# Villanova University
Department of Environmental Health and Safety
Policy and Procedure Manual

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Appendix A   Definitions

Appendix B   Exposure Incident Investigation Form

Appendix C   Consent Form for Hepatitis B Vaccination

Appendix D   Refusal Form for Hepatitis B Vaccination

Appendix E   Exposed Individual’s Consent or Refusal

Appendix F   Source Individual’s Consent or Refusal
I. Purpose:

The purpose of this Bloodborne Pathogens Exposure Control Plan is to protect the health and safety of all faculty, students and employees who can reasonably be expected, as the result of performing their job duties, to be exposed to blood or other potentially infectious materials and to comply with the Occupational Safety and Health Administration’s Bloodborne Pathogens Standard. Definition of terms relating to this Exposure Control Plan are listed in Appendix A.

II. Scope

This plan applies to all areas of employment at Villanova University where there may be an occupational exposure to blood or other infectious material including the Hepatitis B Virus (HBV) and the Human Immunodeficiency Virus (HIV).

III. References:

Occupational Safety and Health Administration (OSHA), 29 CFR 1910.1030.

IV. RESPONSIBILITY FOR COMPLIANCE

A. Department Chairs

The Department Chairperson shall insure that all activities conducted in his / her area of responsibility are in accordance with this Exposure Control Plan. Further, the Chairperson shall require research involving HIV and / or HBV to be subject to approval of the Environmental Safety Office and a Bio-Safety Committee.

B. Director of Environmental Health and Safety

The Director of Environmental Health and Safety shall provide written guidelines for interpretation and implementation of this Plan to control and minimize actual or potential occupational exposures defined herein.
C. Laboratory Supervisor / Researcher Directors

Laboratory Supervisors and/or Researcher Directors shall identify potential occupational exposures to bloodborne pathogens, HBV, HIV, and other potential infections materials as defined in this Plan. He / she must also develop written procedures specific to the activities in his/her area following the guidelines outlined in this document.

D. Affected Employees

All affected employees shall follow universal precautions, attend scheduled training sessions and properly dispose of bio-hazardous waste. They must also report all exposure incidents to their supervisor and comply with the work practices detailed in this Plan.

V. EXPOSURE DETERMINATION

Villanova University will determine the employees who can reasonably be expected to be exposed to blood or other body fluids containing blood in the course of their work. University staff fall into one of the three categories listed below:

<table>
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<th>Job Classification</th>
<th>Task</th>
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<tr>
<td><strong>Category I (Routine exposure)</strong></td>
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<td>• Physicians and Nurses</td>
<td>In-patient medical care &amp; observation; phlebotomy.</td>
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<td>• Athletic Trainers</td>
<td>Delivery of physical treatment / therapy; care to student-athletes.</td>
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<tr>
<td>• V.E.M.S.</td>
<td>Delivery of CPR and first aid as required.</td>
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Job Classification

Category II (Possible exposure)
- Custodians
  Routine cleaning of dorms, office areas, academic buildings, dining halls, and sports facilities. Responding to emergency situations involving potentially infectious material.
- St. Thomas Monastery Housekeeping Staff
  Handling and cleaning laundry possibly containing blood or other potentially infectious material.
- Public Safety Employees
  First aid rendered by staff trained as emergency responders.
- Facilities Mgmt Employees
  Routine maintenance and repair in laboratories, dormitories and the Health Services building.
- Biology, Chemistry and Psychology as well as some Engineering Staff
  Work with materials such as, but not limited to, small animals and animal tissue, bacteria, viruses and DNA.
- Lifeguards / Coaches
  Response to unanticipated injury or illnesses to students or student-athletes.

Category III
- All others
  No task involving an exposure to blood, or OPIM.

VI. METHOD OF COMPLIANCE

The following methods of compliance will be incorporated into this Exposure Control Plan. The University will determine the appropriate specific guidelines for cleaning, decontamination and waste procedures.

A. Universal Precautions

Universal precautions will be used in order to prevent contact with blood or other potentially infectious materials (OPIM). All blood or other potentially contaminated body fluids will be considered to be infectious. Under circumstances in which differentiation among body fluid types is difficult or impossible, all body fluids will be considered potentially infectious materials.
B. Engineering and Work Practice Controls

Engineering and work practice controls are designed to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

1. Access to laboratories must be restricted and the entrance must be posted with the Universal Biohazard sign listing any infectious agents in use.

