BLOODBORNE PATHOGENS
EXPOSURE CONTROL PLAN

Adapted from the Employer Guide and Model Exposure Control Plan, Bloodborne Pathogens Standard 29 CFR Part 1910.1030 by the New Jersey Department of Health Public Employees Occupational Safety and Health Program

Revised January, 2015
IN CASE OF EMERGENCY

CMSRU:

Emergency: dial 9-1-1 or report to the closest Emergency Room.
ALL needlesticks/bloodborne pathogen exposures report to the closest Emergency Room.
Faculty, Staff and House Staff: Non-emergency: initiate paperwork with supervisor and report to the WC provider, WorkNet (300 South Broadway #101, Camden; 856-342-2990)
Students: initiate paperwork with supervisor and report to the WC provider, WorkNet (300 South Broadway #101, Camden; 856-342-2990)

Glassboro:

Emergency: dial 9-1-1 or report to the closest Emergency Room.
ALL needlesticks/bloodborne pathogen exposures report to the closest Emergency Room.
Faculty and Staff: Non-emergency: Report to the Wellness Center, Winans Hall (201 Mullica Hill Road, Glassboro; 856-256-4333) to initiate paperwork with supervisor and report to the WC provider, WorkNet (601 North Main Street, Glassboro; 856-881-5800)
Students: Report to the Wellness Center, Winans Hall (201 Mullica Hill Road, Glassboro; 856-256-4333).

Stratford:

Emergency: dial 9-1-1 or report to the closest Emergency Room.
Faculty, Staff and House Staff: ALL needlestick/bloodborne pathogens exposures report to the closest Emergency Room. Non-emergency: initiate paperwork with Human Resources who will direct you to Rowan SOM’s WC provider, WorkNet (37 South White Horse Pike, Stratford; 856-435-2680)
Students: All needlestick/bloodborne pathogen exposures contact Garden State Infectious Disease (709 Haddonfield-Berlin Road, Voorhees; 856-566-3190) immediately. Non-emergency: Report to Family Medicine, 2nd Floor University Doctor’s Pavilion for post exposure evaluation. This facility is open Monday through Friday from 8:00 AM to 5:00 PM. If WorkNet is not available or if exposure occurs after hours or on the weekend, report to the closest Emergency Room.
BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

This Exposure Control Plan is for the following Principal Investigator/Clinician/Area Supervisor

Last Name:  
First Name:  
Middle Initial
School:  
Department:  
Section/Division:  
Campus:  
Lab/Clinic Location[s] (Bldg./Room #):  

ALL Laboratory/Clinical Personnel:

By signing below, you warrant the following:

1. That you have read and understand this EXPOSURE CONTROL PLAN,
2. That you are aware of the hazards present in the work area, and
3. That you are aware of and in compliance with the requirements of the PEOSH Bloodborne Pathogens Standard.

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APPENDICES

APPENDIX A
Occupational Safety and Health Administration (OSHA) Standard
29 CFR 1910.1030 - Occupational Exposure to Bloodborne Pathogens

APPENDIX B
Biosafety Level 2 Practices and Procedures as outlined in the current edition of the Biosafety in Microbiological and Biomedical Laboratories (BMBL)

APPENDIX C
Rowan University’s Incident Report Form

APPENDIX D
Cleaning Schedule Template

APPENDIX E
Hepatitis B Vaccine safety, benefits, efficacy, methods of transmission and availability information

APPENDIX F
Hepatitis B Declination Waiver

APPENDIX G
Documentation of the use of non-sharps template
Introduction

Rowan University is committed to providing a safe and healthy work environment for our employees, students and visitors. In pursuit of this goal, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens. This ECP is in accordance with Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.1030 - Occupational Exposure to Bloodborne Pathogens - as adopted by the New Jersey Public Employees Occupational Safety and Health Act. A copy of the Occupational Exposure to Bloodborne Pathogens Standard can be found in APPENDIX A.

The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees, students, and visitors.

The Exposure Control Plan shall contain at least the following elements:

- An exposure determination
- The procedure for the evaluation of circumstances surrounding exposure incidents
- The schedule and method of implementation for:
  - Method of Compliance
  - Hepatitis B Vaccination
  - Post Exposure Evaluation and Follow-Up
  - Training
  - Communication of Hazards to Employees, and
  - Recordkeeping

In order to make this plan compliant, the blanks that appear throughout this document must be filled in with specific information. It is the responsibility of the Principal Investigator or Area Supervisor to provide all requested information.

It is important for the Principal Investigator or Area Supervisor to update their Exposure Control Plan under the following circumstances: (1) annually, (2) when new or modified tasks or procedures are implemented that have potential for occupational exposure; (3) when employees’ jobs are revised such that a new potential for occupational exposure may exist; and (4) when new positions are established that may involve exposure to bloodborne pathogens.

The overall content of this Exposure Control Plan will be reviewed by EHS annually and updated to reflect new and modified tasks, procedures, and engineering controls that affect occupational exposure.

Effective Dates

The Bloodborne Pathogens Standard was published in the New Jersey Register on July 6, 1993. The standard became operative on October 4, 1993. The dates for completing the different parts of the Standard were:
Plan Administration

Rowan University is an employer with various groups of employees, staff and students who have a reasonably anticipated risk of exposure to human blood and other potentially infectious materials while performing their required duties. As required, Rowan University must develop an Exposure Control Plan in accordance with Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.1030 - Occupational Exposure to Bloodborne Pathogens - as adopted by the New Jersey Public Employees Occupational Safety and Health Act. This plan is an administrative document that outlines how this occupational exposure risk will be controlled through the use of administrative controls, engineering controls, work practice controls, and personal protective equipment.

This Exposure Control Plan has been prepared by the Office of Environmental Health and Safety in order to outline the institutional exposure control procedures that will be followed by all affected Rowan University clinics, departments, and laboratories. Due to the diversity of job tasks with potential bloodborne pathogens exposure, it is recognized that information related to task-specific and site-specific procedures will need to be prepared and maintained by individual clinics, departments, and principal investigators/area supervisors in order to fully address the regulatory requirements outlined in the Occupational Exposure to Bloodborne Pathogens Standard.

The Office of Environmental Health and Safety, in accordance with local, state, and federal rules and regulations, will perform the following:

1. reviews the Bloodborne Pathogen Standard (including universal precautions, engineering controls, work practice controls and personal protective equipment) on an annual basis or whenever necessary to reflect new and modified tasks, procedures, and engineering controls that affect occupational exposure.
2. will implement this plan which addresses all the provisions of the Occupational Safety and Health Administrations (OSHA) Occupational Exposure to Bloodborne Pathogens...
Standard (29 CFR 1910.1030), as adopted by the New Jersey Public Employees Occupational Safety and Health Act. Implementation of this plan may include, but not be limited to the following:

a. notification of the ECP and updates through the Rowan University’s “Rowan Daily Mail”, “EXTRA EDITION Rowan Daily Mail”, and other forms of notification Rowan University used to disseminate information to its employees, staff, and students.

b. Email of the ECP and updates to clinics, departments, and/or principal investigators/area supervisors; with instructions on how to complete the ECP.

c. Site visits to discuss questions the clinics, departments, and/or principal investigators/area supervisors may have on the ECP.

3. will periodically inspect clinics, departments, principal investigators/area supervisors that are working with or have the potential to come in contact with human blood or other potentially infectious materials to assure that regulatory compliance needs are met and to identify areas where assistance is needed.

4. will be available to assist departments, clinics, and/or laboratories with completing their ECP and with complying with the Occupational Exposure to Bloodborne Pathogens Standard

5. will make the ECP available on the EHS website (http://www.rowan.edu/adminfinance/facilities/ehs/contact/staff.php) or in hard copy upon request. EHS shall make the ECP available to Regulatory Inspectors upon request for examination and copying. The Exposure Control Plan must also be readily available to all employees, staff and students through their supervisor.

Initial and annual update Occupational Exposure to Bloodborne Pathogens training is required and provided through the online Collaborative Institutional Training Initiative (CITI) Training Program. The link to register and obtain training is: www.citiprogram.org.

Either the names or job titles of individuals responsible for each of the areas listed below should be inserted in the spaces. If practical, the responsibilities for the complete program may also be held by one individual.

- **(Principal Investigator/Area Supervisor and/or designee – name[s]):** is responsible for implementation and completion of the ECP.

- **(Principal Investigator/Area Supervisor and/or designee – name[s]):** will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures.

- 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 this ECP.

- **(Principal Investigator/Area Supervisor and/or designee – name[s]):** will provide and maintain all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard.
• **(Principal Investigator/Area Supervisor and/or designee – name[s]):**
  will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.

• **The Dean of Research, the Department Chair, or the Principal Investigator/Area Supervisor** will be responsible for ensuring that all medical actions required by the standard are performed and that appropriate employee health and PEOSH records are maintained.

**Bloodborne Pathogens Exposure Control Plan**

**Definitions**

**Blood** – human blood, human blood components and products made from human blood. Human blood components include plasma, platelets and serosanguinous fluids (e.g., wound exudates).

**Bloodborne pathogens** – any pathogenic microorganisms that may be present in human blood and can cause human disease. These pathogens include but are not limited to HIV and HBV. Other bloodborne pathogens include agents of hepatitis C, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever, Creutzfeldt-Jakob disease, Human T-lymphotrophic Virus type I and viral hemorrhagic fever.

**Clinical Laboratory** - a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

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

**Contaminated Laundry** - laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

**Contaminated Sharps** - any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

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

**Employee** – any permanent or temporary employee, graduate or undergraduate student that receives a University paycheck and could potentially be exposed to bloodborne pathogens in the course of their work.

**Engineering controls** – controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.
**Exposure incident** – a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties. Non-intact skin includes skin with dermatitis, hangnails, abrasions, chafing, etc.

**Hand washing facilities** – a facility providing potable water, soap and single use towels or hot air drying machines.

**HBV** – Hepatitis B virus

**HIV** – Human Immunodeficiency Virus

**Licensed Healthcare professional** - a person whose legally permitted scope of practice allows him or her to independently perform healthcare.

**Needleless Systems** – a device that does not use needles for (1) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) the administration of medication or fluids; or (3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

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

**Other potentially infectious materials (OPIM)** – (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

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

**Personal protective equipment** – specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts) not intended to function as protection against a hazard are not considered to be personal protective equipment.

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

Research Laboratory – a laboratory producing or using research laboratory-scale amounts of HIV or HBV. Research Laboratories may produce high concentrations of HIV or HBV, but not in the volume found in the production facilities.

Sharp with Engineered Sharps Injury Protection – a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

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

Standard precautions (formerly universal precautions) – an approach to infection control in which all human blood and human body fluids, secretions and excretions are treated as if they are infected with HIV, HBV and other bloodborne pathogens. Standard Precautions dictates the use of gloves and appropriate barrier protection when contact with blood and body secretions is anticipated. These precautions apply to the care of all patients, regardless of their diagnosis or presumed infection status.

