



Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

APPLICATION

New York University

PURPOSE

The purpose of the Bloodborne Pathogens Exposure Control Program is twofold: 1) to establish an Exposure Control Plan which will minimize or eliminate employee exposures to bloodborne pathogens, and 2) to comply with the OSHA standard, Bloodborne Pathogens (29 CFR 1910.1030).

POLICY AND GENERAL INFORMATION

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ISSUE DATE	REPLACES	ORIGINATOR	APPROVAL
10/03	8/03	ENVIRONMENTAL SERVICES	SR. VP OPERATIONS AND ADMINISTRATION

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1.0 INTRODUCTION

Hepatitis B virus (HBV) has long been recognized as a pathogen capable of causing serious illness and death. Because the virus is transmitted through blood and certain body fluids, individuals who handle these as part of their jobs are at increased risk of contracting hepatitis B. The human immunodeficiency virus (HIV) has been recognized more recently. The transmission of HIV is considerably less efficient than HBV. Thus, the individuals who must handle blood and other potentially infectious materials have a lower risk of HIV infection than HBV infection. However, the consequences of HIV infection are grave because HIV causes the fatal disease AIDS.

The seriousness and immediacy of the problem prompted the Occupational Safety and Health Administration to develop a mandatory standard to reduce occupational exposure to HIV, HBV, and other bloodborne pathogens. The standard requires employers to develop and implement a comprehensive Exposure Control Plan, which will minimize or eliminate employee exposures to bloodborne pathogens.

2.0 PROGRAM AVAILABILITY

Copies of this document are available upon request to all employees of New York University, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health, and the Director of the National Institute for Occupational Safety and Health.

3.0 SCOPE AND APPLICATION

This program applies to employees of New York University (NYU) and individuals who perform functions of employees such as NYU students, or volunteers who could potentially be expected to come into contact with blood or other potentially infectious materials (OPIM) including but not limited to saliva in dental procedures, regulated waste, blood and tissues of experimental animals.

The Exposure Control Plan, which is the major component of this program, contains baseline requirements for all work areas. There are additional requirements for "research laboratories". For the purposes of this program, a "research laboratory" is a laboratory where concentrated HIV or HBV is stored or used.

Individual departments may choose to develop their own bloodborne exposure control program in lieu of this program. However, the department developed program must be comparable to or exceed the requirements outlined in this program and those requirements outlined in the Occupational Safety and Health Administration's standard 29 CFR 1910.1030, *Occupational Exposure To Bloodborne Pathogens*. If a department chooses to develop their own program, it must be submitted to Environmental Services for approval.

4.0 PENALTIES FOR NON-COMPLIANCE

The Occupational Safety and Health Administration (OSHA) has the authority to impose penalties of up to \$70,000 per violation for violations of the Bloodborne pathogens Standard. OSHA also has the authority to propose a separate penalty for each instance of a violation of the standard.

5.0 **DEFINITIONS**

- 5.1 **Blood** means human blood, human blood components (plasma, platelets and serosanguineous fluids) and products (immune globulins, albumin and factors 8,9) made from human blood.
- 5.2 **Bloodborne pathogens** means pathogenic microorganisms present in human blood or OPIM that can infect and cause disease in individuals who are exposed to blood containing the pathogen. They include, but are not limited to, hepatitis B virus (HBV), human immunodeficiency virus (HIV), human T-lymphotropic virus Type I (HTLV-I), hepatitis C, malaria, syphilis, babesiosis, brucellosis, relapsing fever, arboviral infections, *Plasmodium sp.* and *Treponema pallidum*.
- 5.3 **Clinical Laboratory** means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.
- 5.4 **Contaminated** means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
- 5.5 **Contaminated Laundry** means laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.
- 5.6 **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.
- 5.7 **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.
- 5.8 **Engineering Controls** means items that isolate or remove the hazard of bloodborne pathogens from the workplace. Examples include safer medical devices, such as sharps with engineered sharp injury protection (SESIPs), needless systems as well as sharps disposal containers and self-sheathing needles.
- 5.9 **Exposure Incident** means a specific eye, mouth, other mucous membrane, non-intact skin such as cuts, abrasions, dermatitis or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.
- 5.10 **Exposure Profile** refers to a list of the job titles of employees who may be exposed to bloodborne pathogens, and the tasks during which exposure may occur.
- 5.11 **Hand Washing Facility** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.
- 5.12 **Licensed Healthcare Professional** is a person whose legally permitted scope of practice allows him/her to independently perform the activities included in Medical Surveillance.
- 5.13 **Needless Systems** means a device that does not use needles for the collection of bodily fluids or withdrawals of body fluids after initial venous or arterial access is established, the administration of

medicine or fluids or any other procedure involving the potential for occupational exposure to Bloodborne pathogens due to percutaneous injuries from contaminated sharps

