

UNIVERSITY OF NEVADA, RENO

INSTITUTIONAL BIOSAFETY COMMITTEE

**BLOODBORNE PATHOGENS EXPOSURE
CONTROL PLAN**

Revised November 2008

**ENVIRONMENTAL HEALTH & SAFETY
DEPARTMENT**

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FOREWORD

November 1, 2008

TO: Faculty, Staff, and Student Employees

FROM: Dr. William Courchesne, Chair
Institutional Biosafety Committee

SUBJECT: Bloodborne Pathogen Exposure Control Plan

The University of Nevada, Reno Bloodborne Pathogens Exposure Control Plan incorporates the most current work procedures, engineering controls, and medical surveillance practices. The Institutional Biosafety Committee has reviewed and approved the Plan and fully endorses its implementation. This latest revision of the Bloodborne Pathogen Exposure Control Plan replaces in its entirety the earlier revision of the Infection Control Plan dated 11/1/2007.

The Bloodborne Pathogens Exposure Control Plan is designed to minimize risks to the UNR community from exposure to human blood, blood products, and certain human biological fluids, and to meet regulatory expectations mandated by the Occupational Safety and Health Administration (OSHA). The Bloodborne Pathogens Exposure Control Plan is the document that describes the larger UNR Bloodborne Pathogens Program that is administered by the Environmental Health and Safety Department (EH&S).

University supervisors that have personnel potentially exposed to bloodborne pathogens as part of their occupational duties are expected to comply with the requirements of the UNR Bloodborne Pathogens Program. Personnel that work with, or may reasonably have contact with, human blood, body fluids, unfixed tissue, and human tissue culture or cell lines are considered to be at risk from bloodborne pathogens. Each department or supervisor is required to identify these individuals and comply with the elements of the UNR Bloodborne Pathogens Program, including hepatitis B vaccination and annual training.

The job activities and scenarios that fall under the purview of the Bloodborne Pathogens Exposure Control Plan are broad, and it is strongly recommended that each administrative unit review the Plan for applicability. The revised Plan is available on the [EH&S web site](#), and hard copies are available from the Environmental Health and Safety Department (EH&S).

The Institutional Biosafety Committee believes the Bloodborne Pathogens Exposure Control Plan supports the University's goal of ensuring a safe and healthy learning, research, work, entertainment, and living environment for students, staff, faculty, and visitors. The Institutional Biosafety Committee strongly encourages each department and supervisor to fully adopt the Bloodborne Pathogens Exposure Control Plan and implement its requirements as applicable.

The enclosed document comprises the Bloodborne Pathogens Exposure Control Plan for the University of Nevada, Reno, as required by Federal OSHA Statute 29 CFR 1910.1030, hereafter referred to as the plan. By design, it is broad in both scope and content.

Due to extreme diversity in organization, procedures, and functions between each of the different departments, schools, and campuses that constitute the University of Nevada, Reno, it is not possible to draft a single policy that adequately covers all requirements of the standard. It therefore is necessary for each department, school or campus to complete certain portions of the plan that will be unique to that entity. Those portions of the plan are:

1. Occupational Exposure Assessment – Supervisors must classify all employees into one of two groups by level of exposure risk associated with their occupational tasks.
 - a. The high exposure potential group includes all service, healthcare or laboratory workers that work with or have a potential to be exposed to blood, blood products, or other potentially infectious materials (OPIM)* while performing their assigned job duties. This group must be included in the bloodborne pathogen training program.
 - b. The low exposure potential group includes employees not at risk for exposure to bloodborne pathogens. Employees included in this group are office workers, data entry personnel, non-laboratory professors, and anyone who does not see blood or other infectious materials as part of the normal workday.
2. Inspection of Engineering Controls - All engineering controls *shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.* As stated in Section K of Methods in The Plan, each department that utilizes sharps in the workplace must form a committee to evaluate sharps engineering controls.
3. Containerization and Labeling - Container and label requirements are detailed under appropriate headings in the plan. Each supervisor is required to ensure all employees are familiar with and understand the specific labeling requirements established within their workplace.
4. Personal Protective Equipment - Appropriate personal protective equipment must be identified for tasks considered an exposure risk.