Sterilize – the use of physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions – an approach to infection control whereby all human blood and certain body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

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

Materials Covered Under This Plan

Bloodborne Pathogens are defined as pathogenic micro-organisms that are present in human blood and can infect and cause disease in humans. These pathogens include, but are not limited to, Hepatitis B virus (HBV), Hepatitis C virus (HCV), and Human Immunodeficiency Virus (HIV).

The following materials have been implicated in the occupational transmission of bloodborne pathogens and are covered under this Plan:

- Any unfixed tissue or organ (other than intact skin) from a human (living or dead);
- HIV-containing cells or tissue cultures, organ cultures, and HIV, HBV or HCV containing cultures medium or other solutions; and
- Blood, organs, or other tissue from experimental animals infected with HIV, HBV, or HCV
- Other Potentially Infectious Materials (OPIM), including the following human body fluids:

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<td>amniotic fluid</td>
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<td>saliva in dental procedures</td>
<td>any body fluid visibly contaminated with blood</td>
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- Human Cell Lines: Biosafety Level and Bloodborne Pathogen Program applicability

Human cell lines and human cell strains from primary explants are handled at Biosafety Level 2 (BSL2). Human cell lines obtained from commercial sources, even when they have been screened for bloodborne pathogens, may become contaminated with adventitious agents while they are in use in the laboratory. Cell lines obtained from non-commercial sources (colleagues passing along an interesting clinical specimen) undergo even less screening. Therefore, all cell cultures should be handled at BSL2 and contaminated materials must be autoclaved before disposal in Regulated Medical Waste containers. Conducting operations at BSL 2 will also reduce the chances of the culture contamination.

BSL2 practices and procedures are available in the most current edition of the Biosafety in Microbiological and Biomedical Laboratories (BMBL) Section IV – Laboratory Biosafety Level Criteria (http://www.cdc.gov/biosafety/publications/bmbl5/). A copy of Biosafety Level 2 practices and procedures can be found in APPENDIX B.

Laboratories using primary explants and human cell strains (non-transformed cells) and cell lines propagated from primary explants must also comply with the provisions of the Bloodborne Pathogens Standard unless the strains have been characterized* to be free of bloodborne pathogens.

Materials Excluded From the Bloodborne Pathogen Program

Established human cell lines which are characterized* to be free of contamination are not covered by the Bloodborne Pathogens Standard as long as documentation that such cell lines do not contain bloodborne pathogens is available and is kept in the laboratory.
For example, in order to handle human HeLa cells, without having to comply with the requirements of the bloodborne pathogens standard, human HeLa cells should be documented to be pure HeLa cells and shown to be free of bloodborne pathogens by testing.

*Characterization of human cell lines for inclusion or exclusion from compliance with the Bloodborne Pathogens Standard, would include screening of the cell lines or "strains" for viruses characterized as bloodborne pathogens by the Standard, including human immunodeficiency viruses, hepatitis viruses or EBV, if the cells are capable of propagating such viruses. Most cell lines are screened for human mycoplasmas and are free of bacterial and mycotic contaminants. Testing may include antigenic screening for viral or agent markers, cocultivation with various indicator cells that allow contaminants to grow, or using molecular technology (polymerase chain reaction or nucleic acid hybridization) to identify latent viruses capable of infecting humans such as Herpes viruses(e.g., EBV), or papilloma members of the Papovavirus group, etc. Cell lines that are procured from commercial vendors or other sources with documented testing to be free of human bloodborne pathogens and which have been protected by the employer from environmental contamination may be excluded from the bloodborne pathogen program.

**Exposure Determination**

PEOSH requires employers to determine which employees 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 personal protective equipment). This exposure determination is required to list all job classifications in which all employees may be expected to incur such occupational exposure, regardless of frequency.

*The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR shall identify job classifications in their area in which employees are exposed. This assessment will be made without accounting for the use of personal protective equipment. Use the writable blocks below to identify job classifications in your area in which employees are exposed.*

- e.g.; PhD candidate
- e.g.; Laboratory Technician
- e.g.; Nurse
- e.g.; Animal Care Taker
In addition, PEOSH requires a listing of job classifications in which some employees may have occupational exposure. Not all employees in this category would be expected to incur exposure to blood or other potentially infectious materials. Therefore, to clearly understand which employees in this category are considered to have occupational exposure, specific tasks or procedures that may cause occupational exposure in each job classification must be listed.

For those job classifications in which some employees may have occupational exposure to blood or bloodborne pathogens, the PRINCIPAL INVESTIGATOR OR AREA SUPERVISOR shall list those associated tasks or procedures that would cause employees to have potential occupational exposure. Use the writable blocks below to identify job classifications in your area in which employees are exposed.

e.g.; Administrative Assistant
e.g.; Vet Tech

e.g.; Plumber
e.g.; EHS Specialist

Note: “Good Samaritan” acts which result in exposure to blood or other potentially infectious materials from assisting a fellow employee (i.e., assisting a co-worker with nosebleed, giving CPR or first aid) are not covered by the Bloodborne Pathogens Standard. However, Post-Exposure Evaluation and Follow-up should be provided in such cases.
Compliance Methods

Standard Precautions/Universal Precautions will be observed in order to prevent contact with blood or other potentially infectious materials. Employees shall practice standard /universal precautions at all times and be trained in decontamination techniques prior to handling any blood or other potentially infectious materials. All blood or other potentially infectious will be considered infectious regardless of the perceived status of the source individual.

Universal/Standard Precautions

All facilities and departments will utilize Universal/Standard Precautions as the cornerstone of their bloodborne pathogens safety program. Universal Precautions is an infection control method which dictates that all human blood and specified human body fluids be treated as if they are infections for HIV, HBV and other bloodborne pathogens. As of 1996, the Centers for Disease Control and Prevention (CDC) recommends the use of Standard Precautions, which means that all blood and other potentially infectious materials must be treated as being infectious for HIV, HBV, HCV, and other potential pathogens regardless of patient location, age, diagnosis, quantity of blood or other body fluids or other factors.

Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials. Treat all bodily fluids / materials as infectious, including any and all instrumentation and materials which may have come in contact with body fluids such as paper, gauze, bandages, sponges, gloves, etc. Standard Precautions shall be observed at all times.

Employees shall practice standard precautions and be trained in decontamination techniques prior to handling any blood or other potentially infectious materials.

When performing activities involving potential contact the following standard precautions shall be followed:

- Hands must be washed if there is any likelihood to contact with blood, body fluids, or human tissue. If soap and water are not immediately available, an antiseptic towelette or hand sanitizer will be used as an interim measure.
- Gloves must be worn when contact with any of the following is anticipated or when breaks in the skin are present (to protect breaks in the skin, cover with waterproof bandage and double gloves should be worn): blood, body fluid, unfixed tissues, mucous membrane or contaminated surfaces.
- An impervious gown or apron must be worn if splattering of clothing is likely to occur.
- If splattering, atomization, or aerosolization is anticipated, appropriate protective equipment (such as a mask and eye protection) must be worn at all times.
- Mouthpieces, resuscitation bags and other resuscitation devices must be made available to workers for use in areas where the need for resuscitation is likely. This includes emergency response personnel.
- Sharp objects must be handled carefully.
**Engineering and Work Practice Controls**

Engineering controls include equipment that reduce or eliminate the potential for exposure to blood or other potentially infectious material without reliance on the employee to take self-protective actions. Engineering Controls include devices commercially available in a safety configuration used to reduce needle-stick injuries, such as safety needles, safety lancets, safety scalpels, needleless IV system, safe phlebotomy and butterfly devices, puncture-resistant sharps containers, Biological Safety Cabinets, etc. Engineering controls should be utilized first when attempting to control exposures to blood and other potentially infectious materials.

At Rowan University, the following engineering controls shall be utilized:

- **Biological Safety Cabinets** provide containment of infectious aerosols; isolate the operator from the agent; protect other personnel in the room. Cabinets must be certified annually or whenever moved. Contact EHS for assistance with cabinet selection and proper placement in the laboratory.
- **Sharps containers** are used for disposal of all needles, syringes and other sharps. Disposable sharps shall be separated from reusable sharps at the time of their disposal. All sharps shall be placed in an appropriate sharps container immediately or as soon as possible after use. Place sharps containers as near to procedure area as possible. Sharps containers must be non-breakable, puncture resistant, leak proof, sealable and labeled with the universal biohazard symbol. Sharps containers must be replaced periodically when they are 2/3-3/4 full. For more details, consult EHS. Reusable syringes and needles and other sharps must be placed in a separate container filled with disinfectant prior to decontamination and cleaning. To eliminate sorting later, do not place reusable sharps in pans containing pipettes or other glassware.
- **Mechanical pipetting devices** must be used. Mouth pipetting is prohibited.
- Sharps with **engineered sharps injury protection and needleless systems** are recommended. University personnel evaluate devices for effectiveness in reducing the risk of exposure incidents.
- **Splash guards and plastic backed absorbent pads** must be used to contain the spread of blood and potentially infectious material in the laboratory.
- **Sealed rotor heads and centrifuge cups** are used to avoid accidental spills and are an integral part of routine centrifuge operation.

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of engineering controls is the responsibility of the Principal Investigator or Area Supervisor.

Contaminated equipment (biosafety cabinets, mechanical pipetting devices, splash guards, etc.) must be decontaminated when contamination occurs, at the end of the workday, or immediately after a spill.
Work Practice Controls

Work practice controls include practices performed on an administrative level to further reduce the likelihood of exposure to bloodborne pathogens. Examples of work practice controls may include labeling patient samples, using a designated refrigerator for patient samples only, and that the end user is the only user of sharps, etc.

At Rowan University, the following work practice controls shall be utilized:

Hand washing

Hand washing facilities must be readily accessible to all employees who incur exposure to blood or other potentially infectious materials.

Hand washing facilities are located in laboratories and clinical areas.

If hand washing facilities are not readily available, the PRINCIPAL INVESTIGATOR/AREA SUPERVISOR is required to provide either an antiseptic cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. If these alternatives are used then the hands are to be washed with soap and running water as soon as feasible.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin areas immediately or as soon as feasible with soap and potable water. If employees incur exposure to their skin or mucous membranes, those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Exercise hand hygiene prior to putting on gloves and immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of microorganism to other patients or environments.

It may be necessary to exercise hand hygiene between tasks and procedures on the same patient to prevent cross-contamination of different body sites.