2. Only trained, informed and approved personnel may enter to conduct routine work. Cleaning and maintenance service personnel must have prior permission to enter the area and their activities must be monitored.

3. Bio-safety cabinets, glove boxes and other engineering controls should be used to reduce the researcher’s exposure. If there is a potential for creation of aerosols, a class 1 or 2 Bio-safety Cabinet is required. Cabinets and fume hoods must be certified on an annual basis, properly cleaned, uncluttered and airflow vents should never be blocked. The engineering controls shall be examined and maintained on a routine basis and if necessary, replaced.

4. The laboratory or work surfaces must be disinfected daily in areas where infectious agents or materials are used and the floors mopped regularly with disinfectant.

5. Needles and syringes will not be sheared, bent, broken, recapped or resheathed by hand. Never attempt to resheath any needle used with bio-hazardous material. Do not remove needles from disposable syringes. All syringes, needles and sharps must be discarded in a durable puncture resistant container.

6. To protect work surfaces, use plastic backed absorbent paper.

7. Eating, drinking, smoking or any hand-to-mouth, eye or other mucous membrane contact activities are prohibited.

8. Food or drink shall not be stored in any refrigerators, freezers, or cabinets where blood or other potentially infectious materials are stored or in other areas of possible contamination.

9. Specimens of blood and other potentially infectious materials must be placed in a closable, leak proof container and properly labeled.
10. All bio-hazardous wastes, contaminated lab wear and lab coats must be autoclaved. When contaminated materials are removed by service personnel for autoclaving and decontaminated, they must be placed in appropriate autoclave tub and closed. Lab tubs should be covered when not in use. Containers for the removal of bio-hazardous waste must be properly sealed with tape.

11. Personnel must be trained to handle a spill without leaving the laboratory.

12. Personnel must be knowledgeable about the basic infectious qualities and disease symptoms of the agents of bio-hazardous materials present in the workplace and in bio-safety procedures. They must be informed of their designated category level pertaining to bloodborne pathogens and what it means. They must notify their supervisor of any unexplained illnesses and of any accidental exposures.

13. Hand washing facilities are conveniently located in all laboratories and procedure rooms. Where hand-washing facilities are not available, antiseptic towelettes will be used, then the hands must be washed with soap and running water as soon as possible.

14. Equipment which has been contaminated with blood or other potentially infectious material shall be decontaminated as necessary.

C. Personnel Practices

1. Personnel who handle bio-hazardous material must wear a laboratory coat and gloves upon entry into the laboratory. Always wear the protective equipment required for the specific procedure. The laboratory coat must remain in the laboratory. Surgical gloves, lab coat, safety glasses and a surgical mask must be worn when handling blood or other potentially infectious fluids. In some cases, a face shield may be used in place of safety glasses.

2. Regular used of gloves is required in delivering injections, blood, CBC / finger stick collection and other related procedures where it is reasonable to anticipate that the individual might expect to contact infectious materials (e.g., non-intact skin, body fluids, etc.). It is not possible to visually detect potentially contamination on gloves; thus glove changes are required between procedures.
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3. NIOSH approved masks or respirators, goggles and face shield are required for aerosol generating activities.

4. Sandals and opened toed shoes shall not be worn when handling potentially infectious materials.

5. Where there is a potential for spattering of blood and infectious materials, fluid proof gowns, hoods and shoe covers should be worn.

6. Mouth pipetting/suction of blood or other potentially infectious material is prohibited at Villanova University.

7. Do not eat, take medication, drink, smoke, apply cosmetics or lip balm, brush teeth or handle contact lenses in work areas where blood or other potentially infectious materials are presented.

8. Do not handle broken glassware with your hands. Use a scoop, forceps or broom and dust pan that is confined to use in the area. Handle the clean up of articles and material as contaminated waste.

9. Hand washing is required before leaving the area.

10. Remove all personal protective equipment immediately upon leaving the work area and place it in a container for decontamination, storage, disposal or cleaning.

11. Wash hands immediately or as soon as possible after removal of gloves or other personal protective equipment and after hand contact with blood or potentially infectious material.