*NOTE: Other potentially infectious materials (OPIM) include:

- 1) semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood, and anytime it is difficult to differentiate between body fluids;
- 2) any unfixed tissue or organ (other than intact skin) from a human (alive or dead);
- 3) human cell or tissue cultures, organ cultures; HIV-containing culture medium, tissue culture, solutions, blood, organs, or tissue from experimental animals infected with HIV, HCV or HBV.

5. Cleaning Schedules - A written schedule for cleaning and decontamination of contaminated areas must be established. It should identify when decontamination is required and the methods to be used. Appropriate disinfectants will be identified, based upon information contained in section G of “METHODS” in the plan, CDC publications, or recommendations by EH&S.
6. Sharps Containers – A request for pickup by EH&S should be submitted when sharps containers are approximately $\frac{3}{4}$ full. Containers are available free of charge from EH&S by request through the [EH&S web Site](#). See the chapter on Biohazardous Waste in the [UNR Biosafety Manual](#).
7. Hepatitis B Virus (HBV) Vaccination and Post Exposure Evaluation Follow-up – HBV vaccination and post exposure medical evaluation must be in accordance with OSHA requirements. It is recommended that a single medical provider be designated to provide both of the above referenced services. The specific requirements for each, along with record keeping requirements, are outlined in the plan.
8. Employee Training - Both initial and annual refresher hazard training are required for all employees who are occupationally exposed to either blood or other potentially infectious material. The training is to be performance oriented. Both the initial and annual refresher versions are to include the necessary protective measures to be taken. Retraining is required, should changes in procedures or tasks occur. Further details of the training requirements are contained in the appropriate section of the plan.
9. Record Keeping - Records of training conducted by EH&S are maintained by EH&S. Medical records shall be kept in a fashion that protects the employee's rights to privacy. Strict CONFIDENTIALITY of medical records must be observed, with access granted only upon written permission by the employee. Documentation records involving sharps exposure incidents, medical and vaccination records, as well as vaccination declination forms are kept by the UNR Workers Compensation Office.

Questions regarding this plan or requests for assistance in setting up the required individual sections for specific department or school plans should be directed to the University of Nevada, Reno, Environmental Health & Safety Department at (775) 327-5041.

SCOPE

This safety policy is directed towards protecting, as much as possible, all University personnel from exposure to blood and OPIM. It is designed to achieve compliance with Federal Occupational Health and Safety Administration standards, specifically 29 CFR 1910.1030, more commonly known as the [Bloodborne Pathogens Standard](#)

APPLICABLE DOCUMENTS

CFR Title 29 1910.1030 Bloodborne Pathogens

METHODS

A. EXPOSURE DETERMINATION

1. The following conditions should be considered as constituting a potential exposure:
 - a. Any needle stick with used or contaminated equipment.
 - b. Any cut or other puncture of the skin caused by contaminated equipment, tools, scalpels, etc.
 - c. Any exposure by blood or OPIM to the mucous membrane, such as contact to the mouth, eye, nostril, etc.
 - d. Any cutaneous exposure involving large amounts of blood or OPIM or prolonged contact, especially when the exposed skin is chapped, abraded, or afflicted with dermatitis.
2. Any incidents meeting the above detailed criteria shall require appropriate first aid, reporting to the immediate supervisor of the exposed party, the Environmental Health and Safety office, as well as the workers compensation office at BCN.

B. CONTROL METHODS

1. UNR personnel will use five methods, either singly or in combination, to control occupational exposures to bloodborne pathogens. They are universal precautions, engineering controls, personal protective equipment, administrative controls, and established work practices.
2. **Universal Precautions:** Under normal circumstances, an individual does not know if a patient or a laboratory sample is infected by a bloodborne pathogen. In view of the above, the Centers for Disease Control and Prevention (CDC) recommends that all blood and OPIM be considered as infectious materials unless the source can be with certainty identified as non-infectious. This is particularly true in emergency-care situations where the risk of exposure is increased and little or nothing is known about the infection status of the injured individual. These **universal precautions** are categorized as follows (see Appendix "A"):
 - a. General Guidelines (all health-care workers)
 - b. Precautions for Dentistry

c. Precautions for Laboratories

3. **Engineering Controls:** These controls must be employed in order to minimize employee exposures while performing their job duties. This includes engineering controls used to prevent needlestick injuries. Any device or procedure that requires the use of a needle must be engineered using the best available technology. Preferably, a needle is not required to perform the task, but if use of a needle is necessary the operator must be protected from a potential needle stick injury.