More information on hand hygiene can be found at the CDC website: [http://www.cdc.gov/handwashing/](http://www.cdc.gov/handwashing/) and the World Health Organization website: [http://www.who.int/gpsc/tools/Pocket-Leaflet.pdf?ua=1](http://www.who.int/gpsc/tools/Pocket-Leaflet.pdf?ua=1)

Sharps/Needles

Sharps containers shall be used for the disposal of all syringes, needles, scalpel blades, glass ware (broken and intact), petri dishes, pipettes, hard plastic which has the ability to shatter under pressure, and any other materials which may have become contaminated and has the ability to cut or pierce the skin and/or breach mucus membranes. Sharps containers shall not be moved unless properly closed to prevent spillage.
Minimize handling all sharps.

Never bend, recap, or otherwise manipulate contaminated needles using both hands, or use any other technique that involves directing the point of a needle toward any part of the body; rather, use either a one-handed “scoop” technique or a mechanical device designed for holding the needle sheath.

Immediately or as soon as possible, place used disposable syringes and needles (as an intact unit), scalpel blades, and other sharp items in a biohazard labeled and puncture resistant container that is to remain in an upright position. At all times, containers shall be located as close as practical to the area in which the items were used or reasonably anticipated to be found.

No sharps containers will be opened, emptied or cleaned manually, or in any other manner, which would expose employees to the risk of percutaneous injury.

Take care to prevent injuries when using needles, scalpels, and other sharp instruments or devices; when handling sharp instruments after procedures; when cleaning used instruments; and when disposing of used sharps.

Place reusable sharps, in a manner that does not require employees to reach, by hand, into the container (e.g. syringes, needles, scalpels, scissors, etc.) in a biohazard labeled and puncture-resistant container for transport to the reprocessing area.

- Do not reach into sharps container for any reason.
- Do not dispose of sharps in regular trash.
- Do not dispose non-sharps in sharps container.
- Do not use cardboard containers for disposal of sharps.
- Lids are to be kept closed on containers at all times.
- Do not pick up broken glass by hand; use mechanical means (brush and dustpan, tongs, or forceps). Dispose of the sharps properly (in a sharps container).

Replace sharps containers when contents inside reach the “DO NOT FILL ABOVE THIS LINE”.

The container must be closed prior to removal from the area to prevent spillage or protrusion of contents. Appropriate secondary containment shall be used if leakage is possible.

*Mixed waste sharps contaminated with carcinogens or mutagens must be separated from other sharps. These sharps must be discarded in an approved sharps container, labeled “Carcinogen Contaminated Sharps / Do
“Not Autoclave” and removed with other regulated medical waste. Sharps contaminated with radionuclides must be separated from other sharps. These sharps must be discarded in an approved sharps container, labeled “Radioactive Contaminated Sharps / Do Not Autoclave” and disposed of as radioactive sharps waste.

In the event of a needle stick or any other injury resulting from exposure to contaminated sharps, employees should, take the following actions:

Immediately cleanse the affected area with soap and water. Use plenty of soap and water. If the eyes, nose or mouth are exposed, rinse with water only (do not use soap).

Complete an Incident Report Form within 24 hours.

A copy of the Incident Report Form is found on the Rowan University website:

(www.rowan.edu/adminfinance/new/downloadable_forms/incident_report.docx)

A copy of the Incident Report Form is also found in APPENDIX C.

EHS may conduct an accident investigation after any exposure incident.

**Regulated Medical Waste Not Defined as Sharps**

All regulated medical waste not classified as a sharp shall be disposed in red biohazard labeled bags.

Regulated medical waste red biohazard labeled bags shall be contained in designated and labeled containers.

Lids are to be kept closed on containers at all times.

Containers and lids used to hold/cover regulated medical waste red biohazard labeled bags shall be routinely cleaned with a 10% bleach solution by laboratory/area staff.

Do not dispose of regulated medical waste sharps directly in regulated medical waste re biohazard labeled bags.

Do not dispose of trash in regulated medical waste re biohazard labeled bags.
Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees shall not eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present. Mouth pipetting/suctioning of potentially infectious materials is prohibited. All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR is responsible for identifying methods that will be employed in their areas to minimize splashing, splattering and generation of blood or other potentially infectious materials. Use the fillable block below to identify methods you will employ to minimize splashing, splattering, and generation of blood or other potentially infectious materials.

Specimen Handling and Transport

Blood or other potentially infectious materials will be placed in a container that prevents leakage during the collection, handling, processing, storage, and transport of the specimen. The container used for this purpose will be labeled or color coded in accordance with the requirements of the OSHA Bloodborne Pathogens Standard and will be closed prior to handling. In order to qualify for an exemption to this requirement, standard precautions shall be practiced in the handling of all specimens. Any specimens that could puncture a primary container will be placed within a puncture resistant secondary container.

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR shall specify which specimens, if any, could puncture a primary container, which containers to use as secondary containers and where secondary containers are located. Use the fillable block below to identify specimens, if any, that could puncture a primary container, which containers to use as secondary containers and where secondary containers are located.

If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container which prevents leakage during the handling, processing, storage, transport, or shipping of the infectious agent (which are considered Dangerous Goods). All shippers of
infectious material must attend biennial training to fulfill regulatory requirements. For details, call EHS.

Contaminated Equipment

Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

A bio-hazard label shall be attached to the equipment stating which portions remain contaminated. The Principal Investigator or Area Supervisor shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, and prior to handling, servicing, or shipping so that appropriate precautions shall be taken.

*The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR shall list any equipment that cannot be decontaminated prior to servicing or shipping. Use the fillable block below to identify any equipment that cannot be decontaminated prior to servicing or shipping.*

*The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR must contact the shipper or service provider to obtain their labeling requirements prior to shipping or servicing of contaminated equipment.*

Personal Protective Equipment

OSHA standard 29 CFR 1910.132 requires workplace assessment for potential hazards and mandates that employers provide appropriate personal protective equipment (PPE) for employees. Principal Investigators or Area Supervisors are responsible to perform the assessments and to select and train employees in the use of routine items such as lab coats, protective gloves, safety glasses, face shields, etc. Principal Investigators or Area Supervisors shall consult with EHS for assistance with the selection and training of employees for the use of non-routine PPE such as respirators. Personal protective equipment shall be provided *without cost* to all employees who are at risk of occupational exposure to bloodborne pathogens. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used. Personal protective equipment includes
but is not limited to: gloves, surgical gowns, laboratory coats and jackets, face shields, masks, protective eyewear with solid side shields and shoe covers.

_The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR_ will ensure that personal protective equipment is provided and worn by employees as needed and that training in the proper wearing and use of such equipment is provided. _The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR_ will list how personal protective equipment will be provided, i.e., its location and/or who has responsibility for its distribution. _Use the fillable block below to list how personal protective equipment will be provided, its location, and who is responsible for its distribution._

All personal protective equipment will be cleaned, laundered, and disposed of by the employer at no cost to employees. Soiled personal protective equipment must not be taken home to launder. The employer will make all repairs and replacements at no cost to employees. All garments that are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area.

_The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR shall list where employees are expected to place the personal protective equipment upon leaving the work area. Use the fillable block below to list where employees are expected to place the personal protective equipment upon leaving the area._

Gloves: Gloves shall be worn where it is reasonably anticipated that employees may have hand contact with blood, other potentially infectious materials, non-intact skin and mucous membranes, and when handling or touching contaminated items or surfaces. Routine gloving is required for all phlebotomies. EHS recommends the use of nitrile to help prevent latex allergy. If employees are allergic to the gloves normally provided, alternatives must be provided. More information on latex allergy can be obtained from EHS.

_The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR will list the procedures in their areas that require the use of gloves. Use the fillable block below to list the procedures that require gloves._

Disposable gloves 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 provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibits other signs of deterioration or when their ability to function as a barrier is compromised.

Masks, Eye Protection and Face Shields: Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.

If work requires the use of a respirator, employees must participate in the University’s respiratory protection program. Personnel must have prior medical clearance to wear a respirator and must consult with EHS on the selection and use of respiratory protective equipment.

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR will list situations in their areas that require masks, eye protection, and face shield protection. Use the fillable block below to list situations in your area where mask, eye protection and/or face shields would be used.

Protective clothing: Appropriate protective clothing shall be used, such as lab coats, gowns, aprons, clinic jackets, or similar outer garments. Disposable water-repellent overgowns shall be worn when contamination with blood or other potentially infectious materials is anticipated. If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as possible. Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated.

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR will list situations that require the use of such protective clothing. Use the fillable block below to list situations where lab coats, gowns, aprons, clinical jackets, or similar outer garments would be used.

Housekeeping/Cleaning

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR shall ensure that the laboratory is maintained in a clean and sanitary fashion.
All work areas and surfaces where there is the potential for bloodborne pathogens or other potentially infectious materials exposure must be maintained in a clean and sanitary condition. The Principal Investigator or Area Supervisor shall determine and implement an appropriate written schedule for cleaning and method of decontamination 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. A pre-existing cleaning schedule can be substituted for the one provided in APPENDIX D as long as it includes the same details, regardless of the format.

**Decontamination**

Establishing decontamination procedures is the responsibility of the **PRINCIPAL INVESTIGATOR or AREA SUPERVISOR**. A 1:10 (for a high organic load e.g. blood spill) or 1:100 dilution (for surface decontamination) of household bleach made fresh daily is recommended for use in most circumstances.

A list of EPA registered disinfectants for healthcare use can be found at the following EPA website: [http://www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm). The lists are organized alphabetically by product names and by numerical order of their EPA registration Numbers.

For further assistance in selecting an appropriate disinfectant, contact EHS.

All contaminated work surfaces will be decontaminated:

- after completion of procedures.
- immediately or as soon as feasible after any spill of blood or other potentially infectious materials.
- at the end of the workday if the surface may have become contaminated since the last cleaning.

Remove and replace protective coverings; such as plastic backed absorbent pads, plastic wrap and aluminum foil; as soon as feasible when they become overtly contaminated, or at the end of the work shift if they have been contaminated during the shift.

Inspect and decontaminate, on a regular basis, reusable receptacles such as bins, pails, and cans that have likelihood for becoming contaminated. When contamination is visible, clean and decontaminate receptacles immediately, or as soon as feasible.

Always use mechanical means such as tongs, forceps, or a brush and a dust pan to pick up contaminated broken glassware; never pick up with hands even if gloves are worn.
Store or process reusable sharps in a way that ensures safe handling.

Place regulated waste in closable and labeled or color-coded containers. When storing, handling, transporting or shipping, place other regulated waste in containers that are constructed to prevent leakage.

Place contaminated sharps in an appropriate container that is closable, puncture resistant, leak-proof, appropriately labeled, and color-coded prior to disposal.

Ensure that sharps containers are easily accessible to personnel and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found. Sharps containers also must be kept upright throughout use, replaced routinely, closed when moved, and not allowed to overfill.