12. Caution must be taken to prevent used contaminated gloves from cross-contaminating lab surfaces, lab coats, doorknobs, wall switches, phones, lab notebooks or specimen forms. Remove contaminated gloves after each operation and dispose of them as bio-hazardous waste. Protect any open sores, cuts and skin abrasions or irritations on your hands, arms and face with bandages.
D. Personal Protective Equipment

1. Where the potential of occupational exposure remains after institution of engineering and work controls, personal protective equipment will be used. 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. The types of personal protective equipment (PPE) available to employees include:

- Gloves
- Face/eye protection
- Laboratory coats
- Shoe covers
- Dust masks
- NIOSH approved masks or respirators

2. Gloves must be worn when it can reasonably be anticipated that the employee may have hand contact with blood or other potentially infectious materials, and when handling or touching contaminated items or surfaces.

3. Disposable gloves will be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when the ability to function as a barrier is compromised. Disposable gloves will not be washed or decontaminated for re-use.

4. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives will be readily accessible to those employees who are allergic to the gloves normally provided.

5. Masks, in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, will 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 reasonably be anticipated, (i.e., custodian cleaning a clogged toilet, nurses or aides who are performing suctioning).
6. Appropriate protective clothing will be worn in all occupational exposure situations. The supervisor will determine the type and characteristics of the PPE depending upon the task, location, and degree of exposure anticipated.

7. The supervisor will ensure that appropriate personal protective equipment is readily accessible at the worksite.

8. All personal protective equipment will be removed prior to leaving the work area. When personal protective equipment is removed, the equipment will be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

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

10. Supervisors will ensure that their employees use the appropriate personal protective equipment.

E. Labeling

1. A Universal Biohazard warning label will be placed on all containers, refrigerators and freezers in which human blood, body fluids and tissue are stored or transported.

2. A bio-hazard warning label will be attached to all potentially infectious waste and sharp containers.

3. A biohazard warning label will be attached to containment equipment and instruments used to process or handle bio-hazardous materials.
F. Handling and Disposal of Biological Wastes

1. Waste from research or procedures involving blood, body fluids and tissue must not be placed in the regular trash. It must be segregated from other forms of trash, and placed in a red bio-hazard bag for disposal.

2. Place trash and disposables for autoclaving in an impervious autoclavable bag that is labeled with a bio-hazard-warning label which will include the name of the generator and the date. The waste will be autoclaved prior to disposal.

G. Waste for Offsite Incineration:

1. Syringes, needles and sharps must be discarded in a durable, puncture resistant, leak proof (on side and bottom), color coded red container that is labeled with a bio-hazard emblem.

2. Trash and disposable articles such as bandages must be placed in an impervious plastic bag with a bio-hazard warning label. Securely tie, tape and seal each bag. Place the bagged waste in a fiber container and seal with packing tape.

3. A vendor collects waste on a regular schedule. Bio-hazard waste containers (Red Bags) are located in the following departments / buildings:

   - Nursing- Driscoll Hall
   - Psychology- Tolentine Hall
   - Athletics- Jake Nevin Hall
   - Health Center- Health Services Building
   - Biology- Mendel Hall
   - Chemistry – Mendel Hall
   - Monastery- Health Care Center

Note: Consult EH&S Policy No. S6 for detailed information on infectious waste management.
H. Housekeeping

1. Each work area affected by this Exposure Plan must adhere to the methods for disinfecting based on the type of surface to be cleaned and the agent involved.

2. Work surfaces and equipment will be disinfected at the completion of the experiment or procedure involving blood or potentially infectious materials.

3. A disinfecting solution known to neutralize the infectious agent must be used to decontaminate the work area.

4. Reusable contaminated items shall be decontaminated prior to washing and/or reprocessing.

I. Response to an Accidental Spill or Release

1. Personnel must be prepared to contain and decontaminate a spill containing Bio-hazardous material. Wear the appropriate personal protective equipment.

2. If a surface is involved, a disinfecting solution known to neutralize the infectious agent must be used to decontaminate the effected area.

3. A spill kit containing absorbent material, gloves, biohazard bags and an appropriate proven disinfectant must be available in the work area.