- 5.14 **NIOSH** is an acronym for the National Institute for Occupational Safety and Health established under the U.S. Department of Health and Human Services.
- 5.15 **Occupational Exposure** means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (OPIM) that may result from the performance of an employee's duties.
- 5.16 **OSHA** is an acronym for the Occupational Safety and Health Administration.
- 5.17 **Other Potentially Infectious Materials (OPIM)** means:
- (1) 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
 - (4) blood, organs or other tissues from experimental animals infected with HIV or HBV.
- 5.18 **Parenteral** means piercing the skin barrier or mucous membranes through such events as needlesticks, human bites, cuts and abrasions.
- 5.19 **Personal Protective Equipment** is specialized clothing or equipment, such as gloves, surgical masks, lab coats, scrubs, booties, or goggles, worn by an employee for protection against a hazard.
- 5.20 **Regulated Medical Waste** refers to items regulated under federal, state or local regulations. This includes but is not limited to experimental animal carcasses, pathological waste, blood, tissue, and body fluids.
- 5.21 **Research Laboratory** refers to a laboratory that is engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not include clinical laboratories engaged solely in the analysis of blood, tissues, and organs.
- 5.22 **Sharps** means any object or device that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes and exposed ends of dental wire.
- 5.23 **Sharps with Engineered Sharps Injury Protections (SESIPs)** are defined as a non-needle sharp or needle device used to withdraw body fluids, accessing a vein or artery or administering medication or other fluids with a built-in safety feature mechanism that will effectively reduce the risk of an exposure incident. These include, but are not limited to the following devices: syringes with guards or sliding sheaths that shield the attached needle after use; needles that retract into a syringe after use; shielded or retracting catheters used to access the bloodstream for intravenous administration of medication or fluids; intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a needle that is housed in a protective covering, blunt suture needles; and plastic (instead of glass) capillary tubes.
- 5.24 **Source Individual** means any individual, living or dead, whose blood or other potentially infectious

materials may be a source of occupational exposure to employees. Examples include, but are not limited to, hospital and clinic patients, human remains, and individuals who donate or sell blood or blood components.

- 5.25 **Standard Precautions** is an approach to infection control. According to the concept of Standard Precautions, all human blood and other potentially infectious materials are treated as if known to be infectious for HIV, HBV or other Bloodborne pathogens. Standard Precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, or vomitus unless the material contains visible blood. Standard Precautions do not apply to saliva except in dental procedures or when it contains visible blood.
- 5.26 **Sterilize** means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.
- 5.27 **Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed. An example is the prohibition of recapping needles by a two-handed technique.

6.0 PROGRAM RESPONSIBILITIES

This section summarizes the responsibilities of key personnel involved in the development, implementation and evaluation of the Bloodborne Pathogens Exposure Control Program (The Program). The details of these responsibilities are found in Sections 7 and 8.

The Program covers University personnel in all departments, at all levels, who may come into contact with bloodborne pathogens. Because of this, the highest levels of administration for the University have overall responsibility for its successful implementation.

- 6.1 THE DEAN OF THE COLLEGE OF DENTISTRY / THE DEAN OF THE FACULTY OF ARTS AND SCIENCE / THE DEAN OF THE SCHOOL OF EDUCATION / THE DIRECTOR OF ATHLETICS, INTRAMURALS, AND RECREATION / THE VICE PRESIDENT FOR STUDENT AFFAIRS / THE VICE PRESIDENT FOR ADMINISTRATION / THE VICE PRESIDENT OF UNIVERSITY RELATIONS or their designees are responsible for:

- allocating the resources necessary to comply with The Program and pertinent regulations discussed therein;
- ensuring that Department Chairs, Department Heads and other responsible parties meet their responsibilities for implementing The Program;
- ensuring that job titles of employees who may be exposed to bloodborne pathogens, and the tasks which may result in exposure are reported to the Senior Director of Environmental Services [ES] or the Director of Infection Control for the Dental Center;
- ensuring that applicable employees attend the training sessions on exposure control conducted by ES, Infection Control, or receive equivalent training, as well as any additional training that may be required by The Program, before they are assigned to tasks where they have potential occupational exposure;
- ensuring that all employees, who may have potential occupational exposure to bloodborne pathogens, report to University Health Services for hepatitis B vaccination [or to sign the delineation form in Appendix C].
- ensuring appropriate protective equipment and clothing is readily available in each work area, and is used;

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- investigating and documenting incidents in which employees do not use appropriate protective clothing and equipment;
- ensuring sharps containers are easily accessible to personnel, and are located as close as is feasible to the immediate area where the devices are used;
- ensuring each Departmental subunit (for example, laboratory or FPO office) maintains a written schedule of any cleaning and decontamination that is not routinely provided by Building Services or the contracted cleaning service;
- periodically monitoring the effectiveness of the program within the department, and reporting any problems to either ES, Infection Control, or Department Chair;
- notifying the Benefits Department of any employee accidents which includes exposure to bloodborne pathogens; and
- coordinating with the Benefits Department / Personnel Office and the employee in arranging medical evaluations and consultations as outlined in section 7.14.

6.2 THE SENIOR DIRECTOR OF ENVIRONMENTAL SERVICES / THE DIRECTOR OF INFECTION CONTROL or their designees are responsible for:

- developing The Program;
- developing a training program, and working with the Departments to ensure its implementation;
- annually evaluating the effectiveness of The Program by 1) conducting audits, and 2) reviewing Employee Occupational Illness and Injury Reports and investigating relevant incidents (the latter is primarily the responsibility of the Director of Environmental Services);
- updating The Program as needed.

In addition, the Director of Environmental Services functions as a consultant on an as needed basis to resolve technical, purchasing and other issues. For example, the Director will provide assistance in the selection of protective clothing and equipment.