Never manually open, empty, or clean reusable contaminated sharps disposal containers.

Discard all regulated waste according to Rowan University policy.

*The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR will describe the procedure to be used for decontamination and spill cleanup. Use the fillable block below to describe the procedure to be used for decontamination and spill cleanup.*

**Laundry Procedures**

*Note:* Employers are not responsible for the cost of providing, cleaning, laundering, and disposal of any personal protective equipment required to protect employees from bloodborne pathogens.

*Employees must not take home items for laundering.*

Contaminated laundry shall be handled as little as possible with a minimum of agitation. Laboratory coats and other reusable PPE that are contaminated with bloodborne pathogens or other potentially infectious materials shall be bagged or containerized at the location where it was used and must not be sorted or rinsed in the location of use. Whenever contaminated laundry is wet and presents a reasonable likelihood of leakage from the bag or container, the laundry must be placed and transported in bags or containers, which prevent leakage of fluids to the exterior. Principal Investigators or Area Supervisors shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment. Laboratory coats and other reusable PPE that are grossly contaminated with
bloodborne pathogens or other potentially infectious materials can be disposed of as regulated medical waste. A new laboratory coat or other reusable PPE will be provided to the employee.

All generators of laundry must have determined if the receiving facility uses Standard Precautions. If Standard Precautions are not used, then clearly mark laundry sent off-site with orange biohazard labels or use red bags.

**Note:** Disposable protective clothing can be used to eliminate or greatly reduce the need for laundering.

### HIV and HBV Research Laboratories and Production Facilities

If anyone at Rowan University wishes to work with HIV or HBV, they shall notify EHS at the planning stage. The OSHA Bloodborne Pathogens Standard has specific guidelines that must be followed when working with HIV and HBV beyond the scope of this Exposure Control Plan.

Contact EHS for further information.

### Labeling and Signs

Labels: Biohazard warning labels shall be attached to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials, lab equipment in which biohazards are stored or used (e.g. incubators, centrifuges, etc.), sharps containers, contaminated equipment awaiting repair, laundry bags and containers, and other containers used to transport or ship blood or other potentially infectious materials.

The warning label must be fluorescent orange or orange-red, contain the biohazard symbol and the word "BIOHAZARD" in a contrasting color, and be attached to each object by string, wire, adhesive, or other method to prevent loss or unintentional removal of the label.

Labels required under this section must consist of the following:

- the universal biohazard symbol in fluorescent orange or orange-red or predominantly so with lettering or symbols in a contrasting color.

- Must be affixed as close as feasible to the container by string, wire adhesive, or other methods that prevent their loss or unintentional removal.

Labels required for contaminated equipment will be in accordance with this section and must also indicate which portions of the equipment are contaminated.
All laboratories covered by the Bloodborne Pathogens Standard and those working at Biological Safety Level-2 or higher must display a sign at the entrance to the work area incorporating the universal biohazard symbol. The sign shall include the following:

- Name of infectious agent
- Special requirements for entering the area
- Name and telephone number of the laboratory director or other responsible person
- Universal biohazard symbol

**Medical Surveillance**

*In accordance with the Health Insurance Portability and Accountability Act or HIPAA, effective April 14, 2003, all patient-related medical information will be kept confidential.*

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20.

In addition to the requirements of 29 CFR 1910.20, the medical record will include:

- The name and social security number of employee;
- A copy of the employee's hepatitis B vaccinations and any medical record
• relative to the employee's ability to receive vaccination;
• A copy of all results of examinations, medical testing, and follow-up procedures as required by the standard;
• A copy of all healthcare professional's written opinion(s) as required by the Standard

All employee medical records will be kept confidential and will not be disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by the standard or as may be required by law.

Employee medical records shall be maintained for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.20.

Employee medical record shall be provided upon request of the employee or to anyone having written consent of the employee within 15 working days.

**Hepatitis B Vaccine**

The PRINCIPAL INVESTIGATOR or AREA SUPERVISOR will ensure that all employees who have been identified as having exposure to blood or other potentially infectious materials are offered the Hepatitis B vaccine, at no cost to the employee within 10 days of initial assignment. A general overview of its safety, benefits, efficacy, methods of administration and availability can be found in APPENDIX E.

Employees who decline the Hepatitis B vaccine will be asked to sign a Declination Waiver that uses the following wording:

“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.”

A copy of the Hepatitis B Declination Waiver can be found in APPENDIX F.

**Post-Exposure Evaluation and Follow-Up**

When an employee incurs an exposure, it should be reported to the PRINCIPAL INVESTIGATOR/AREA SUPERVISOR and EHS.
All employees who incur an exposure will be offered post-exposure evaluation and follow-up in accordance with the OSHA Bloodborne Pathogens Standard. When an employee incurs an exposure, he/she should report as follows:

The evaluation and follow-up will include the following:

- Documentation of the route of exposure and the circumstances related to the incident.
- If possible, the identification of the source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained by the PRINCIPAL INVESTIGATOR or AREA SUPERVISOR) for HIV/HBV/HCV infectivity.
- Results of testing of the source individual will be made available to the exposed employee along with information about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The employee will be offered the option of having blood collected for testing of his/her HIV/HBV/HCV serological status. The blood sampling will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time that testing will be conducted then the blood sample will be discarded after the results are obtained.
- The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service (USPHS). For a copy of these recommendations, contact EHS.
- The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on potential signs and symptoms of illness and told to report these to Occupational Medicine, should they occur.
- Medical records will be obtained and kept in accordance with all applicable regulations.

**Interaction with Health Care Professional**

The health care provider shall provide EHS with a written opinion within 15 days after the exposed employee has been evaluated. Written opinions will be obtained in the following instances:

- when the employee is sent to obtain the Hepatitis B vaccine.
- whenever the employee is sent to a health care professional following an exposure incident.
Health care professionals shall be instructed to limit their opinions to:

- whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine,
- the employee has been informed of the results of the evaluation, and
- the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. The written opinion to the employer must not reference any personal medical information.

Evaluative Measures

Safety Sharps

Occupational Safety and Health Administration OSHA announced changes to the Bloodborne Pathogens Standard 29 CFR Part 1910.1030, effective April 18, 2001. The Needlestick Safety and Prevention Act, effective April 18, 2001, mandated these changes, which require employers to 1) use of needleless and engineered sharps injury protection (ESIP) systems to further isolate or remove the bloodborne pathogens hazards and 2) involve employees in identifying and choosing the devices to help reduce needle stick injuries among healthcare workers and others who handle medical sharps.

If sharps use is unavoidable, consider the use of ESIP systems. ESIP systems include mechanisms that create a barrier, encapsulate, or withdraw the hazard.

A copy of The Needlestick Safety and Prevention Act can be found on the CDC website:  

The Bloodborne Pathogen Standard requires any laboratory using human or primate blood, blood products, cell lines, tissues or other potentially infectious materials to use Needleless Systems/and or engineered sharps (‘safety sharps’).

The Bloodborne Pathogens Standard also requires documentation of use of non-safety sharps. The evaluation process for the use of a non-safety sharp must be documented. Any use of non-safety sharps must be re-evaluated and documented annually. A template to document the use of non-sharps can be found in APPENDIX G.

A sharps device without safety feature(s) may only be used if:

- Alternative products are not market-available
- Alternative products do not clearly improve safety
Available product(s) jeopardize(s) patient safety

A list of safety-engineered devices designed to prevent needlestick/blood and body fluid exposures to healthcare workers can be found at the following link: http://www.healthsystem.virginia.edu/pub/epinet/new/safetydevice.html

Information and Training

Training

Training for all employees potentially at-risk will be conducted prior to initial assignment to tasks where occupational exposure to human source materials or other potential infectious materials may occur; and annually thereafter.

Initial and annual update training is required and provided through the online Collaborative Institutional Training Initiative (CITI) Training Program. The online training can be found at:

The link to register and obtain training is: www.citiprogram.org.

This link will take you to a web page with further links entitled 1) guidance for registration, 2) module/course selection, 3) course requirements and 4) frequently asked questions.

Additional information about training is available from EHS.

Training for employees will include the following elements listed in the standard:

1. Accessible copy of the regulatory text of the standard and an explanation of its contents
2. A general explanation of the epidemiology and symptoms of bloodborne diseases;
3. An explanation of the modes of transmission of bloodborne pathogens;
4. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;
5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
6. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
7. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
8. An explanation of the basis for selection of personal protective equipment;
9. Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being
vaccinated, and that the vaccine and vaccination will be offered free of charge;

10. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

11. 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;

12. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

13. An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

14. An opportunity for interactive questions and answers with the person conducting the training session.

15. Employees will receive annual refresher training, which will be conducted within one year of the employee's previous training.

16. A copy of the OSHA standard "Occupational Exposure to Bloodborne Pathogens" may be obtained from the OSHA web site https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051 or by calling EHS.

Clinics, Departments, and Principal Investigators/Area Supervisors shall provide additional training that is laboratory or area specific. They shall provide additional training when changes (such as modification of tasks or procedures or institution of new tasks or procedures) affect the employee’s occupational exposure. The additional training may be limited to addressing the new exposures created.

**Record keeping**

All training records required by the OSHA standard will be maintained by EHS.

Records will be maintained for 3 years from the date of training in accordance with 29 CFR 1910.1030(h)(2)(ii).

EHS will ensure all required training records are made available upon request for examination and copying to employees, to employee representatives, to the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Health and Human Services (or designated representative) in accordance with 29 CFR 1910.20.

Rowan University will comply with all record transfer requirements outlined in 29 CFR 1910.20(h).
Interpretation(s)

(a)

**Scope and Application.** This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b)

**Definitions.** For purposes of this section, the following shall apply:

**Assistant Secretary** means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

**Blood** means human blood, human blood components, and products made from human blood.

**Bloodborne Pathogens** means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

**Clinical Laboratory** means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

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

**Contaminated Laundry** means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

**Contaminated Sharps** means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.
**Decontamination** means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

**Director** means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

**Engineering Controls** means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

**Exposure Incident** means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

**Handwashing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

**Licensed Healthcare Professional** is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

**HBV** means hepatitis B virus.

**HIV** means human immunodeficiency virus.

**Needleless systems** means a device that does not use needles for:
(1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

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

**Other Potentially Infectious Materials** means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.
**Parenteral** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**Personal Protective Equipment** is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

**Production Facility** means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

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

**Research Laboratory** means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

**Sharps with engineered sharps injury protections** means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

**Source Individual** means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

**Sterilize** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

**Universal Precautions** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

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

*Exposure Control* --  

(c)(1)  

*Exposure Control Plan.*  

(c)(1)(i)  
Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.  