a. Engineering controls to be used include, but may not be limited to the following:

- (1) Self – sheathing needles
- (2) Jet injection devices
- (3) Catheter safety systems
- (4) Needleless systems
- (5) Appropriate sharps containers (available from EH&S)
- (6) Splash guards
- (7) Mechanical pipetting devices
- (8) Biological safety cabinets (BSC)
- (9) Washing facilities

b. Equipment shall be examined on a regular schedule determined by the manufacturer's recommendations. Equipment shall be evaluated on a regular basis and results will be forwarded to the responsible supervisor such as the clinic manager, head nurse, or principal investigator. These findings are to be used to determine efficacy of equipment as well as service or maintenance requirements. The responsible supervisor is designated as being responsible for insuring completion of these activities.

4. **Personal Protective Equipment:** personal protective equipment (PPE), such as gloves and lab coat, is specialized equipment or clothing worn or used by an employee that provides an effective barrier between the employee and an exposure source of blood or OPIM. The supervisor is responsible for providing all affected staff members with necessary PPE. The supervisor must conduct employee PPE assessments, and implement these assessments in the workplace standard operating procedures (SOPs). PPE is not to be considered a substitute for proper work procedures. PPE can include, but may not be limited to those listed below in Table I. Assessments of PPE may be modified following an assessment of the risk of any specific procedure.

Hazard	Recommended Personal Protective Equipment		
	Eye	Face	Hand/Body
Any Use of Chemicals	Safety Glasses		Lab Coat
Clinical Functions, Medical Exams,	Safety Glasses		Lab Coat, or Gown, Rubber Gloves
Biomedical Research and General Laboratory Work involving BBP's	Safety Glasses		Lab Coat, Gloves
Use of Carcinogens, Reproductive Toxins, and Other Highly Toxic Compounds	Chemical Splash Goggles	Full Face Shield and Goggles for Large Liquid Volumes (≥ 4 L)	Chemical Resistant Gloves and Lab Coat
Cryogenic Liquids	Chemical Splash Goggles	Full Face Shield and Goggles When Pouring or Other Transfers	Lab Coat, Cryogenic Gloves or Other Insulated Gloves That Provide Cold Protection, Solid Toe Shoes
Sprays and Splashes of OPIM or blood	Safety Goggles	Full Face Shield and Goggles	Lab Coat, Gown, Gloves
Surgery or Containment: Animal Facilities or Biosafety Level 3 Laboratories	Safety Glasses	Full Face Shield and Goggles	Gown, Shoe Covers, Gloves

Table I**Personal Protective Equipment and Uses**

5. **Established Work Procedures:** This method utilizes “best practice” work procedures, such as listed below, to eliminate or minimize the occupational exposure potential to the employee.
- a. Remove PPE:
 - (1) Before leaving the work or research area
 - (2) Immediately after completing patient contact
 - (3) If PPE is grossly contaminated
 - (4) If PPE no longer works as an effective barrier
 - b. Place soiled or used equipment in appropriately designated containers or areas for storage, washing, decontamination, or disposal.
 - c. Use water to thoroughly flush the skin or mucous membranes as soon as possible if they come into contact with blood or other potentially infectious materials. Personnel will wash hands as soon as possible after removal of gloves or other PPE.
 - d. When needles or other sharps are used, the best available engineering controls must be in place so as to avoid a laceration or needle stick incident. Do not shear, bend, break, recap or resheathe used needles and other sharps by hand. For reusable syringes, a recapping method that prevents accidental needle sticks shall be used (e.g., mechanical device or one-handed technique).
 - e. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing and spraying.
 - f. Use a pipet bulb or aspirator for pipetting, NEVER pipet by mouth.
 - g. Food, beverages, cosmetics, lip balm, etc. shall not be consumed, stored, or applied in work areas where the possibility of contamination by infectious materials exists.
 - h. Work surfaces must be decontaminated using a disinfectant approved by the [EPA](#) as soon as possible after a spill of blood or OPIM, and at the completion of the work schedule.