6.3 PERSONNEL DEPARTMENT / BENEFITS DEPARTMENT or his/her designees' responsibilities include, but are not limited to:

- providing assistance in arranging confidential medical evaluations, post-exposure follow-up and referrals; and
- ensuring that medical records are maintained in accordance with The Program.

6.4 EMPLOYEES WHO ARRANGE FOR THE SERVICES OF OUTSIDE CONTRACTORS are responsible for:

- assessing the potential for the contractor's employees to be exposed to bloodborne pathogens while working at NYU;
- ensuring that if there is a potential for exposure, the contractor has developed and implemented an Exposure Control Plan.

The Director of Environmental Services is available to assist in this process.

6.5 EMPLOYEES WHO WORK WITH BLOODBORNE PATHOGENS are responsible for:

- reading and complying with all applicable sections of the Exposure Control Plan (Section 7);
- attending training sessions;
- reporting to their supervisor or Department Head to receive hepatitis B vaccinations or sign a declination statement;

- notifying their supervisors of exposures and of any pertinent problems.

7.0 **EXPOSURE CONTROL PLAN**

7.1 OCCUPATIONAL EXPOSURE DETERMINATION

- 7.1.1 The Potential Exposure Reporting Forms (PERFs) [see Appendix A] are used to identify 1) the job titles of employees who may be exposed, and 2) the tasks where occupational exposure could occur.
- 7.1.2 Each Department Chair and Department Head ensures that PERFs are completed for all sections within the department and returned to the Director of Personnel and either the Director of Environmental Services or the Director of Infection Control.
- 7.1.3 The Directors of Environmental Services, Infection Control and Personnel use the PERFs to compile an Exposure Profile for the University. The Exposure Profile is kept in the offices of Environmental Services and Infection Control, depending on location.

7.2 STANDARD PRECAUTIONS

- 7.2.1 All employees, attendings, students and volunteers observe standard precautions. According to standard precautions, all human blood and certain human body fluids (see definition of Other Potentially Infectious Materials) are treated as if known to be infectious for HIV and HBV.
- 7.2.2 Under circumstances in which it is difficult or impossible to differentiate between body fluid types, all body fluids must be considered infectious.

7.3 HAND WASHING FACILITIES

- 7.3.1 Where feasible, NYU will ensure that hand washing facilities (running water, soap and single use towels or hot air dryers) are readily accessible in areas where employees may be exposed.
- 7.3.2 In areas where there are no hand washing facilities, NYU will provide either an antiseptic hand cleanser and paper towels or antiseptic towelettes.

7.4 GENERAL STRATEGY FOR CONTROLLING EXPOSURES

- 7.4.1 To the extent feasible, engineering and work practice controls are used to minimize or eliminate employee exposures.
- 7.4.2 If there is a potential for exposure after engineering and work practice controls have been implemented, protective clothing and equipment is used.

7.5 ENGINEERING CONTROLS

Engineering controls refer to technology and devices used to isolate or remove hazards from the worker. Examples include puncture resistant sharps containers, splash guards, biological safety cabinets (laminar flow hoods), mechanical pipetting devices, centrifuge safety cups, sealed centrifuge rotors, containment caging for animals, needleless IV systems and self-sheathing syringes.

7.5.1 Where feasible, Departments will use engineering controls as the primary means to protect employees.

7.5.2 Each Department will develop written procedures to ensure that engineering controls are examined and maintained or replaced on a regular schedule to ensure that they function effectively. Where applicable, this will be done in accordance with the manufacturer's guidelines. Records of inspection and maintenance will be kept within the department.

7.5.3 Sharps Containers

- Sharps containers will be 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.

7.5.4 Biological Safety Cabinets

- All biological safety cabinets will be certified when installed, whenever they are moved and at least annually.
- Arrangements for certification will be made through Environmental Services (x81450).

7.6 STANDARD WORK PRACTICE CONTROLS

7.6.1 Hand Washing

- Employees will wash their hands immediately or as soon as feasible after removing gloves or other personal protective equipment.
- When employees use an antiseptic hand cleanser and paper towels or antiseptic towelettes to clean their hands, they will also wash their hands with soap and running water as soon as feasible.

7.6.2 Needles And Sharps

- Needles and other sharps may only be used in situations where there are no alternatives.
- Contaminated needles and other contaminated sharps will not be bent, broken or sheared.
- Contaminated needles and other contaminated sharps will not be recapped or removed, unless there is no feasible alternative (for example, following an arterial blood gas stick).
- When needles must be recapped or removed, a one-handed technique or a mechanical device (for example, a needle re-capper) will be used.
- **Reusable Needles and Sharps:** Immediately or as soon as possible after use, contaminated reusable sharps will be placed in appropriate containers until they are reprocessed. The containers will be puncture-resistant, leak-proof on the sides and bottom, and properly labeled (see Section 7.8) or color-coded (red). Contaminated

needles and sharps will not be stored or processed in a manner that requires personnel to reach by hand into the containers that hold them.

7.6.3 Eating And Drinking

- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are not permitted in areas where there is a reasonable likelihood of exposure.

7.6.4 Food Storage

- Food and drink will not be placed in refrigerators, freezers, shelves, drawers, cabinets or on countertops/benchtops where blood or other potentially infectious materials are present.

7.6.5 Pipetting

- Pipetting or suctioning by mouth is not permitted
- Mechanical pipetting devices will be used.