4. Remove contaminated clothing and / or wash exposed area thoroughly with soap and water.

5. Report the incident to your supervisor and if necessary, seek medical attention immediately.

6. The supervisor will contact Public Safety to transport the employee to Bryn Mawr Hospital. Call ext. 4444.

VII. POST-EXPOSURE EVALUATION AND FOLLOW-UP

A. Response to an Exposure Incident

Following a report of an exposure incident, Villanova University will immediately make available to the exposed employee a confidential medical examination and follow-up, including at least the following elements:
1. Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred.

2. Identification and documentation of the source individual, if possible, unless Villanova University can establish that identification is infeasible or prohibited by state or local law.

3. An investigation shall be conducted by the exposed employee’s supervisor and an Exposure Incident Report (Appendix B) completed.
   a. The source individual’s blood will be tested as soon as feasible after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained Villanova University will 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.
   b. Results of the source individual’s testing will be made available to the exposed employee only after consent is obtained, and the employee will be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

4. The exposed employee’s blood will be collected as soon as feasible and tested after consent is obtained. If the employee consents to baseline blood collection, but does not consent at that time for HIV serological testing, the sample will 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 will be done as soon as feasible.

5. For post-exposure prophylaxis, Villanova University will follow recommendations established by the U.S. Public Health Service.

6. Counseling will be made available at no cost to employees and their families on the implications of testing and post-exposure prophylaxis;

7. An evaluation of any reported illnesses will be conducted.
B. Medical Evaluation

Villanova University will ensure that all medical evaluations and procedures, including prophylaxis, are made available at no cost and at a reasonable time and place to the employee. All medical evaluations and procedures will be conducted by or under the supervision of a licensed physician and laboratory tests will be conducted in accredited laboratories.

C. Information Provided to the Health Care Professional

Information provided to the health care professional who evaluates the employee will include:

1. A description of the employee’s duties as they relate to the exposure incident.

2. Documentation of the route of exposure and the circumstances under which the exposure occurred.

3. Results of the source individual’s blood testing, if consent was given and the results are available.

4. All medical records relevant to the appropriate treatment of the employee, including hepatitis B vaccination status.

D. Health Care Professional’s Responsibilities

Villanova University will obtain and provide the employee with a copy of the evaluating health care professional’s written opinion within 15 days of the completion of the evaluation.

1. The health care professional’s written opinion for hepatitis B vaccination will be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

2. The health care professional’s written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

   a. This employee has been informed of the results of the evaluation.
b. The employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation and or treatment.

3. All other findings or diagnoses will remain confidential and will not be included in the written report.

VIII. HEPATITIS B VACCINATION

A. The hepatitis B vaccine will be made available to all employees listed in category I and category II in Section V, Exposure Determination, of this Plan.

1. Villanova University will make the hepatitis B vaccination series available to all employees who have an occupational exposure after the employees have been given information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration and the benefits of being vaccinated. The vaccinations will be offered at no cost to the employee and at reasonable times.

2. The Director of Environmental Health and Safety will make the hepatitis B vaccination series available after the training and within 10 working days of initial assignment to all employees who have an occupational exposure.

3. The hepatitis B vaccination series will be made available to the employee at a reasonable time and place, and performed by or under the supervision of a licensed physician according to the most current recommendations of the U.S. Public Health Service.

4. If an employee initially declines the hepatitis B vaccination series, but at a later date while still covered under this Plan decides to accept the vaccination, Villanova University will make available the hepatitis B vaccine at that time.

5. The Director of Environmental Health and Safety will assure that employees who decline to accept the hepatitis B vaccine offered by Villanova University sign the declination statement established in this Exposure Control Plan.
6. If a routine booster dose(s) of the hepatitis B vaccine is recommended by the U.S. Public Health Service or other health care provided at a future date, the booster dose(s) will be made available at no charge to the employee.

7. Records regarding HBV vaccinations or declinations will be maintained by the Director of Environmental Health and Safety.

8. The Director of Environmental Health and Safety will ensure that the health care professional responsible for employee’s hepatitis B vaccination is provided with a copy of 29 CFR 1910.1030 and this Plan.

IX. INFORMATION AND TRAINING

1. Villanova University will ensure that all current and new employees with the potential for occupational exposure participate in an initial, and annual training program at no cost to employees.

2. Training will be provided at the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter.

3. Villanova University will provide additional training when changes, such as modifications of tasks or procedures, affect employee potential for occupational exposure. The additional training may be limited to addressing the new exposures created.

4. Only material appropriate in content and vocabulary to the educational level, literacy and language of employees will be used in the training.