C. HBV VACCINATION

1. Vaccination against the hepatitis B virus must be offered under the following conditions to all employees whose listed job responsibilities involve contact with blood or other potentially infectious materials:
 - a. HBV vaccination is paid for by the employer and provided at no cost to the employee.
 - b. The vaccination shall be offered to employees at a reasonable time and place.
 - c. It shall be made available within ten working days of employee's original assignment to the position.
 - d. Valid information about the vaccine must be given to the employee so that an informed decision can be made about the effectiveness of the vaccine.
 - e. Employees in high-risk environments such as clinicians, nurses, or phlebotomists will be offered testing for antibody to hepatitis B surface antigen one to two months after completing the three dose vaccination series. Persons who do not respond to the primary vaccine series should complete a second three-dose vaccine series or be evaluated to determine if they are HBsAg-positive..
 - f. Employees, whose job tasks involve contact with blood or OPIM, who decline to accept the vaccination, shall sign a statement declaring that refusal (see Appendix C). Should the employees later change their minds, they shall have the vaccination made available to them under the above detailed conditions.
2. Employers are required only to provide vaccination to employees considered at risk to exposure due to job requirements.

D. POST EXPOSURE EVALUATION AND FOLLOW-UP

1. In the event of an exposure incident, as defined in the Exposure Determination section of this Plan, the affected employee shall receive **immediate** first aid to mitigate effects of possible exposure. First aid for a possible exposure incident shall consist of the following procedures:
 - a. Needlesticks with used or contaminated equipment –
 - (1) Wash the area with soap and water
 - (2) Cover the wound with sterile bandage

- b. Cuts or punctures of the skin caused by contaminated equipment, tools, scalpels, etc –
 - (1) Wash the area with soap and water
 - (2) Use disinfectant on cuts
 - (3) Cover with sterile bandage

 - c. Mucous membrane exposure to blood or OPIM, such as a splash to the mouth, eye, etc. –
 - (1) Wash the area of possible exposure with running water
 - (2) Do not attempt to remove contacts. Allow contact lenses to be flushed out by running water

 - d. Cutaneous exposure involving large amounts or prolonged contact of blood or OPIM especially when the exposed skin is chapped, abraded, or afflicted with dermatitis-
 - (1) Wash the affected area with soap and running water
 - (2) Use disinfectant on the area
2. After first aid treatment, the employee shall report the incident to his/her supervisor. In addition, the Workers Compensation office must be notified of the event. CDC recommendations state that prophylaxis is most effective when initiated within two hours of the incident; therefore, it is imperative that the employee goes to one of the below listed Urgent Care Facilities providing services for the Workers' Compensation program as soon as possible. All employees, including student employees, must **not** use Student Health for evaluation. Facilities near the University that participate in the program include:

Urgent Care Facilities: for injuries requiring a doctor's attention obtained during working hours.

Specialty Health Clinic
350 W. Sixth Street
Suite 2-D
Reno, NV
(775) 322-2122

Emergency Rooms: for life threatening injuries or after normal business hours

Northern Nevada Medical Center
2375 East Prater Way
Sparks, NV
(775) 331-7000

St. Mary's Hospital
235 West Sixth St. Reno, NV
(775) 770-3000

3. The affected employee's department and health care facility will provide a **confidential** medical evaluation and follow-up to the employee. The following elements shall be performed during the evaluation:
 - a. Document the route of exposure and circumstances of the incident. If a needlestick causes the incident, it must be also documented on a separate needlestick incident log. The UNR Workers Compensation Office handles needlestick documentation.
 - b. Document the identity and infectious status of the source individual. If the infectious status is not established, the source individual's blood shall be tested immediately after obtaining consent. As per Washoe County law, should the source individual refuse to give consent to have his blood tested for bloodborne pathogen presence, his requests must be honored.
 - c. Notify the exposed employee of the source individuals test results if these results are available.
 - d. Collect and test the exposed employee's blood as soon as feasible after obtaining consent. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If within 90 days of the exposure incident the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.
 - e. Should prophylaxis be recommended, follow [CDC Recommended Guidelines](#) for post-exposure prophylaxis
 - f. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation
4. The healthcare professional responsible for evaluating the exposed employee must be provided or have available the following:
 - a. A copy of the OSHA Bloodborne Pathogen Standard, 29 CFR 1910.1030
 - b. A description of the employee's duties related to the incident
 - c. Documentation of the route of entry and exposure circumstances
 - d. Available source blood testing results
 - e. A copy of all required medical records relevant to the treatment of the employee, including vaccination status