7.6.6 Splash/Spray Prevention

- All procedures involving blood or other potentially infectious materials will be performed carefully to minimize splashing, spraying, spattering, and the generation of droplets.

7.6.7 Specimen Containers And Labeling

- **Containers:** Specimens of blood or other potentially infectious materials will be placed in containers that prevent leakage during collection, handling, processing, storage, transport or shipping.
- **Labeling:** Specimen containers will be either labeled (in accordance with Section 7.8) or color-coded (red).
- **Contaminated Specimen Containers:** Any specimen container that is contaminated on the outside will be placed in another container that meets the container and labeling requirements listed above.

7.6.8 Servicing/Shipping Equipment

- Equipment that may be contaminated (for example, blood gas analyzers, hemodialysis units, mechanical pipettors, suctioning devices, centrifuges and liquid chromatographs) will be examined and decontaminated prior to servicing or shipping, unless decontamination is not feasible.
- When decontamination is not feasible, a readily observable label (in accordance with Section 7.8) will be attached to the equipment. The label will indicate which portions of the equipment are contaminated. This information will be conveyed to all affected downstream personnel (such as employees and servicing/manufacture's representatives) so that appropriate precautions will be taken.

7.7 PROTECTIVE CLOTHING AND EQUIPMENT

Protective clothing and equipment is specialized clothing or equipment used to protect personnel from direct exposure to blood or other potentially infectious materials. It includes items such as gloves, gowns, scrubs, aprons, laboratory coats, head and foot coverings, face shields or surgical masks, eye protection, mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.

7.7.1 Provision

- Each department at NYU will provide employees with protective clothing and equipment.
- Protective clothing and equipment will be selected to ensure that under normal conditions of use it does not permit blood or other potentially infectious materials to pass through to the employee's work clothes, street clothes, undergarments, skin, eyes, mouth or other mucous membranes.
- Alternative gloves or glove liners will be provided for employees who are allergic to the gloves normally provided.

7.7.2 Accessibility

- Protective clothing and equipment in appropriate sizes will be readily available in all areas where employees may be exposed.

7.7.3 Use

- Employees will use protective clothing and equipment when performing tasks where it is reasonable to anticipate exposure to blood or other potentially infectious material.
- An employee may decline to use personal protective clothing/equipment under rare and extraordinary circumstances if it is the employee's professional judgement that its use would prevent the delivery of health care services or would pose an increased hazard to the safety of the individual or a co-worker. (When an individual makes this judgement, the employee's supervisor must investigate and document the circumstances in order to determine whether changes can be instituted to prevent future occurrences.)
- **Gloves:** Gloves will be worn when it can be anticipated that there will be hand contact with blood or other potentially infectious materials; when handling or touching contaminated items or surfaces; and during vascular access procedures.
 - Disposable (single-use) gloves, such as surgical or examination gloves, will be replaced between patient contacts, when contaminated, torn, or punctured, or when their ability to function as a barrier is compromised. They will not be washed or decontaminated for reuse.
 - Utility gloves, such as rubber gloves, may be decontaminated for re-use if they show no signs of deterioration. 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.
- **Surgical Masks, Eye Protection And Face Shields:** Surgical masks in combination with eye protection (for example, goggles or glasses with solid side shields) or chin-length face shields will be worn if eye, nose, or mouth contamination can be reasonably anticipated. In general, this equipment is required

whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated.

- **Other Protective Clothing:** As a rule, other protective clothing is required whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated. Protective clothing will prevent exposure to blood or other potentially infectious materials under normal conditions of use.
 - Protective clothing such as lab coats, clinic jackets, gowns, smocks, scrubs, uniforms, aprons or similar clothing will be worn if there is a potential for exposure. The type and characteristic will depend upon the task and degree of exposure anticipated.
 - Surgical caps or hoods and/or shoe covers or boots will be worn in instances when gross contamination can reasonably be anticipated (for example, during autopsies and orthopedic surgery).

7.7.4 Contaminated Garments

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

7.7.5 Removal

- All personal protective clothing and equipment will be removed before leaving the work area. Care will be taken so as not to contaminate surfaces or hands. The clothing/equipment will be placed in designated containers for storage, washing, decontamination or disposal. Personal protective clothing will not be worn in public corridors or other public access areas.

7.7.6 Repair/Replacement

- NYU will repair or replace all personal protective equipment as needed to maintain its effectiveness.

7.7.7 Cleaning/Laundrying

- NYU will provide for the cleaning or laundrying of reusable protective clothing, such as uniforms and lab coats. In general, arrangements for laundrying are made by the individual departments or at the College of Dentistry by the administration through contracting a private service.
- If the intended function of a uniform or lab coat is to act as protective clothing, home laundrying is not permitted, since it could lead to the migration of contaminants to the home.
- If a department allows employees to maintain and launder their own uniforms or lab coats, the uniforms and lab coats will be covered with protective clothing for tasks where it is reasonable to anticipate exposures to blood or other potentially infectious material.

7.7.8 Disposal

- Most disposable protective clothing and equipment can be discarded as regular

(non-infectious) trash.

- Items that are contaminated with soaked, caked or dripping blood or other potentially infectious material will be discarded as "red bag" waste (regulated medical waste).