5. The person conducting the training will be knowledgeable in the subject matter covered by the elements contained in the training program, as it relates to Villanova University.

X. RECORDKEEPING

A. Medical Records

1. Villanova University will establish and maintain an accurate medical record for each employee with an occupational exposure. This record will include:

   a. The name and social security number of the employee.
b. A copy of the employee’s hepatitis B vaccination record or declination form and any additional medical records relative to hepatitis B.

c. If exposure incident(s) have occurred, a copy of all results of examinations, medical testing and follow-up procedures.

d. If exposure incident(s) have occurred, a copy of the health care professional’s written opinion.

e. If exposure incident(s) have occurred, a copy of the information provided to the health care professional: i.e., exposure incident investigation form and the results of the source individual’s blood testing, if available and if consent has been obtained for release.

2. Villanova University will ensure that the employee’s medical records are kept confidential and are not disclosed or reported without the employee’s expressed written consent to any person within or outside of the University, except as required by law. These medical records will be kept separate from other personnel records.

3. These medical records will be maintained for the duration of employment plus 30 years.

B. Training Records

1. Training records will include:

a. The date(s) of the training session.

b. The contents or a summary of the training sessions.

c. The name(s) and qualifications of person(s) conducting the training.

d. The name and job titles of all persons attending the training session.

2. Training records will be maintained for 3 years from the date the training occurred.
C. Availability of Records

Villanova University will insure:

1. Employee training records required by this Plan will be provided upon request for examination and copying to employees and employee representatives.

2. Employee medical records required by this Plan will be provided upon request for examination and copying to the subject employee and to anyone having the written consent of the affected employee.

XI. EVALUATION AND REVIEW

A. The Director of Environmental Health and Safety will conduct an annual evaluation and review of the effectiveness of this Exposure Control Plan and will coordinate corrective action and update of the plan as required.
Appendix A

DEFINITIONS FOR THE PURPOSES OF THIS EXPOSURE CONTROL PLAN

Amniotic Fluid
The fluid surrounding the embryo in the mother's womb.

Biohazard Label
A label affixed to containers of regulated waste, refrigerators/freezers and other containers used to store, transport or ship blood and other potentially infectious materials. The label must be fluorescent orange-red in color with the biohazard symbol and the word biohazard on the lower part of the label.

Blood
Human blood, human blood components, and products made from human blood.

Bloodborne Pathogens
Pathogenic (disease producing) 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)

Cerebrospinal Fluid
A clear, colorless fluid surrounding the brain and spinal cord. It can be withdrawn by performing a spinal puncture.

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

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

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

Contaminated Sharp
Any contaminated object that can penetrate the skin including, but not limited to needles, scalpels, broken glass, capillary tubes, and the 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.
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| Revised: Oct. 2014  
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**Engineering Controls**
- Controls (i.e., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

**Exposure Control Plan**
- A written program developed and implemented by the employer which sets forth procedures, engineering controls, personal protective equipment, work practices and other methods that are capable of protecting employees from exposures to bloodborne pathogens, and meets the requirements spelled out by the OSHA Bloodborne Pathogens Standard.

**Exposure Determination**
- How and when occupational exposure occurs and which job classifications and/or individuals are at risk of exposure without regard to the use of personal protective equipment.

**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.

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

**HBV**
- Hepatitis B Virus.

**HIV**
- Human Immunodeficiency Virus.

**Licensed Health Care Professional**
- A person whose legally permitted scope and practice allows him or her to independently perform the activities required by paragraph (f) of the OSHA Standard, hepatitis B vaccination and post exposure evaluation and follow-up.

**Medical Consultation**
- A consultation which takes place between an employee and a licensed health care professional for the purpose of determining the employee's medical condition resulting from exposure to blood or other potentially infectious materials, as well as any further evaluation or treatment that is required.

**Mucus**
- A thick liquid secreted by glands, such as those lining the nasal passages, the stomach and intestines, the vagina, etc.
Mucous Membranes  A surface membrane composed of cells which secrete various forms of mucus, as in the lining of the respiratory tract and the gastrointestinal tract, etc.

Occupational Exposure  A 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.

OSHA  The Occupational Safety and Health Administration of the U.S. Department of Labor, the Federal agency with safety and health regulatory and enforcement authority.