5. The results of the medical evaluation are to be strictly **confidential** between the healthcare professional and employee. The employer will obtain a written notice from the healthcare professional and provide a copy to the employee following completion of the medical evaluation. **The notice will not contain any findings or diagnoses.** The notice to the employer should contain the following:
 - a. A statement that the employee has been notified of the evaluation results
 - b. A statement that the employee has been notified of any medical conditions that may arise from the exposure which may require further treatment
6. All records must be kept in accordance with the Recordkeeping section of this Plan (Section J.2).

E. INFECTIOUS WASTE DISPOSAL

1. All biohazardous waste will be disposed of according to the procedures outlined in the Biohazardous Waste section of the [UNR Biosafety Manual](#) EH&S and/or the University Biosafety Officer to obtain a copy of the specific procedures.
2. Sharps, both contaminated and uncontaminated, must be collected in rigid, leak proof, puncture resistant containers that are properly labeled as biohazardous waste. Appropriate sharps containers can be obtained from EH&S and can be requested using the standard request forms on the [EH&S web site](#) or call 327-5041 if web access is unavailable.
3. Solid biohazardous waste must be collected in an approved autoclavable biohazard bag and autoclaved prior to disposal. Biohazard bags can be obtained from EH&S and can be requested using the standard request forms on the [EH&S web site](#) or call 327-5041 if web access is unavailable. Solid biohazardous waste must be autoclaved within seven days once the bag is full.

F. BIOHAZARD LABELS AND SIGNS

1. Warning labels must be affixed to waste containers, refrigerators, freezers, and other containers used to store, transport or ship blood or OPIM. Labels shall:
 - a. Display the universal biohazard symbol and contain the word "BIOHAZARD"
 - b. Be predominantly fluorescent orange or orange-red, with lettering and symbols of contrasting color

Examples of Biohazard labels and signs

- c. Be affixed as close as feasible to the container by string, wire, adhesive or other method that prevents their accidental loss
 - d. Be optional if red bags or containers are used as a substitute for labeling
 - e. Be optional if individual containers of blood or OPIM are placed in labeled containers
 - f. Not be used on containers of blood or blood products that are labeled as to their contents and released for transfusion or other clinical uses
 - g. Not be required for decontaminated waste
2. Research laboratories that use human blood or OPIM, or Bloodborne pathogens such as HIV and HBV shall post signs with the following:
- a. Universal biohazard symbol with the word "BIOHAZARD" above or below it
 - b. Name of the infectious agent
 - c. Special requirements for entering the area
 - d. The name and telephone number of the lab director or other responsible person

G. HOUSEKEEPING PRACTICES

1. Responsible/Supervisory personnel are obligated to maintain the work-site in a clean and sanitary condition. They shall establish and implement a written schedule for cleaning and appropriate decontamination based upon the following:
- a. Type of surface to be cleaned
 - b. Type of contaminant to be cleaned
 - c. Tasks or procedures performed in the area
2. After contact with blood or OPIM, surfaces shall be decontaminated with an appropriate disinfectant and protective coverings replaced under the following guidelines:

- a. Work surfaces will be cleaned when visibly contaminated, at the end of the work shift, or at a regularly scheduled frequency (i.e. weekly)
 - b. Protective coverings, such as imperviously-backed absorbent paper, will be removed and replaced when overtly contaminated or at the end of the work shift
 - c. All equipment and reusable containers shall be inspected and decontaminated on a scheduled basis or when visibly contaminated
 - d. Contaminated broken glassware shall be collected using mechanical means, such as a brush and dust pan, tongs, or forceps, and be properly decontaminated before disposal. This can be accomplished by either using a chemical disinfectant, or by autoclaving the material.
3. Responsible/Supervisory personnel shall establish and implement written procedures for methods of decontamination appropriate for the equipment to be cleaned, the procedures performed, and the relevant contaminate.