7.8 WARNING LABELS / SIGNAGE

- 7.8.1 Containers of blood, blood components, or blood products that are labeled to indicate their contents (for example, blood) and have been released for transfusion or other clinical use do not require additional warning labels.
- 7.8.2 Warning labels or tags will be affixed to refrigerators, freezers, incubators and containers used to store or transport blood and other potentially infectious materials. (Refrigerator labels are available from Environmental Services (x81450).
- 7.8.3 Labels/tags will have a fluorescent orange or orange-red background, and contain the following lettering and symbol in black: the word "BIOHAZARD" and the universal biohazard symbol.
- 7.8.4 Labels/tags may be an integral part of the container or affixed as close as possible by string, wire, adhesive or other method that prevents their loss or unintentional removal.
- 7.8.5 Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempt from the labeling requirement.
- 7.8.6 Red bags or red containers are a substitute for labels on bags/containers of regulated medical (infectious) waste. (These bags are already labeled.)

7.9 HOUSEKEEPING [CLEANING AND DECONTAMINATION]

- 7.9.1 NYU will ensure that its facilities are maintained in a clean and sanitary manner.
- All facilities will be cleaned by building services or the contracted cleaning service in accordance with the written schedules.
 - Each Departmental subunit (for example, laboratory or office) will maintain a written schedule of any additional cleaning and decontamination that is not routinely provided.
- 7.9.2 All equipment, working surfaces and the general environment will be cleaned and decontaminated after contact with blood or other potentially infectious materials. An approved hospital disinfectant that is tuberculocidal (for example, a solution of 5.25% sodium hypochlorite (bleach) diluted between 1:10 with water) will be used.
- Contaminated work surfaces will be decontaminated after completion of procedures; when surfaces are overtly contaminated; immediately after any spill of blood or other potentially infectious material; and at the end of each work shift if the surface may have become contaminated since the last cleaning.
 - Protective coverings such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper may be used to cover equipment and environmental surfaces. These coverings will be removed and replaced as soon as feasible when they become overtly contaminated or at the end of each work shift if they may have

become contaminated during the shift. At the College of Dentistry these coverings will be removed between each patient.

- All reusable bins, pails, cans, and similar receptacles that may become contaminated will be inspected and decontaminated on a regularly scheduled basis. These receptacles will also be cleaned and decontaminated immediately or as soon as feasible upon visible contamination.
- Broken glassware that may be contaminated will not be picked up directly with the hands. It will be cleaned up using mechanical means, such as a brush and dust pan, tongs, cotton or forceps.

7.10 WASTE DISPOSAL

All contaminated waste will be discarded in accordance with NYU's Regulated Medical Waste Program (NYU Safety Policy #103). Contact Environmental Services (x81450) for details.

7.11 LAUNDRY

Contaminated laundry will be handled as little as possible, with a minimum of agitation.

- 7.11.1 Contaminated laundry will not be sorted or rinsed in the location of use (for example, in patient care areas).
- 7.11.2 Contaminated laundry will be placed in yellow bags at the location where it was used, and the bags closed prior to transport.
- 7.11.3 Whenever contaminated laundry is wet, it will be placed and transported in bags or containers that prevent soak-through or leakage.
- 7.11.4 Employees who have contact with contaminated laundry will wear protective gloves and other appropriate protective clothing.
- 7.11.5 The regulatory requirements for shipping contaminated laundry off-site are available from Environmental Services (x81450).

7.12 ACCIDENTS/EXPOSURES

- 7.12.1 Employees who are accidentally exposed should immediately treat the exposed area as follows:
 - For needlesticks or cuts, "milk" the area under running water (preferably warm) or a disinfectant (for example, dilute peroxide) to encourage bleeding.
 - In the case of skin contact, wash the area immediately with a disinfectant soap (for example, Hibiclens) and water.
 - For eye contact, flush the eyes with copious amounts of running water.
- 7.12.2 Following immediate treatment, as with any accident, the employee should report the incident to his/her supervisor / Department Head / Department Chair. Protection Services will be contacted to provide immediate transportation to the local hospital Emergency Room. Medical assistance will be arranged by the supervisors or designees of the various units of the University in coordination with the Benefits Department or Personnel Office for the Dental Center (See Section 7.14.4).

7.13 TRAINING

7.13.1 General

- All personnel who may be exposed to bloodborne pathogens must receive training. Training must be provided before initial assignment to tasks where exposure might occur, and annually (within one year of previous training) thereafter.
- When changes, such as modification of tasks or procedures, add new exposures, personnel will receive additional training. The additional training may be limited to addressing the new exposures.
- All training will be provided at no cost to the employee during working hours.
- Trainers will be knowledgeable in the subject matter as it relates to the workplace.
- The material used for training will be appropriate in content and vocabulary level to the literacy and language of the trainees.
- Trainees will be given the opportunity for interactive questions and answers with the person conducting the training session.
- The responsibility for developing training programs rests primarily with Environmental Services or Infection Control Officer and secondarily with the individual Departments as summarized below.