(c)(1)(ii)  
The Exposure Control Plan shall contain at least the following elements:  

(c)(1)(ii)(A)  
The exposure determination required by paragraph (c)(2),  

1910.1030(c)(1)(ii)(B)  

(c)(1)(ii)(B)  
The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and  

(c)(1)(ii)(C)  
The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.  

(c)(1)(iii)  
Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).  

(c)(1)(iv)  
The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:  

(c)(1)(iv)(A)  
Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and  

(c)(1)(iv)(B)
Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

(c)(1)(v)
An employer, who is required to establish an Exposure Control Plan shall solicit input from nonmanagerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

(c)(2)

*Exposure Determination.*

(c)(2)(i)
Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(c)(2)(i)(A)
A list of all job classifications in which all employees in those job classifications have occupational exposure;

1910.1030(c)(2)(i)(B)

(c)(2)(i)(B)
A list of job classifications in which some employees have occupational exposure, and

(c)(2)(i)(C)
A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(c)(2)(ii)
This exposure determination shall be made without regard to the use of personal protective equipment.

(d)

*Methods of Compliance --*

(d)(1)

*General.* Universal precautions shall be 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 shall be considered potentially infectious materials.

(d)(2)

Engineering and Work Practice Controls.

(d)(2)(i)
Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

1910.1030(d) (2)(ii)

(d)(2)(ii)
Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(d)(2)(iii)
Employers shall provide handwashing facilities which are readily accessible to employees.

(d)(2)(iv)
When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(d)(2)(v)
Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(d)(2)(vi)
Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

(d)(2)(vii)
Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

1910.1030(d) (2)(vii)(A)

(d)(2)(vii)(A)
Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

(d)(2)(vii)(B)
Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(d)(2)(viii)
Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(d)(2)(viii)(A)
Puncture resistant;

(d)(2)(viii)(B)
Labeled or color-coded in accordance with this standard;

(d)(2)(viii)(C)
Leakproof on the sides and bottom; and

(d)(2)(viii)(D)
In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

(d)(2)(ix)
Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(d)(2)(x)
Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

1910.1030(d)(2)(xi)

(d)(2)(xi)
All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(d)(2)(xii)
Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(d)(2)(xiii)
Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
(d)(2)(xiii)(A)
The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(d)(2)(xiii)(B)
If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

1910.1030(d)(2)(xiii)(C)

(d)(2)(xiii)(C)
If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

(d)(2)(xiv)
Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(d)(2)(xiv)(A)
A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(d)(2)(xiv)(B)
The employer shall ensure that 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 will be taken.

(d)(3)

Personal Protective Equipment

{d}(3)(i)

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

(d)(3)(ii)

*Use.* The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(d)(3)(iii)

*Accessibility.* The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(d)(3)(iv)

*Cleaning, Laundering, and Disposal.* The employer shall clean, launder, and dispose of: personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

1910.1030(d)(3)(v)

(d)(3)(v)

*Repair and Replacement.* The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(d)(3)(vi)

If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

(d)(3)(vii)

All personal protective equipment shall be removed prior to leaving the work area.

(d)(3)(viii)

When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

(d)(3)(ix)
Gloves. Gloves shall be 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 except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

(d)(3)(ix)(A)
Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

1910.1030(d)(3)(ix)(B)

(d)(3)(ix)(B)
Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(d)(3)(ix)(C)
Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(d)(3)(ix)(D)
If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

(d)(3)(ix)(D)(1)
Periodically reevaluate this policy;

(d)(3)(ix)(D)(2)
Make gloves available to all employees who wish to use them for phlebotomy;

(d)(3)(ix)(D)(3)
Not discourage the use of gloves for phlebotomy; and

(d)(3)(ix)(D)(4)
Require that gloves be used for phlebotomy in the following circumstances:

(d)(3)(ix)(D)(4)(i)
When the employee has cuts, scratches, or other breaks in his or her skin;

(d)(3)(ix)(D)(4)(ii)
When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

(d)(3)(ix)(D)(4)(iii)
When the employee is receiving training in phlebotomy.
**1910.1030(d)(3)(x)**

(d)(3)(x)

*Masks, Eye Protection, and Face Shields.* Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(d)(3)(xi)

*Gowns, Aprons, and Other Protective Body Clothing.* Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(d)(3)(xii)

Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

(d)(4)

*Housekeeping* --

(d)(4)(i)

*General.* Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination 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.

(d)(4)(ii)

All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

**1910.1030(d)(4)(ii)(A)**

(d)(4)(ii)(A)

Contaminated work surfaces shall 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 work shift if the surface may have become contaminated since the last cleaning.
(d)(4)(ii)(B)
Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

(d)(4)(ii)(C)
All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

(d)(4)(ii)(D)
Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(d)(4)(ii)(E)
Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(d)(4)(iii)

Regulated Waste --

1910.1030(d)(4)(iii)(A)

(d)(4)(iii)(A)

Contaminated Sharp's Discarding and Containment.

(d)(4)(iii)(A)(I)
Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

(d)(4)(iii)(A)(I)(i)
Closable;

(d)(4)(iii)(A)(I)(ii)
Puncture resistant;

(d)(4)(iii)(A)(I)(iii)
Leakproof on sides and bottom; and

(d)(4)(iii)(A)(I)(iv)
Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(2)
During use, containers for contaminated sharps shall be:

(d)(4)(iii)(A)(2)(i)
Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

(d)(4)(iii)(A)(2)(ii)
Maintained upright throughout use; and

(d)(4)(iii)(A)(2)(iii)
Replaced routinely and not be allowed to overfill.

(d)(4)(iii)(A)(3)
When moving containers of contaminated sharps from the area of use, the containers shall be:

(d)(4)(iii)(A)(3)(i)
Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

(d)(4)(iii)(A)(3)(ii)
Placed in a secondary container if leakage is possible. The second container shall be:

(d)(4)(iii)(A)(3)(ii)(A)
Closable;

Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

(d)(4)(iii)(A)(3)(ii)(C)
Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(4)
Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(d)(4)(iii)(B)

Other Regulated Waste Containment --

(d)(4)(iii)(B)(J)
Regulated waste shall be placed in containers which are:

(d)(4)(iii)(B)(J)(i)
Closable;
(d)(4)(iii)(B)(1)(ii)
Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(d)(4)(iii)(B)(1)(iii)
Labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and

(d)(4)(iii)(B)(1)(iv)
Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(B)(2)
If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

(d)(4)(iii)(B)(2)(i)
Closable;

(d)(4)(iii)(B)(2)(ii)
Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(d)(4)(iii)(B)(2)(iii)
Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

(d)(4)(iii)(B)(2)(iv)
Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(C)
Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

1910.1030(d)(4)(iv)

(d)(4)(iv)

Laundry.

(d)(4)(iv)(A)
Contaminated laundry shall be handled as little as possible with a minimum of agitation.

(d)(4)(iv)(A)(1)
Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.
(d)(4)(iv)(A)(2)
Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it: permits all employees to recognize the containers as requiring compliance with Universal Precautions.

(d)(4)(iv)(A)(3)
Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(d)(4)(iv)(B)
The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

1910.1030(d)(4)(iv)(C)

(d)(4)(iv)(C)
When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

(e)

HIV and HBV Research Laboratories and Production Facilities.

(e)(1)
This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

(e)(2)
Research laboratories and production facilities shall meet the following criteria:

(e)(2)(i)

Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
(e)(2)(ii)

Special Practices.

(e)(2)(ii)(A)
Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

1910.1030(e)(2)(ii)(B)

(e)(2)(ii)(B)
Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work area.

(e)(2)(ii)(C)
Access to the work area shall be limited to authorized persons. Written policies and procedures shall be 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 shall be allowed to enter the work areas and animal rooms.

(e)(2)(ii)(D)
When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

(e)(2)(ii)(E)
All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(e)(2)(ii)(F)
Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

1910.1030(e)(2)(ii)(G)

(e)(2)(ii)(G)
Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

(e)(2)(ii)(H)
Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii)(I)
Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(e)(2)(ii)(J)
Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(e)(2)(ii)(K)
All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

1910.1030(e)(2)(ii)(L)

(e)(2)(ii)(L)
A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(e)(2)(ii)(M)
A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(e)(2)(iii)

Containment Equipment.

(e)(2)(iii)(A)
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, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.
(e)(2)(iii)(B) Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(e)(3) HIV and HBV research laboratories shall meet the following criteria:

1910.1030(e)(3)(i)

(e)(3)(i) Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

(e)(3)(ii) An autoclave for decontamination of regulated waste shall be available.

(e)(4) HIV and HBV production facilities shall meet the following criteria:

(e)(4)(i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(e)(4)(ii) The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

1910.1030(e)(4)(iii)

(e)(4)(iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(e)(4)(iv) Access doors to the work area or containment module shall be self-closing.

(e)(4)(v) An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.
(e)(4)(vi)
A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(e)(5)

Training Requirements. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f)

Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up --

1910.1030(f)(1)

(f)(1)(i)
The employer shall make 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.

(f)(1)(ii)
The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(f)(1)(ii)(A)
Made available at no cost to the employee;

(f)(1)(ii)(B)
Made available to the employee at a reasonable time and place;

(f)(1)(ii)(C)
Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(f)(1)(ii)(D)
Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).
The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

1910.1030(f)(2)

(f)(2)

**Hepatitis B Vaccination.**

(f)(2)(i) Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have 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.

(f)(2)(ii) The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(f)(2)(iii) If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

(f)(2)(iv) The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in Appendix A.

(f)(2)(v) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

(f)(3)

**Post-exposure Evaluation and Follow-up.** Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(f)(3)(i) Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;
Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Collection and testing of blood for HBV and HIV serological status;

The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

Counseling; and
(f)(3)(vi)
Evaluation of reported illnesses.

(f)(4)

**Information Provided to the Healthcare Professional.**

(f)(4)(i)
The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(f)(4)(ii)
The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(f)(4)(ii)(A)
A copy of this regulation;

(f)(4)(ii)(B)
A description of the exposed employee's duties as they relate to the exposure incident;

(f)(4)(ii)(C)
Documentation of the route(s) of exposure and circumstances under which exposure occurred;

\(1910.1030(f)(4)(ii)(D)\)

(f)(4)(ii)(D)
Results of the source individual's blood testing, if available; and

(f)(4)(ii)(E)
All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

(f)(5)

**Healthcare Professional's Written Opinion.** The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

(f)(5)(i)
The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.
(f)(5)(ii)
The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

(f)(5)(ii)(A)
That the employee has been informed of the results of the evaluation; and

(f)(5)(ii)(B)
That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

1910.1030(f)(5)(iii)

(f)(5)(iii)
All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(f)(6)

*Medical Recordkeeping.* Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g)

*Communication of Hazards to Employees* --

(g)(1)

*Labels and Signs* --

(g)(1)(i)

*Labels.*

(g)(1)(i)(A)
Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(g)(1)(i)(B)
Labels required by this section shall include the following legend:

(g)(1)(i)(C)
These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.
Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

1910.1030(g)(1)(i)(E)

(g)(1)(i)(E)
Red bags or red containers may be substituted for labels.