H. LAUNDRY PRACTICES

1. Contaminated laundry shall be handled as little as possible and with a minimum of agitation. Contaminated laundry shall be placed in appropriately labeled containers at the location used, without sorting or rinsing. Containers must prevent leakage or soak-through from wet laundry during storage or transport.
2. Laundry shall be cleaned in accordance with established written laboratory/department procedures. A standard laundry detergent must be used, and any potentially contaminated laundry must be washed in hot (>125 ° F) water. The laundry should have a contact time with the wash water of at least 20 minutes. If possible, the use of bleach is advised.

I. TRAINING AND EDUCATION OF EMPLOYEES

1. All University employees with occupational exposure to blood and other potentially infectious materials will participate in a training and education program. This training shall be provided during normal work hours at no cost to the employee. This training is provided by EH&S.
2. The presentation material must be of appropriate content and language so as to be compatible with the educational and literacy level of the employees receiving the training. The person conducting the training shall be knowledgeable in the subject matter to be taught.
3. The training shall be provided when:

- a. Initial assignment is made
 - b. At least annually thereafter
 - c. When changes, modifications or additions are made to the tasks and/or procedures and need only address the changes in exposure created.
4. The training program shall include:
- a. An accessible copy of the standard
 - b. A general explanation of the epidemiology and symptoms of bloodborne diseases
 - c. An explanation of the modes of transmission of the pathogens
 - d. An explanation of the exposure control plan and the means of obtaining a copy
 - e. An explanation of the methods of recognizing tasks and activities, which may involve an exposure potential
 - f. An explanation of the use and limitations of the control methods employed to reduce exposure potentials
 - g. Instruction and information on the types, location, use, decontamination and disposal methods of the designated personal protective equipment
 - h. An explanation of the basis of selection of the personal protective equipment
 - i. Information on the HBV vaccination, including:
 - (1) Efficacy
 - (2) Safety
 - (3) Method of administration
 - (4) Vaccination benefits
 - (5) Lack of cost to the employee
 - j. Information on the actions to take and persons to contact in an emergency involving blood and/or other potentially infectious materials
 - k. An explanation of the procedures to follow in the reporting methods and follow-up procedures following a potential exposure
 - l. Information on the medical evaluation and follow-up procedure that will be offered in the event of an exposure incident

- m. An explanation of the signs and labels and color-coding to be used
 - n. An opportunity to participate in a question and answer session with the trainer
5. Research Laboratories are required to provide, or document, that the employee has received the following additional initial training prior to permitting employees to work with HIV or HBV:
- a. Each employee must demonstrate proficiency in standard microbiological practices and techniques, and in the operations and practices specific to the facility
 - b. Each supervisor must have assurance that the employee has previous experience handling human pathogens
 - c. A progressive training program for employees with no prior experience must be in place. Such a training program will require demonstrating proficiency prior to advancement to the next level. Actual work with the infectious agents can only occur after successful demonstration of prerequisite microbiological proficiency
6. All training should be documented as outlined in the RECORDKEEPING section

J. RECORDKEEPING

- 1. Medical and training records are required to be maintained in conjunction with this Plan.
- 2. Medical Records: The following requirements apply to medical records of employees with occupational exposures:
 - a. Name and employee number
 - b. HBV vaccination status documents, including:
 - (1) Dates of all HBV vaccinations
 - (2) Medical records related to the employee's ability to receive HBV vaccinations
 - (3) Original signed declination form for personnel who decline vaccination
 - c. Copy of results of all required examinations, medical tests and follow-up procedures