7.13.2 Training Program

- Environmental Services or Infection Control are responsible for developing a training program and providing training. Departments that prefer to develop and conduct their own training may do so, as long as the training meets the requirements of the OSHA standard.
- As a rule, training sessions will last approximately one (1) hour, or will be conducted using a self-learning packet with a post-training test. The subject matter will include:
 - An explanation of the OSHA Bloodborne Pathogens Standard;
 - A general explanation of the epidemiology and symptoms of HIV and HBV and other bloodborne pathogens;
 - An explanation of the modes of transmission of HIV and HBV and other bloodborne pathogens;
 - An explanation of NYU's Bloodborne Pathogens Exposure Control Program;
 - An explanation of appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
 - An explanation of the use and limitations of standard precautions, engineering controls, work practices and personal protective equipment;

 - Information on the types, proper use, location, removal, handling, decontamination and/or disposal of personal protective equipment;
 - An explanation of the basis for selection of personal protective equipment;
 - Information on the hepatitis B vaccine, including its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine is available at no cost to employees;
 - Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

- An explanation of the procedure to follow if an occupational exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
 - Information on post-exposure evaluation and follow-up;
 - An explanation of the color-coding and signs and labeling that are used to identify Biohazardous materials.
- The NYU-DC pamphlet: Facts About AIDS & Hepatitis B for Dental Center Personnel will be distributed to Dental Center employees during the training. Copies of the pamphlet are available at the Dental Center.

7.13.3 Departmental Training Programs

- Each Department is responsible for providing training in the specifics of departmental protocols, practices and procedures.
- Departments with laboratories are responsible for providing training in microbiological practices and techniques, as needed.
- Departments with "research laboratories" (see Section 5.0 for definition) will ensure that personnel who work in these laboratories:
 - Demonstrate proficiency in standard microbiological practices/techniques and in the practices/operations specific to the laboratory before being allowed to work with HIV or HBV; and
 - Are experienced in the handling of human pathogens or tissue cultures prior to working with HIV or HBV.
- A training program will be provided to employees who have no prior experience in handling human pathogens.
- Initial work activities will not include the handling of infectious agents.
- A progression of work activities will be assigned as techniques are learned and proficiency is developed.
- The employee may participate in work activities involving infectious agents only after proficiency has been demonstrated.

7.13.4 Training Records

- All training will be documented. Examples of forms used to document training is included in Appendix B.
- Copies of all training records will be forwarded to ES or Infection Control, where they will be maintained for a minimum of 3 years. Duplicate copies must be kept in the departmental file for an employee.

7.14 MEDICAL SURVEILLANCE

7.14.1 General

All medical evaluations and procedures will be made available at no cost to employees. All medical evaluations and consultations are to be arranged by the supervisors or designees of the various units of the University in coordination with the Benefits Department or Personnel Office for the Dental Center. The Personnel Department is to be sent all copies of medical records for University filing.

- All medical evaluations and procedures will be performed by or under the supervision of a licensed physician or other licensed healthcare professional.

- All medical evaluations and procedures will be provided according to the recommendations of the U.S. Public Health Service current at the time they take place.
- All laboratory tests will be conducted by an accredited laboratory, at no cost to the employee.
- All medical evaluations and procedures will be arranged by the supervisors or designees of the various units of the University in coordination with the Benefits Department or Personnel Office for the Dental Center with the following exception during off-hour emergencies:
 - During off-hours, after immediately treating the area, employees will contact Protection Services who will document the incident and provide transportation to the nearest emergency room.
 - Employees who have received emergency medical care will report to their supervisor, as soon as possible, to arrange for follow-up care.

7.14.2 Information Provided By NYU To The Physician/Healthcare Professional

- **Professionals Providing Hepatitis B Vaccination:** A copy of the Bloodborne Pathogens Standard (29 CFR 1910.1030) will be made available to all healthcare professionals responsible for hepatitis B vaccination.
- **Professionals Providing Post-exposure Evaluation:** The following information will be provided to healthcare professionals who evaluate employees following occupational exposure incidents:
 - A copy of the Bloodborne Pathogens Standard (29 CFR 1910.1030) and its Appendices.
 - A description of the exposed employee's duties as they relate to the exposure incident;
 - Documentation of the route(s) of exposure and circumstances under which exposure occurred; this information should be recorded on NYU's Notice of Accident in accordance with established procedures;
 - Results of the source individual's blood testing, if available;
 - Any University Medical Records (for example, records of vaccination status) relevant to the appropriate treatment of the employee; and
 - The requirement under the standard for the provider to supply the Personnel Department with a copy of any medical records resulting from evaluations, treatment, and/or consultations.

7.14.3 Hepatitis B Vaccination

- NYU will provide the hepatitis B vaccination series to covered employees at no cost.
- If employees want to be screened for antibodies to hepatitis B before being vaccinated, NYU will provide the necessary testing. Screening for antibodies to hepatitis B is not mandatory.
- During the pre-employment physical, NYU will offer HBV vaccination to all employees who may be exposed to blood or other potentially infectious materials.
- If in the course of employment an employee assumes responsibilities that introduce the potential for exposure, hepatitis vaccination will be made available within 10 working days. Each department is responsible for ensuring that employees are aware of this.

- Employees who do not want to be vaccinated will sign a declination statement (see Appendix C). A copy of this statement is to be kept by the Personnel Department in the employee's confidential medical file.
- If an employee initially declines HBV vaccination but at a later date decides to be vaccinated, NYU will provide the vaccination.
- NYU will provide HBV vaccination recipients with required routine booster dose(s) of hepatitis B vaccine, in accordance with the recommendations of the U.S. Public Health Service.