(g)(1)(i)(F)
Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

(g)(1)(i)(G)
Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(g)(1)(i)(H)
Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

(g)(1)(i)(I)
Regulated waste that has been decontaminated need not be labeled or color-coded.

(g)(1)(ii)

Signs.

(g)(1)(ii)(A)
The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

    (Name of the Infectious Agent)
    (Special requirements for entering the area)
    (Name, telephone number of the laboratory director or other responsible person.)

1910.1030(g)(1)(ii)(B)

(g)(1)(ii)(B)
These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.
(g)(2)  

Information and Training.  

(g)(2)(i)  
Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.  

(g)(2)(ii)  
Training shall be provided as follows:  

(g)(2)(ii)(A)  
At the time of initial assignment to tasks where occupational exposure may take place;  

(g)(2)(ii)(B)  
Within 90 days after the effective date of the standard; and  

(g)(2)(ii)(C)  
At least annually thereafter.  

(g)(2)(iii)  
For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.  

(g)(2)(iv)  
Annual training for all employees shall be provided within one year of their previous training.  

1910.1030(g)(2)(v)  

(g)(2)(v)  
Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.  

(g)(2)(vi)  
Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.  

(g)(2)(vii)  
The training program shall contain at a minimum the following elements:  

(g)(2)(vii)(A)  
An accessible copy of the regulatory text of this standard and an explanation of its contents;
(g)(2)(vii)(B)
A general explanation of the epidemiology and symptoms of bloodborne diseases;

(g)(2)(vii)(C)
An explanation of the modes of transmission of bloodborne pathogens;

(g)(2)(vii)(D)
An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(g)(2)(vii)(E)
An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

1910.1030(g)(2)(vii)(F)

(g)(2)(vii)(F)
An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

(g)(2)(vii)(G)
Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(g)(2)(vii)(H)
An explanation of the basis for selection of personal protective equipment;

(g)(2)(vii)(I)
Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

(g)(2)(vii)(J)
Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(g)(2)(vii)(K)
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;

(g)(2)(vii)(L)
Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
(g)(2)(vii)(M)
An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

(g)(2)(vii)(N)
An opportunity for interactive questions and answers with the person conducting the training session.

(g)(2)(viii)
The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

(g)(2)(ix)
Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(g)(2)(ix)(A)
The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(g)(2)(ix)(B)
The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

(g)(2)(ix)(C)
The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h)

Recordkeeping --

(h)(1)

Medical Records.
(h)(1)(i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

(h)(1)(ii) This record shall include:

(h)(1)(ii)(A) The name and social security number of the employee;

(h)(1)(ii)(B) A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

(h)(1)(ii)(C) A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(h)(1)(ii)(D) The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

(h)(1)(ii)(E) A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

1910.1030(h)(1)(ii)(E)

(h)(1)(ii)(E) A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

(h)(1)(iii) Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(h)(1)(iii)(A) Kept confidential; and

(h)(1)(iii)(B) Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(h)(1)(iv) The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

(h)(2)

Training Records.
(h)(2)(i)
Training records shall include the following information:

(h)(2)(i)(A)
The dates of the training sessions;

(h)(2)(i)(B)
The contents or a summary of the training sessions;

(h)(2)(i)(C)
The names and qualifications of persons conducting the training; and

1910.1030(h)(2)(i)(D)

(h)(2)(i)(D)
The names and job titles of all persons attending the training sessions.

(h)(2)(ii)
Training records shall be maintained for 3 years from the date on which the training occurred.

(h)(3)
Availability.

(h)(3)(i)
The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(h)(3)(ii)
Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

(h)(3)(iii)
Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

1910.1030(h)(4)

(h)(4)
Transfer of Records.
(h)(4)(i)
The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

(h)(4)(ii)
If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(h)(5)

Sharps injury log.

(h)(5)(i)
The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

(h)(5)(i)(A)
The type and brand of device involved in the incident,

(h)(5)(i)(B)
The department or work area where the exposure incident occurred, and

(h)(5)(i)(C)
An explanation of how the incident occurred.

(h)(5)(ii)
The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR 1904.

(h)(5)(iii)
The sharps injury log shall be maintained for the period required by 29 CFR 1904.6.

(i)

Dates --

(i)(1)

Effective Date. The standard shall become effective on March 6, 1992.
The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(i)(3) Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

APPENDIX B

Biosafety Level 2

Biosafety Level 2 builds upon BSL-1. BSL-2 is suitable for work involving agents that pose moderate hazards to personnel and the environment. It differs from BSL-1 in that: 1) laboratory personnel have specific training in handling pathogenic agents and are supervised by scientists competent in handling infectious agents and associated procedures; 2) access to the laboratory is restricted when work is being conducted; and 3) all procedures in which infectious aerosols or splashes may be created are conducted in BSCs or other physical containment equipment.

The following standard and special practices, safety equipment, and facility requirements apply to BSL-2.

A. Standard Microbiological Practices

1. The laboratory supervisor must enforce the institutional policies that control access to the laboratory.

2. Persons must wash their hands after working with potentially hazardous materials and before leaving the laboratory.

3. Eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption must not be permitted in laboratory areas. Food must be stored outside the laboratory area in cabinets or refrigerators designated and used for this purpose.

4. Mouth pipetting is prohibited; mechanical pipetting devices must be used.

5. Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware must be developed and implemented. Whenever practical, laboratory supervisors should adopt improved engineering and work practice controls that reduce risk of sharps injuries. Precautions, including those listed below, must always be taken with sharp items. These include:

   a. Careful management of needles and other sharps are of primary importance. Needles must not be bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated by hand before disposal.

   b. Used disposable needles and syringes must be carefully placed in conveniently located puncture-resistant containers used for sharps disposal.

   c. Non-disposable sharps must be placed in a hard walled container for transport to a processing area for decontamination, preferably by autoclaving.

   d. Broken glassware must not be handled directly. Instead, it must be removed using a brush and dustpan, tongs, or forceps. Plastic ware should be substituted for glassware whenever possible.

6. Perform all procedures to minimize the creation of splashes and/or aerosols.
7. Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant.

8. Decontaminate all cultures, stocks, and other potentially infectious materials before disposal using an effective method. Depending on where the decontamination will be performed, the following methods should be used prior to transport:

   a. Materials to be decontaminated outside of the immediate laboratory must be placed in a durable, leak proof container and secured for transport.

   b. Materials to be removed from the facility for decontamination must be packed in accordance with applicable local, state, and federal regulations.

9. A sign incorporating the universal biohazard symbol must be posted at the entrance to the laboratory when infectious agents are present. Posted information must include: the laboratory’s biosafety level, the supervisor’s name (or other responsible personnel), telephone number, and required procedures for entering and exiting the laboratory. Agent information should be posted in accordance with the institutional policy.

10. An effective integrated pest management program is required. (See Appendix G.)

11. The laboratory supervisor must ensure that laboratory personnel receive appropriate training regarding their duties, the necessary precautions to prevent exposures, and exposure evaluation procedures. Personnel must receive annual updates or additional training when procedural or policy changes occur. Personal health status may impact an individual’s susceptibility to infection, ability to receive immunizations or prophylactic interventions. Therefore, all laboratory personnel and particularly women of childbearing age should be provided with information regarding immune competence and conditions that may predispose them to infection. Individuals having these conditions should be encouraged to self-identify to the institution’s healthcare provider for appropriate counseling and guidance.

**B. Special Practices**

1. All persons entering the laboratory must be advised of the potential hazards and meet specific entry/exit requirements.

2. Laboratory personnel must be provided medical surveillance, as appropriate, and offered available immunizations for agents handled or potentially present in the laboratory.

3. Each institution should consider the need for collection and storage of serum samples from at-risk personnel.

4. A laboratory-specific biosafety manual must be prepared and adopted as policy. The biosafety manual must be available and accessible.

5. The laboratory supervisor must ensure that laboratory personnel demonstrate proficiency in standard and special microbiological practices before working with BSL-2 agents.

6. Potentially infectious materials must be placed in a durable, leak proof container during collection, handling, processing, storage, or transport within a facility.
7. Laboratory equipment should be routinely decontaminated, as well as, after spills, splashes, or other potential contamination.
   a. Spills involving infectious materials must be contained, decontaminated, and cleaned up by staff properly trained and equipped to work with infectious material.
   b. Equipment must be decontaminated before repair, maintenance, or removal from the laboratory.

8. Incidents that may result in exposure to infectious materials must be immediately evaluated and treated according to procedures described in the laboratory biosafety manual. All such incidents must be reported to the laboratory supervisor. Medical evaluation, surveillance, and treatment should be provided and appropriate records maintained.

9. Animal and plants not associated with the work being performed must not be permitted in the laboratory.

10. All procedures involving the manipulation of infectious materials that may generate an aerosol should be conducted within a BSC or other physical containment devices.

C. Safety Equipment (Primary Barriers and Personal Protective Equipment)

1. Properly maintained BSCs, other appropriate personal protective equipment, or other physical containment devices must be used whenever:
   a. Procedures with a potential for creating infectious aerosols or splashes are conducted. These may include pipetting, centrifuging, grinding, blending, shaking, mixing, sonicating, opening containers of infectious materials, inoculating animals intranasally, and harvesting infected tissues from animals or eggs.
   b. High concentrations or large volumes of infectious agents are used. Such materials may be centrifuged in the open laboratory using sealed rotor heads or centrifuge safety cups.

2. Protective laboratory coats, gowns, smocks, or uniforms designated for laboratory use must be worn while working with hazardous materials. Remove protective clothing before leaving for non-laboratory areas, e.g., cafeteria, library, and administrative offices). Dispose of protective clothing appropriately, or deposit it for laundering by the institution. It is recommended that laboratory clothing not be taken home.

3. Eye and face protection (goggles, mask, face shield or other splatter guard) is used for anticipated splashes or sprays of infectious or other hazardous materials when the microorganisms must be handled outside the BSC or containment device. Eye and face protection must be disposed of with other contaminated laboratory waste or decontaminated before reuse. Persons who wear contact lenses in laboratories should also wear eye protection.

4. Gloves must be worn to protect hands from exposure to hazardous materials. Glove selection should be based on an appropriate risk assessment. Alternatives to latex gloves should be available. Gloves must not be worn outside the laboratory. In addition, BSL-2 laboratory workers should:
a. Change gloves when contaminated, glove integrity is compromised, or when otherwise necessary.

b. Remove gloves and wash hands when work with hazardous materials has been completed and before leaving the laboratory.

c. Do not wash or reuse disposable gloves. Dispose of used gloves with other contaminated laboratory waste. Hand washing protocols must be rigorously followed.

5. Eye, face and respiratory protection should be used in rooms containing infected animals as determined by the risk assessment.