- d. Employee supervisor's copy of the healthcare professional's written notice provided after evaluation of an exposure incident
 - e. Copy of the information, required by standard, provided to the healthcare professional
 - f. Maintained in **confidentiality** for the duration of employment plus thirty years
 - g. All medical records are kept in a **confidential** file at the BCN Workers Compensation Office, and may not be released, except as required by law, without the employee's express written consent
3. Training Records: The following stipulations and informational requirements apply to the training records:
- a. They must contain the dates of the training
 - b. They must contain a summary of the training session
 - c. They must contain the names and qualifications of the persons conducting the training
 - d. They must contain the names and job titles of all persons attending the training session
 - e. Training records must be maintained for three years from the date of training, and be kept in a specific location. The records may be kept with the PI as well as with EH&S.
4. Sharps Injury Log: A sharps injury log must be maintained for all sharps related incidents. This log will be maintained by the UNR Workers Compensation Office, and will be forwarded to the responsible administrator of the location where the injury took place. This sharps injury log must maintain confidentiality and shall contain:
- a. The workplace location of the injury
 - b. The type and brand of the device involved in the incident
 - c. An explanation of how the incident occurred
5. All records shall be made available to the employee, employee representatives and representatives of the Assistant Secretary of Labor for Occupational and

Health and/or the Director of the National Institute for Occupational Safety and Health (NIOSH) upon request for purposes of review and/or copying. Medical records are also to be provided to those persons having express written consent of the employee.

K. NEEDLESTICK ACTION COMMITTEE

Each workplace that uses sharps devices must form a committee that will evaluate and make recommendations with regard to sharps awareness issues. This committee must include input from employees that handle the sharps devices directly. This committee's responsibilities include:

- a. Researching engineering controls that can prevent sharps incidents in the work place
- b. Evaluating these controls over time with regard to the efficacy and usefulness of these controls in the workplace
- c. Reporting these findings to the supervisor of the workplace, and make recommendations as appropriate. These considerations must be documented.

APPENDIX A

UNIVERSAL PRECAUTIONS

A. *General Guidelines*

All material that consists of or is contaminated with human blood or other potentially infectious materials (OPIM) must be considered potentially contaminated with any bloodborne pathogen. All Employees whose activities involve contact with blood or OPIM should consider the following as the *minimum* precautions.

1. *All employees, students and volunteers on the BBP Program should routinely use appropriate barrier precautions to prevent skin and mucous-membrane exposure when contact with blood or OPIM is anticipated. Gloves should be worn for touching blood and body fluids, mucous membranes, or any OPIM, for handling items or surfaces soiled with blood or body fluids, and for performing venipuncture and other vascular access procedures. Healthcare workers should change gloves after contact with each patient. All employees should change gloves when contaminated. Masks and protective eyewear or face shields should be worn during procedures that are likely to generate droplets of blood or OPIM to prevent exposure of mucous membranes of the mouth, nose, and eyes. Gowns or aprons should be worn during procedures that are likely to generate splashes of blood or OPIM.*
2. *Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or OPIM. Hands should be washed immediately after gloves are removed.*
3. *All employees should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures. To prevent needle stick injuries, needles should NOT be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture-resistant containers for disposal – the puncture-resistant containers should be located as close as practical to the use area. Large-bore reusable needles should be placed in a puncture-resistant container for transport to the reprocessing area.*
4. *Although saliva has not been implicated in HIV transmission, to minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.*
5. *Employees who have exudative lesions or weeping dermatitis should refrain from all direct contact with blood or OPIM and from handling patient-care equipment until the condition resolves.*
6. *Pregnant healthcare workers are not known to be at greater risk of contracting HIV infection than healthcare workers who are not pregnant – however, if a healthcare worker develops HIV infection during pregnancy, the infant is at risk of infection resulting from perinatal transmission. Because of this risk, pregnant healthcare workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.*

B. *Precautions for Dentistry*

Blood, saliva, and gingival fluid from **all** dental patients should be considered infective. Special emphasis should be placed on the following precautions for preventing transmission of bloodborne pathogens in dental practice in both institutions and non-institutional settings.