7.14.4 Post-Exposure Evaluation And Follow-up

- Employees who have any of the following exposures must report the incident to their supervisor:
 - Needle stick, cut, or other parenteral contact
 - Eye, mouth or other mucous membrane contact
 - Non-intact skin contact
 - Skin exposures involving a large amount of blood or prolonged contact with blood
- At the employee's request, NYU will immediately provide a confidential medical evaluation and follow-up. This will include the following:
 - Documentation of the route(s) of exposure and circumstances under which exposure occurred. This information will be recorded on NYU's Notice of Accident Report in accordance with established procedures.
 - Identification and documentation of the source individual, unless such identification is infeasible or prohibited by state or local law;
 - Testing of the source individual's blood as soon as feasible (after consent is obtained) in order to determine HBV, HCV and HIV infectivity. If consent is not obtained, NYU will document that legally required consent cannot be obtained.
 - Testing will not be done if it is known that the source individual is infected with HBV, HCV or HIV.
 - Exposed employee will not be given the results of HIV testing of the source Individual, as long as to do so is prohibited by New York State Law.
 - Collection and testing of the exposed employee's blood for HIV antibody, HbsAg, anti-HBsAg and liver function tests. Prior to testing for HIV infection, an employee will sign the NYS DOH Informed Consent to HIV Antibody Test form.
 - If an employee needs time to make a decision about HIV testing, the blood sample will be preserved for 90 days. If, within the 90 days the employee elects to have the sample tested, such testing will be done as soon as feasible.
 - Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service.
 - Counseling.
 - Medical evaluation of any reported illness that occurs post-exposure.

7.14.5 Healthcare Professional's Written Opinion

Within 15 days of the completion of a medical evaluation, the Personnel Department will ensure that a copy of the evaluating healthcare professional's written opinion is given to the

employee. The employee's copy of the written opinion must include the following information (all other findings or diagnoses must remain confidential).

- **Hepatitis B Vaccination:** The written opinion will state whether hepatitis B vaccination is indicated for the employee, and if the employee has received such vaccination.
- **Post-exposure Evaluation and Follow-up:** The written opinion will include a statement that the employee has been informed of the results of the evaluation, and has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

7.14.6 Medical Records

- Prior to providing medical service, the facility or physician will submit a copy of all related medical records to the Personnel Office for retention in the employee's confidential medical file. The facility or physician providing the medical service will incorporate the following information (as applicable) into the medical chart of each employee covered by this program:
 - A copy of the employee's hepatitis B vaccination records, including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.
 - Post-exposure evaluations
 - A description of an exposed employee's duties as they relate to an exposure incident.
 - Documentation of the route(s) of exposure and the circumstances under which exposure occurred.
 - Reference to the results of the source individual's blood testing if available.
 - A copy of all results of examinations, medical testing, and follow-up Procedures.
 - A copy of the healthcare professional's written opinion (See Section 7.14.5).
- Medical records required by this program will be kept confidential. They will not be disclosed or reported to any person within or outside of NYU except as required by The Program, or as required by law.
- All medical records required by The Program will be kept for the duration of employment plus 30 years.
- The Personnel Office will maintain a file of medical records for University employees.

7.15 HIV AND HBV RESEARCH LABORATORIES

In addition to the basic elements of the Exposure Control Plan, research laboratories must implement certain additional measures.

This section applies to laboratories and animal facilities that are working with the culture, production, concentration, experimentation, and manipulation of HIV or HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues or organs. Throughout this section, reference is made to other potentially infectious materials (OPIM). For a definition of OPIM, see Section 5.0.

- 7.15.1 Every HIV/HBV research laboratory will prepare or adopt a Biosafety Manual. The manual will be reviewed and updated at least annually. Personnel who work in HIV/HBV research labs will be advised of potential hazards and required to read as well as follow instructions on practices and procedures.
- 7.15.2 Each HIV/HBV research laboratory will have a facility for handwashing and an emergency eyewash readily available within the work area.
- 7.15.3 Only authorized personnel will be permitted in HIV/HBV research laboratories. The Principal Investigator [PI] is responsible for establishing written policies and procedures whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures are allowed to enter the work areas and animal rooms.
- 7.15.4 Warning signs will be posted on all access doors to work areas or containment modules when OPIM or infected animals are present. Signs are provided by Environmental Services (x81450).
- 7.15.5 All doors to these laboratories will be closed when work with HIV or HBV is in progress.
- 7.15.6 Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing will be used in the work areas and animal rooms. Disposable protective clothing will be used whenever possible. Reusable protective clothing worn in HIV/HBV laboratories will be autoclaved before laundering.
- 7.15.7 Hypodermic needles and syringes will be used only for injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (that is, the needle is integral to the syringe) will be used for the injection or aspiration of OPIM. Extreme caution will be used when handling needles and syringes. Needles will not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe will be promptly placed in a puncture-resistant container. Disposable needles will be discarded in accordance with the University's Infectious Waste Disposal Program. Reusable needles will be decontaminated before reuse.
- 7.15.8 Certified biological safety cabinets and other appropriate combinations of physical containment equipment (for example, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals) and personal protection (for example, face shields, surgical masks and special protective clothing) will be used for all activities involving OPIM. Work involving OPIM will not be conducted on an open bench.
- 7.15.9 Special care will be taken to avoid skin contact with OPIM. Gloves will be worn when handling infected animals and when making hand contact with OPIM is unavoidable.
- 7.15.10 Vacuum lines will be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency. This equipment will be checked routinely and maintained or replaced as necessary.
- 7.15.11 Each HIV/HBV lab will have access to an autoclave for the decontamination of waste.