D. Laboratory Facilities (Secondary Barriers)

1. Laboratory doors should be self-closing and have locks in accordance with the institutional policies.

2. Laboratories must have a sink for hand washing. The sink may be manually, hands-free, or automatically operated. It should be located near the exit door.

3. The laboratory should be designed so that it can be easily cleaned and decontaminated. Carpets and rugs in laboratories are not permitted.

4. Laboratory furniture must be capable of supporting anticipated loads and uses. Spaces between benches, cabinets, and equipment should be accessible for cleaning.

   a. Bench tops must be impervious to water and resistant to heat, organic solvents, acids, alkalis, and other chemicals.

   b. Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant.

5. Laboratory windows that open to the exterior are not recommended. However, if a laboratory does have windows that open to the exterior, they must be fitted with screens.

6. BSCs must be installed so that fluctuations of the room air supply and exhaust do not interfere with proper operations. BSCs should be located away from doors, windows that can be opened, heavily traveled laboratory areas, and other possible airflow disruptions.

7. Vacuum lines should be protected with liquid disinfectant traps.

8. An eyewash station must be readily available.

9. There are no specific requirements for ventilation systems. However, planning of new facilities should consider mechanical ventilation systems that provide an inward flow of air without recirculation to spaces outside of the laboratory.

10. HEPA filtered exhaust air from a Class II BSC can be safely recirculation back into the laboratory environment if the cabinet is tested and certified at least annually and operated according to manufacturer’s recommendations. BSCs can also be connected to the laboratory exhaust system by either a thimble (canopy) connection or directly exhausted
to the outside through a hard connection. Provisions to assure proper safety cabinet performance and air system operation must be verified.

11. A method for decontaminating all laboratory wastes should be available in the facility (e.g., autoclave, chemical disinfection, incineration, or other validated decontamination method).
APPENDIX C
INCIDENT REPORT FORM INSTRUCTIONS

Use the Incident Report Form to report campus incidents and employee work related injuries. These incidents may include, but are not limited to, slips and falls, laboratory events, needlestick injuries, and/or other incidents that may require medical assistance. This form should be completed and submitted as soon as possible following an incident, but no later than 24 hours following the event.

DIRECTIONS:

- Complete each section of the form as applicable, depending on whether the injured person falls into the Employee, Student or Other category.
- Answer all questions to the best of your ability.
- Provide the date and time of the occurrence and the date you completed this form.
- Use the Pull down Menu in the select boxes, as indicated. (e.g., Campus Location and Building Name)
- Provide the full proper name (e.g., name as printed on Driver’s license) of the individual involved in the incident.
  - NOTE: If there is more than one individual involved, a completed form is required for each individual.
- STUDENTS are required to provide their Banner ID # as well as their insurance carrier’s name.
- Individuals who are not employees or students are required to provide:
  - Occupation and name of employer.
  - Health insurance carrier.
  - Reason you are on campus.
- Provide a brief description of the incident and an indication of the body part affected by this incident.
- If the incident was a needlestick/sharp/bloodborne pathogens exposure event, check the YES box and provide specific information on the brand and device.
- If the incident was a needlestick/sharp/bloodborne pathogens exposure incident, you are also required to complete the Bloodborne Pathogens Report Form (attached to the incident form).
- Enter the name, phone number and home address of each person who witnessed the incident.
- The individual who is the subject of the Incident Report Form must sign at the bottom. By signing the form, you attest that the information provided is correct to the best of your knowledge.
- The signature of the employee’s supervisor, or university representative for non-employees, must be provided.
PLEASE NOTE: SIGNING THIS FORM IS NOT AN ADMISSION OF UNIVERSITY LIABILITY.

FINAL STEPS:

 ✓ Upon completion PRINT the form, sign, and SEND “original” to Risk Management and Insurance, 201 Mullica Hill Road Glassboro, NJ 08028.
 ✓ After Printing, save document to your desktop and email, as an attachment, to incident-reports@rowan.edu

This form can be found on the Rowan University website at http://www.rowan.edu/incidentform
## INCIDENT REPORT FORM

**Campus:** Choose an item.  
**Date of Incident:**  
**Time of Incident:**  
☐ AM  ☐ PM  
**Date Form Completed:**

| Person Involved (Last Name, First Name, Middle Initial) | Date of Hire: | Date of Birth: | Sex:  
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<th>Campus Address:</th>
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**Exact location of incident:** Choose an item.  
**Building Name and Address:** Choose an item

**Supervisor’s Name:**  
**Supervisor’s Phone Number:**

### EMPLOYEE

(Check One)  
☐ Full Time  
☐ Part Time  
☐ Student Worker

**Shift Hours (e.g.: 8am-4pm):**

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<th>Department</th>
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1. Was employee on duty? ☐ Yes ☐ No
2. Did individual require medical attention? ☐ Yes ☐ No
3. If YES to item #2, was individual transported to medical care? ☐ Yes ☐ No
4. If YES to item #2, was individual transported via:  
   ☐ Personal Vehicle ☐ Ambulance ☐ Other
5. Individual was transported to: ☐ Wellness Center ☐ E.R. ☐ Occ. Health ☐ Other
6. If YES to item #2, did the individual refuse medical care? ☐ Yes ☐ No
7. Was employee in his/her assigned area? ☐ Yes ☐ No
8. Did employee cease work due to incident ☐ Yes ☐ No
9. If YES to item #4, time work ceased? ☐ AM ☐ PM
10. If YES to item #4, date work ceased?
11. Is this a NEW injury? ☐ Yes ☐ No

### STUDENT

1. Banner ID #:  
2. Health Insurance carrier:

### OTHER

(Check One)  
☐ Vendor  
☐ Visitor  
☐ Volunteer  
☐ Other

1. Occupation/Employer:  
2. Health Insurance carrier:  
3. Reason for being on campus:

### INCIDENT FACTS

1. Description of incident (state all facts clearly using individual’s own words):
2. Body part affected/impacted:
3. Needlestick/Sharp/Bloodborne Pathogens Exposure Incident? ☐ Yes ☐ No  
   If YES, complete both pages of the Bloodborne Pathogens Potential Exposure Addendum Form
4. If the incident involved equipment or a medical device, provide the name of the manufacturer,  
   the name of the device/equipment and the serial number:

### WITNESSES

1. Witnesses:
   a. Name:  
   Address:  
   Home Phone Number:  
   b. Name:  
   Address:  
   Home Phone Number:  
   c. Name:  
   Home Phone Number:
<table>
<thead>
<tr>
<th>Address:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature of injured person</td>
<td>Signature of Employee’s Supervisor or University Representative for Non-Employees</td>
</tr>
<tr>
<td>By signing this form, the injured person certifies that the information provided is true to the best of their knowledge.</td>
<td>PLEASE NOTE: SIGNING THIS FORM IS NOT AN ADMISSION OF UNIVERSITY LIABILITY</td>
</tr>
<tr>
<td>Supervisor: Did you agree with employee’s verbal account of incident? ☐ Yes ☐ No</td>
<td></td>
</tr>
<tr>
<td>If NO explain:</td>
<td></td>
</tr>
</tbody>
</table>

*If you are required to complete the **Bloodborne Pathogens Potential Exposure Form**, please scroll down and complete the addendum.*
## BLOODBORNE PATHOGEN POTENTIAL EXPOSURE ADDENDUM

**Person Involved (Last Name, First Name, Middle Initial)**

**Banner ID #**

**Date of Incident:**

<table>
<thead>
<tr>
<th>Type of Incident:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Needlestick Injury</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Splash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bite</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharp Object Injury (Specify object):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Fluid/Tissue:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood/blood product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visibly bloody body fluid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentrated HIV</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other body fluids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What was the item that caused the injury, if applicable:

<table>
<thead>
<tr>
<th>Item</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>hollow bore needle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suture needle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syringe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scalpel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Needles size, if applicable:

Manufacturer of device causing the injury:

Model:

If device information is not known, provide the name and phone number of a person who could provide device information:

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Phone Number</th>
</tr>
</thead>
</table>

If the item causing the injury was a needle or sharp medical device, did it have a safety design or protective mechanism?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>N/A</th>
</tr>
</thead>
</table>

If Yes, type of safety device:

<table>
<thead>
<tr>
<th>Shielded</th>
<th>Retractable</th>
<th>Blunted needles</th>
<th>Other (specify):</th>
</tr>
</thead>
</table>

Was the protective mechanism activated:

<table>
<thead>
<tr>
<th>Yes, fully</th>
<th>Yes, partially</th>
<th>No</th>
<th>Don’t Know</th>
<th>N/A</th>
</tr>
</thead>
</table>

Did the exposure incident happen:

<table>
<thead>
<tr>
<th>Before activation</th>
<th>During activation</th>
<th>Don’t know</th>
<th>N/A</th>
</tr>
</thead>
</table>

If the item causing the injury was a needle or sharp medical device, did it have a safety design or protective mechanism?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
<th>N/A</th>
</tr>
</thead>
</table>

Was protective equipment used?

<table>
<thead>
<tr>
<th>Latex gloves</th>
<th>Face shield</th>
<th>Lab coat/gown</th>
<th>Goggles</th>
<th>Respirator</th>
<th>None</th>
<th>Other (specify):</th>
</tr>
</thead>
</table>

Where did the injury take place?