1. *In addition to wearing gloves for contact with oral mucous membranes of all patients, all dental workers should wear surgical masks and protective eyewear or chin length plastic face shields during dental procedures in which splashing or spattering of blood, saliva, or gingival fluids is likely. Rubber dams, high-speed evacuation, and proper patient positioning, when appropriate, should be utilized to minimize generation of droplets and spatter.*
2. *Handpieces should be sterilized after use with each patient, since blood, saliva, or gingival fluid of patients may be aspirated into the handpiece or waterline. Handpieces that cannot be sterilized should at least be flushed, the outside surface cleaned and wiped with a suitable chemical germicide, then rinsed. Handpieces should be flushed at the beginning of the day and after use with each patient. Manufacturers' recommendations should be followed for use and maintenance of waterlines and check valves and for flushing of handpieces. The same precautions should be used for ultrasonic scalers and air/water syringes.*
3. *Blood and saliva should be thoroughly and carefully cleaned from material that has been used in the mouth (e.g., impression materials, bite registration), especially before polishing and grinding intra-oral devices. Contaminated materials, impressions and intra-oral devices should also be cleaned and disinfected before being handled in the dental laboratory and before they are placed in the patient's mouth. Because of the increasing variety of dental materials used intra-orally, dental workers should consult with manufacturers as to the stability of specific materials when using disinfection procedures.*
4. *Dental equipment and surfaces that are difficult to disinfect (e.g., light handles or X-ray-unit heads) and that may become contaminated should be wrapped with impervious-backed paper, aluminum foil, or in clear plastic wrap. The coverings should be removed and discarded, and clean coverings should be put in place after use with each patient.*

C. *Precautions for Laboratories*

All blood and other potentially infectious materials should be considered infectious. To supplement the universal precautions listed and detailed in the previous sections, the following precautions are recommended for healthcare workers in clinical laboratories.

- 1. All specimens of blood and OPIM should be put in a well-constructed container with a secure lid to prevent leaking during transport. Care should be taken when collecting each specimen to avoid contaminating the outside of the container and of the laboratory form accompanying the specimen.*
- 2. All persons processing blood and OPIM specimens (e.g., removing tops from vacuum tubes) should wear gloves. Masks and protective eyewear should be worn if mucous-membrane contact with blood or OPIM is anticipated. Gloves should be changed and hands washed after completion of specimen processing.*
- 3. For routine procedures, such as histologic and pathologic studies or microbiologic culturing, a biological safety cabinet is not necessary. However, biological safety cabinets (Class I or II) should be used whenever procedures are conducted that have a high potential for generating droplets. These include activities such as blending, sonicating, and vigorous mixing.*
- 4. Mechanical pipetting devices should be used for manipulating all liquids in the laboratory. **Mouth pipetting must not be done.***
- 5. Use of needles and syringes should be limited to situations in which there is no alternative, and the recommendations for preventing injuries with needles outlined in the universal precautions section should be followed.*
- 6. Laboratory work surfaces should be decontaminated as soon as possible with an appropriate chemical germicide after a spill of blood or OPIM and when work activities are completed.*
- 7. Contaminated materials used in laboratory tests should be decontaminated before reprocessing or placed in bags and disposed of in accordance with [UNR Biosafety Manual](#)*
- 8. Scientific equipment that has been contaminated with blood or other potentially infectious materials should be decontaminated and cleaned before being repaired in the laboratory or transported to the manufacturer.*

9. All persons should wash their hands after completing laboratory activities and should remove protective clothing before leaving the laboratory.

APPENDIX B

**WASHOE COUNTY DISTRICT HEALTH
DEPARTMENT**

**DISTRICT BOARD OF HEALTH REGULATIONS GOVERNING
SOLID WASTE MANAGEMENT REGULATIONS**

AMENDED, WASHOE COUNTY DISTRICT BOARD OF HEALTH: April 2006

The regulations in their entirety may be obtained from the:

Washoe county District Health Department
1001 East Ninth Street
Post Office Box 11130
Reno, Nevada 89520-0027
775-328-2434
775-328-6176 (Fax)

<http://www.co.washoe.nv.us/health/>

OR

A copy may be viewed at the EH&S Department
Applied Research Facility, ARF, Room 3 or 222
775-327-5041/5196
775-784-4845
775-784-4553 (Fax)

OR

A copy of the relevant sub-parts (010.285 and 080.005 – 080.150) may be obtained from the EH&S Department.

APPENDIX C

HBV VACCINATION DECLINATION FORM

I understand that due to my occupational exposure to blood and other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given an 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 cost to me.

SIGNED: _____ DATE: _____

PRINT NAME: _____