7.15.12 Prior to disposal, all contaminated waste from work areas and animal rooms will be decontaminated by a method known to effectively destroy bloodborne pathogens. Autoclaving is the preferred method of decontamination.

7.15.13 Contaminated materials that are to be decontaminated at a site away from the work area will be placed in a durable, leak-proof, labeled (see Section 7.8) or color-coded (red) container that is closed before being removed from the work area.

7.15.14 All spills will be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with concentrated infectious materials.

7.16 SPECIAL PROTOCOLS

Each Department is responsible for developing any additional protocols needed to protect departmental employees from occupational exposure. The protocols should be submitted to Environmental Services or Infection Control for review.

7.17 ACCESS TO RECORDS

7.17.1 Training and medical records are available to OSHA and NIOSH for examination and copying.

7.17.2 Training records are available to employees, employee representatives, and OSHA and NIOSH in accordance with 29 CFR 1910.20.

7.17.3 Medical records are available for examination and copying to the subject employee, to anyone having written consent of the subject employee, and to OSHA and NIOSH in accordance with 29 CFR 1910.20.

8.0 **PROGRAM EVALUATION**

8.1 Each Department will review and evaluate the effectiveness of The Program within the department at least annually, and whenever necessary to reflect new or modified tasks and procedures as well as new or revised employee positions. If problems are identified or programmatic changes needed, Environmental Services or Infection Control must be notified.

8.2 The Director of Environmental Services or the Infection Control Officer is responsible for the following:

- Conducting unannounced audits to monitor employee compliance with The Program;
- Investigating all pertinent Employee Occupational Illness and Injury Reports; and
- Reviewing The Program annually and revising/updating it as needed.

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

APPENDIX A

NYU POTENTIAL EXPOSURE REPORTING FORMS

**POTENTIAL EXPOSURE REPORTING FORM
PART A**

UNIT: (College or School)

DEPT: (Name of Department)

SECTION: (Name of Section)

COMPLETED BY _____ DATE _____

PRINT NAME

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

Assisting in autopsy procedures		
Assisting in diagnostic procedures where there may be contact with blood or OPIM		
Assisting in procedures likely to generate splashing or aerosolization of blood or OPIM		
Assisting in (human) surgical procedures		
Assisting in surgery on animals infected with HIV/HBV		
Changing surgical dressings		
Cleaning spills of blood or OPIM		
Cleaning and dressing wounds		
Cutting frozen sections of tissue		
Decontaminating equipment		
Grossing tissue		
Handling (touching) contaminated work surfaces		
Handling specimens of blood or OPIM		
Handling infectious (regulated) waste		
Handling infected animals		
Handling contaminated sharps		
Handling concentrated HIV or HBV		
Handling soiled laundry		
Handling contaminated instruments		
Invasive procedures		
Phlebotomy		
Processing specimens of blood or OPIM		
Servicing/repairing contaminated equipment		
Surgical procedures (animals infected with HIV/HBV)		
Surgical procedures (human)		
Vascular access procedures		

For Instructions, see Page 2

PART B -- Page 2

UNIT: (College or School)
 DEPT: (Name of Department)
 SECTION: (Name of Section)

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

APPENDIX B
TRAINING FORMS

NYU

BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM

HIV/HBV TRAINING RECORD
(Basic Training)

NAME _____ **DATE** _____

SOCIAL SECURITY # _____ **JOB TITLE** _____

DEPARTMENT _____ **BLDG/RM** _____

The above named employee was given information and training covering the following topics:

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

1. The OSHA Bloodborne Pathogens Standard;
2. The epidemiology and symptoms of HIV and HBV;
3. The modes of transmission of HIV and HBV;
4. NYU's Bloodborne Pathogens Exposure Control Program;
5. Methods for recognizing activities that may involve exposure to blood and other potentially infectious materials;
6. The use and limitations of universal precautions, engineering controls, work practices and personal protective equipment;
7. The types, proper use, location, removal, handling, decontamination and/or disposal of personal protective equipment;
8. The basis for selection of personal protective equipment;
9. HBV vaccine, its efficacy, safety, and its availability free of charge;
10. Actions to take and persons to contact in an emergency;
11. The procedure to follow if an exposure incident occurs; and
12. The color-coding and signs and labeling that are used to identify Biohazardous materials.

 Trainer's Name, Job Title and Department (Please Print)

 Trainer's Signature

NYU

BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM

HIV/HBV TRAINING RECORD
 (Additional Training)

NAME _____ **DATE** _____

SOCIAL SECURITY # _____ **JOB TITLE** _____

DEPARTMENT _____ **BLDG/RM** _____

The above named employee was given information and training covering the following (check applicable):

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

___ Departmental protocols, practices and procedures.

___ Standard microbiological practices and techniques.

___ Microbiological practices and techniques for work with human pathogens or tissue cultures.

Trainer's Name, Job Title and Department (Please Print)

Trainer's Signature

APPENDIX C

HEPATITIS B VACCINE DECLINATION

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

NYU

**BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM
HEPATITIS B VACCINE DECLINATION**

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

Name (please print)_____
Signature_____
Job Title_____
Social Security Number_____
Department_____
Date

Subject: **BLOODBORNE PATHOGENS EXPOSURE CONTROL PROGRAM**

Policy No. 110

APPENDIX D
SAMPLE AUDIT FORMS