Other Potentially Infectious Materials (OPIM)  (1) The following human body fluids: semen, vaginal secretions, menstrual blood, vomit, 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  Piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

Pathogen  A bacteria or virus capable of causing infection or disease.

Pericardial Fluid  Fluid from around the heart.

Pericardium  The sheath of tissue encasing the heart.

Peritoneal Fluid  The clear straw-colored serous fluid secreted by the cells of the peritoneum.

Peritoneum  The lining membrane of the abdominal (peritoneal) cavity. It is composed of a thin layer of cells.

Personal Protective Equipment  Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (i.e., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective
equipment. Personal protective equipment may include, but is not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection equipment, 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 membrane under nominal conditions of use and for the duration of time which the protective equipment is used.

**Pleural**
The membrane lining the chest cavity and covering the lungs. It is made up of a thin sheet of cells.

**Pleural Fluid**
Fluid from the pleural cavity.

**Prophylaxis**
The measures carried out to prevent diseases.

**Regulated Waste**
Liquid or semi-liquid 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. This includes laboratories where other potentially infectious materials are handled and used.

**Risk Category**
Risk Category is determined according to the following:

- **Category I.** Employees routinely handle or work with blood or OPIM.
- **Category II.** Employees occasionally handle or work with blood or OPIM.
- **Category III.** Employees never work with or around blood or OPIM.

**Serous Fluids**
Liquids of the body, similar to blood serum, which are in part secreted by serous membranes.
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<tr>
<th><strong>Source Individual</strong></th>
<th>Any individual, living or dead, whose blood or other potentially infectious materials may be a source of an occupational exposure to the employee.</th>
</tr>
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<tbody>
<tr>
<td><strong>Sterilize</strong></td>
<td>The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.</td>
</tr>
<tr>
<td><strong>Supervisor</strong></td>
<td>A faculty or staff member responsible for a work area in an instructional or research laboratory in which there exists a potential for exposure.</td>
</tr>
<tr>
<td><strong>Synovial Fluid</strong></td>
<td>The clear amber fluid usually present in small quantities in a joint of the body (i.e., knee, elbow).</td>
</tr>
<tr>
<td><strong>Universal Precautions</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Vascular</strong></td>
<td>Pertaining to or composed of blood vessels</td>
</tr>
<tr>
<td><strong>Work Practice Controls</strong></td>
<td>Controls that reduce the likelihood of exposure by altering the manner in which the task is performed.</td>
</tr>
</tbody>
</table>
Appendix B

EXPOSURE INCIDENT INVESTIGATION FORM

Date of Incident: ________________ Time of Incident: ________________

Location: _______________________________________________________

Person(s) Involved: _______________________________________________________________________________________

Potentially Infectious Materials Involved:

Type: ________________________ Source: _____________________________

Circumstances (what was occurring at the time of the incident): ________________

__________________________________________________________________________________________

__________________________________________________________________________________________

How was the incident caused: (accident, equipment malfunction, etc.) List any tool, machine, or equipment involved: _______________________________________________________________________________________

__________________________________________________________________________________________

Personal protective equipment being used at the time of the incident:

__________________________________________________________________________________________

__________________________________________________________________________________________

Actions taken (decontamination, clean-up, reporting, etc.) ______________________

__________________________________________________________________________________________

__________________________________________________________________________________________

Recommendations for avoiding repetition of incident: __________________________

__________________________________________________________________________________________

__________________________________________________________________________________________

Supervisor’s Name/Sig. ____________________________

Rb/10-14, 03-15
APPENDIX C

Consent Form for Hepatitis B Vaccination

Consent:
I understand that due to my occupational exposure (or possible exposure) to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given information on the hepatitis B vaccine, including its efficacy, safety, method of administration and the benefits of being vaccinated. I also understand that the vaccine and vaccination series will be offered free of charge.

I elect to receive this free immunization.

NAME: (Print): ________________________________ Date __________

SIGNATURE: ________________________________ Date __________
Decline:
I understand that due to my occupational exposure (or possible exposure) to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HPB) infection. I have been given information on the hepatitis B vaccine, including its efficacy, safety, method of administration and the benefits of being vaccinated. I also understand that the vaccine and vaccination series will be offered free of charge. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccination, I continue to be at possible 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 at no charge.

