/ Principal Investigator/Department Head or Manager) may introduce new products on a limited basis in a pilot implementation or trial phase. During this trial period, issues associated with the day-to-day use of the new products may arise. Employees may need time to develop new skills, establish new work practices, and break old habits. Employees are strongly encouraged to report any problems to their supervisors during the trial period. If problems appear to be serious or widespread, they are reported to the decision makers. Problems with new products are addressed as they arise and are resolved before the new product is used throughout our organization.

b. All staff members (and supervisors) using the new products or devices are thoroughly trained. This training is a mix of the knowledge and skills needed to

work safely. For each new device, representatives of manufacturers and distributors are requested to:

i. Demonstrate its proper use and application
ii. Answer questions
iii. Provide training on its safe operation
iv. Provide follow-up

c. Training also includes practice sessions to simulate the tasks and procedures that individuals will be performing with the new devices. Multiple devices may have been selected for a given task or procedure. If this is the case, individuals are trained on all the selected devices.

6) Conduct Follow-up

a. Follow-up helps ensure that new products are effective and appropriate and are replaced over time by newer, more effective technology. As newer products become available, they are screened, tested, and selected according to the process described previously.

b. Our follow-up process systematically reevaluates devices and incorporates the input of frontline employees who have been using the products. Decisions on the appropriateness and effectiveness of new devices are not made until employees have had enough time to adjust to using the products.

c. Follow-up evaluations of products and the associated work practices are conducted six months after the implementation and quarterly, semiannually, or annually thereafter. Findings are used to improve product selection and training.

Staff members receive periodic feedback on how new products are working and what other products have become available. Follow-up training is provided if problems are discovered with work practices or currently used devices. If newer devices are selected to replace those currently being used, all individuals (and their supervisors) using the newer devices are thoroughly trained.