<table>
<thead>
<tr>
<th>Autopsy/Pathology</th>
<th>Clinical Laboratory</th>
<th>Dialysis Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Medical Services</td>
<td>Emergency Room</td>
<td>ICU/CCU</td>
</tr>
<tr>
<td>Outpatient Clinic</td>
<td>Operating Room</td>
<td>Patient Room</td>
</tr>
<tr>
<td>Service/Utility area</td>
<td>Other (specify):</td>
<td></td>
</tr>
</tbody>
</table>

Was the source patient known?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
</table>

The source patient was known positive for (check all that apply):

<table>
<thead>
<tr>
<th>HBV</th>
<th>HCV</th>
<th>HIV</th>
<th>Other (specify):</th>
<th>None of the above</th>
</tr>
</thead>
</table>

Was the injured worker the original user of the sharp item?
For what purpose was the sharp item originally used:

- [ ] Cutting
- [ ] Drilling
- [ ] Electrocautery
- [ ] Fingerstick/Heel Stick
- [ ] Heparin or saline flush
- [ ] Injection (IM, Subcutaneous, or other injection through the skin)
- [ ] Other injection into injection site or IV Port
- [ ] Suturing
- [ ] To connect IV line (Intermittent IV/Piggyback/IV infusion/Other IV line connection)
- [ ] To place arterial/central line
  - [ ] Direct Stick
  - [ ] Draw from line
  - [ ] To draw venous blood sample
  - [ ] To obtain body fluid or tissue sample (Urine/amniotic fluid/biopsy)
- [ ] To place an arterial or central line
- [ ] To start IV or Set up Heparin lock
- [ ] Unknown/Not applicable
- [ ] Other (specify):

Describe the exposure incident:

How does the exposed person think this incident could have been prevented:

Was the injury (check one):

- [ ] Superficial (little or no bleeding)
- [ ] Moderate (skin punctured, some bleeding)
- [ ] Severe (deep stick/cut or profuse bleeding)
- [ ] Mucous membrane contact
- [ ] Skin contact only

Write the number (#) of the location of the injury (see picture to below):
APPENDIX D

CLEANING SCHEDULE

<table>
<thead>
<tr>
<th>Area (Bench top, centrifuge, safety cabinet)</th>
<th>Scheduled Cleaning Times*</th>
<th>Cleaners &amp; Disinfectants Used</th>
<th>Specific Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>completion of procedures, after overt contamination, end of work shift, if needed and:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>completion of procedures, after overt contamination, end of work shift, if needed and:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>completion of procedures, after overt contamination, end of work shift, if needed and:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>completion of procedures, after overt contamination, end of work shift, if needed and:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: A list of approved sterilants and disinfectants* can be found at the EPA website: [http://www.epa.gov/oppad001/chemregindex.htm](http://www.epa.gov/oppad001/chemregindex.htm)

* Approved refers to a manufacturer’s right to use terms such as “disinfectant”, “tuberculocidal”, “sporicidal”, etc. on the product label. It is based on demonstrated antimicrobial activity in specified testing protocols. In addition, a 10% solution of household bleach, prepared fresh weekly, will provide effective decontamination for routine housekeeping and routine spill response.
**APPENDIX E**

**OSHA FACT SHEET**

**Hepatitis B Vaccination Protection**

Hepatitis B virus (HBV) is a pathogenic microorganism that can cause potentially life-threatening disease in humans. HBV infection is transmitted through exposure to blood and other potentially infectious materials (OPIM), as defined in the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030.

<table>
<thead>
<tr>
<th>Any workers who have reasonably anticipated contact with blood or OPIM during performance of their jobs are considered to have occupational exposure and to be at risk of being infected. Workers infected with HBV face a risk for liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer. A small percentage of adults who get hepatitis B never fully recover and remain chronically infected. In addition, infected individuals can spread the virus to others through contact with their blood and other body fluids.</th>
</tr>
</thead>
<tbody>
<tr>
<td>An employer must develop an exposure control plan and implement use of universal precautions and control measures, such as engineering controls, work practice controls, and personal protective equipment to protect all workers with occupational exposure. In addition, employers must make hepatitis B vaccination available to these workers. Hepatitis B vaccination is recognized as an effective defense against HBV infection.</td>
</tr>
<tr>
<td>HBV Vaccination</td>
</tr>
<tr>
<td>The standard requires employers to offer the vaccination series to all workers who have occupational exposure. Examples of workers who may have occupational exposure include, but are not limited to, healthcare workers, emergency responders, morticians, first-aid personnel, correctional officers and laundry workers in hospitals and commercial laundries. Institutions. The vaccine and vaccination must be offered at no cost to the worker and at a reasonable time and place. The hepatitis B vaccination is a non-infectious, vaccine prepared from recombinant yeast cultures, rather than human blood or plasma. There is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine.</td>
</tr>
<tr>
<td>The vaccine must be administered according to the recommendations of the U.S. Public Health Service (USPHS) current at the time the procedure takes place. To ensure immunity, it is important for individuals to complete the entire course of vaccination contained in the USPHS recommendations. The great majority of those vaccinated will develop immunity to the hepatitis B virus. The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although workers may desire to have their blood tested for antibodies to see if vaccination is needed, employers cannot make such screening a condition of receiving vaccination and employers are not required to provide prescreening.</td>
</tr>
<tr>
<td>Employers must ensure that all occupationally exposed workers are trained about the vaccine and vaccination, including efficacy, safety, method of administration, and the benefits of vaccination.</td>
</tr>
</tbody>
</table>
that service healthcare or public safety
They also must be informed that the vaccine and vaccination are offered at no cost to the worker. The vaccination must be offered after the worker is trained and within 10 days of initial assignment to a job where there is occupational exposure, unless the worker has previously received the vaccine series, antibody testing has revealed that the worker is immune, or the vaccine is contra-indicated for medical reasons. The employer must obtain a written opinion from the licensed healthcare professional within 15 days of the completion of the evaluation for vaccination. This written opinion is limited to whether hepatitis B vaccination is indicated for the worker and if the worker has received the vaccination.

**Declining the Vaccination**
Employers must ensure that workers who decline vaccination sign a declination form. The purpose of this is to encourage greater participation in the vaccination program by stating that a worker declining the vaccination remains at risk of acquiring hepatitis B. The form also states that if a worker initially declines to receive the vaccine, but at a later date decides to accept it, the employer is required to make it available, at no cost, provided the worker is still occupationally exposed.

**Additional Information**
For more information, go to OSHA’s Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at:

To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office under the “U.S. Department of Labor” listing in your phone book or call us toll free at (800) 321-OSHA (6742).

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request.

The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It’s confidential.
Occupational Safety and Health Administration
www.osha.gov
1-800-321-6742
OSHA FACT SHEET

Protecting Yourself from Sharps

Sharps are objects that can penetrate a worker’s skin, such as needles, scalpels, broken glass, capillary tubes and the exposed ends of dental wires. If blood or other potentially infectious materials (OPIM), as defined in the OSHA Bloodborne Pathogens standard (29 CFR 1910.1030), are present or may be present on the sharp, it is a contaminated sharp and appropriate personal protective equipment must be worn.

A needlestick or a cut from a contaminated sharp can result in a worker being infected with human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and other bloodborne pathogens. The standard specifies measures to reduce these types of injuries and the risk of infection. Careful handling of contaminated sharps can prevent injury and reduce the risk of infection. Employers must ensure that workers follow these work practices to decrease the workers’ chances of contracting bloodborne diseases.

Safer Medical Devices
Employers are required to consider and use safer medical devices, wherever possible. These devices include those that are needleless or have built-in protection to guard workers against contact with the contaminated sharp. In addition, employers must ask non-managerial patient care workers who could be exposed to contaminated sharps injuries for their input in identifying, evaluating and selecting effective work practice and engineering controls, including safer medical devices. The employer must document consideration and implementation of these devices, and the solicitation of worker input, in the Exposure Control Plan.

Prompt Disposal
Employers must also ensure that contaminated sharps are disposed of in sharps disposal containers immediately or as soon as feasible after use. Sharps disposal containers must be feasible to the area where sharps will be used. In some cases, they may be placed on carts to prevent patients, such as psychiatric patients or children, from accessing the sharps. Containers also must be available wherever sharps may be found, such as in laundries. Contaminated sharps must never be sheared or broken. Recapping, bending, or removing needles is permissible only if there is no feasible alternative or if such actions are required for a specific medical or dental procedure. If recapping, bending, or removal is necessary, employers must ensure that workers use either a mechanical device or a one-handed technique. The cap must not be held in one hand while guiding the sharp into it or placing it over the sharp. A one handed "scoop" technique uses the needle itself to pick up the cap, and then the cap is pushed against a hard surface to ensure a tight fit onto the device. Also, the cap may be held with tongs or forceps and placed over the needle. Contaminated broken glass must not be picked up by hand, but must be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

Sharps Containers
Containers for contaminated sharps must be puncture-resistant. The sides and the bottom must be leakproof. They must be appropriately labeled or color-coded red to warn everyone that the contents are hazardous. Containers for disposable sharps must be closable (that is, have a lid, flap, door, or other means of closing
readily accessible and located as close as keep the sharps and any liquids from spilling out of the container. The containers must be replaced routinely and not be overfilled, which can increase the risk of needlesticks or cuts. Sharps disposal containers that are reusable must not be opened, emptied, or cleaned manually or in any other manner that would expose workers to the risk of sharps injury. Employers also must ensure that reusable sharps that are contaminated are not stored or processed in a manner that requires workers to reach by hand into the containers where these sharps have been placed.

Handling Containers
Before sharps disposal containers are removed or replaced, they must be closed to prevent spilling the contents. If there is a chance of leakage from the disposal container, the employer must ensure the container), and they must be kept upright to that it is placed in a secondary container that is closable, appropriately labeled or color-coded red, and constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping.

Additional Information
For more information, go to OSHA’s Bloodborne Pathogens and Needlestick Prevention Safety and Health Topics web page at: https://www.osha.gov/SLTC/bloodborneopathogens/index.html.

To file a complaint by phone, report an emergency, or get OSHA advice, assistance, or products, contact your nearest OSHA office under the “U.S. Department of Labor” listing in your phone book or call us toll free at (800) 321–OSHA (6742).

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Occupational Safety and Health Administration
www.osha.gov
1-800-321-6742
APPENDIX F

HEPATITIS B VACCINATION DECLINATION WAIVER

I understand that due to my occupational exposure to blood or other infectious materials that I may be at risk of acquiring Hepatitis B virus infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine 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 potentially infectious materials and I want the Hepatitis B vaccine, I can receive the vaccination series as no charge to me.

Print Name: _____

Signature: ____________________________________________________

Title: _____

Date: _____

Department: _____

Location: _____
APPENDIX G

Safety Feature Evaluation Form
SAFETY SYRINGES

DATE: [___]
DEPARTMENT: [___]
LABORATORY: [___]
PI NAME: [___]
PRODUCT NAME: [___]
NUMBER OF TIMES USED: [___]

Circle the most appropriate answer for each question. Not applicable (N/A) may be used if the question does not apply to this particular product.

DURING USE:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The safety feature can be activated using a one-handed technique.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The safety feature does not obstruct vision of the tip of the sharp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Use of this product requires you to use the safety feature.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>This product does not require more time to use than a non safety device.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.</td>
<td>The safety feature works well with a wide variety of hand sizes.</td>
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</tr>
<tr>
<td>6.</td>
<td>The device is easy to handle while wearing gloves.</td>
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</tr>
<tr>
<td>7.</td>
<td>This device does not interfere with uses that do not require a needle.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>This device offers a good view of any aspirated fluid.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>This device will work with all required syringe and needle sizes.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>This device provides a better alternative to traditional recapping.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AFTER USE:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>There is a clear and unmistakable change (audible or visible) that occurs when the safety feature is activated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>The safety feature operates reliably.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>The exposed sharp is permanently blunted or covered after use and prior to disposal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>The device is no more difficult to process after use than non safety devices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TRAINING:

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>The user does not need extensive training for correct operation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>The design of the device suggests proper use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>It is not easy to skip a crucial step in proper use of the device.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any questions, please contact EHS.
Appendix H

Resources

United Stated Department of Labor, Occupational Safety & Health Administration
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