I decline to receive this free immunization.

NAME: (Print):_____________________________________________Date__________
SIGNATURE:_______________________________________________Date_________

Previously Vaccinated:
I understand that due to my occupational exposure (or possible exposure) to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HPB) infection. I have been given information on the hepatitis B vaccine, including its efficacy, safety, method of administration and the benefits of being vaccinated. However, by virtue of receiving the vaccination at a location other than Villanova University, I decline the vaccination at this time. I will obtain and provide to the Office of Environmental Health & Safety medical evidence of such vaccination.

I decline to receive this free immunization.

NAME: (Print):_____________________________________________Date__________
SIGNATURE:_______________________________________________Date_________
Appendix E
Exposed Individual’s Consent or Refusal
For HIV, HBV and HCV Infectivity Testing
Villanova University – Environmental Health & Safety Department

Note: Complete this form and submit to the Villanova University health care professional.

Exposed Individual’s Statement of Understanding
I understand that employers are required by law to attempt to obtain consent for HIV, HBV, and HCV infectivity testing each time an employee is exposed to the blood, or bodily fluids of any individual, or human cell lines. I understand that I have been accidentally exposed to blood, bodily fluids, or human cell lines and that testing for HIV, HBV and HCV infectivity is available. I am not required to give my consent, but if I do, my blood will be tested for these viruses at no expense to me.

I have been informed that the test to detect whether or not I have HIV antibodies is not completely reliable. This test can produce a false positive result when an HIV antibody is not present or a false negative result when an HIV antibody is present and follow-up may be required.

I understand that the results of these tests will be kept confidential and will only be released to medical personnel directly responsible for my care and treatment and to others only as required by law.

Please initial all boxes that apply and sign below:

<table>
<thead>
<tr>
<th>Infectivity Agent</th>
<th>Waive right to testing</th>
<th>Consent to blood collection and testing</th>
<th>Consent to blood collection, But Not Serological Testing.</th>
<th>Reserve right to Serological Testing within 90 days of date blood was collected.</th>
<th>I refuse consent to testing. The source mat’l. to which I was exposed was screened for HIV, HBV &amp;HBC. I am comfortable with the Certificate of Analysis provided by the University.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Certificate of Analysis provided by Villanova under Purchase Order Number __________________________ (if applicable).

Exposed individual’s printed name: ________________________________________________________________

Villanova University Department or Program: ______________________________________________________

Telephone number: ____________________________ Exposure Date: ____________________________

_________________________________________ Date

Signature of Exposed Individual
(or parent/guardian if individual is less than 18 years old)
Appendix F
Source Individual’s Consent or Refusal
For HIV, HBV and HCV Infectivity Testing
Villanova University – Environmental Health & Safety Department

Source Individual is the person whose blood or body fluids provided the source of this exposure.

Note: Complete this form and submit to the Villanova University health care professional.

Source Individual’s Statement of Understanding
I understand that employers are required by law to attempt to obtain consent for HIV, HBV, and HCV infectivity testing each time an employee is exposed to the blood or bodily fluids of any individual. I understand that a Villanova University employee or student intern has been accidently exposed to my blood or bodily fluids and that testing for HIV, HBV and HCV infectivity is requested. I am not required to give my consent, but if I do, my blood will be tested for these viruses at no expense to me.

I have been informed that the test to detect whether or not I have HIV antibodies is not completely reliable. This test can produce a false positive result when an HIV antibody is not present or a false negative result when an HIV antibody is present and follow-up may be required.

I understand that the results of these tests will be kept confidential and will only be released to medical personnel directly responsible for my care and treatment, to the exposed person for his or her medical benefit only and to others only as required by law.

Please initial all boxes that apply and sign below:

<table>
<thead>
<tr>
<th>Infectivity Agent</th>
<th>Waive right to testing</th>
<th>Consent right to testing only</th>
<th>Consent right to testing and make results available to exposed parties</th>
<th>Consent right to testing and Do Not make results available to exposed parties</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Certificate of Analysis provided by Villanova under Purchase Order Number ______________________ (if applicable).

Source individual’s printed name: __________________________________________________________

Villanova University Department or Program: ________________________________________________

Telephone number: ____________________________ Exposure Date: ____________________________

Signature of Source Individual
(or parent/guardian if individual is less than 18 years old)

Date