The University of Arizona

Tucson, Arizona

BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN

Reference 29 CFR 1910.1030

Bloodborne Pathogens

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Questions regarding this plan may be directed to the Department of Risk Management and Safety at 621-1790.

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1.0 THE UNIVERSITY OF ARIZONA BLOODBORNE PATHOGEN EXPOSURE CONTROL POLICY

It is the policy of the University of Arizona to prevent employee infection from bloodborne human pathogens in occupational settings at university facilities.

2.0 PURPOSE

To assist the university community with the implementation of this policy, the Department of Risk Management Services (RMS) administers a comprehensive program to implement those practices which safety and health experts have accepted as effective in minimizing the risks associated with bloodborne pathogens. The University of Arizona Exposure Control Plan (ECP) characterizes individual responsibilities and sets forth uniform procedures addressing: standard precautions, information and training, labeling, waste disposal, and vaccinations, as required by Occupational Health and Safety Administration (OSHA) regulation 29 CFR 1910.1030, Bloodborne Pathogens. This standard was promulgated to reduce workplace exposure to and transmission of human bloodborne pathogens, especially the Human Immunodeficiency Virus (HIV), Hepatitis B virus (HBV), and Hepatitis C virus (HCV).

3.0 SCOPE AND APPLICATION

The following text is a written description of the University of Arizona's Exposure Control Plan. It is a procedural manual pertaining to infection control and biohazard safety at The University of Arizona. This plan is established to ensure compliance with paragraph (c) of the OSHA Bloodborne Pathogen standard (29 CFR 1910.1030) and is based on the concept of universal or standard precautions. Employees who have a reasonably anticipated occupational exposure to bloodborne pathogens must become knowledgeable in the applicable details of this plan and fulfill their responsibilities as outlined. This includes managerial and supervisory staff as well as those in the "at risk" categories mentioned below. All procedures that entail a reasonably anticipated exposure to human blood and/or other potentially infectious material must be planned and executed in accordance with the enclosed procedures. All provisions of this plan become effective immediately.

3.1 Exposure Determination

All of the employees at the University of Arizona in the following job classifications may have a reasonably anticipated occupational exposure to bloodborne pathogens:

Clinical Assistant	Surgery Interviewer
Research Nurse	Forensic Anthropologist
Anatomical Specialist	Histology Technician
Perfusionist	Resident Physician
Registered Nurse	Licensed Practical Nurse
Senior Research Nurse	Medical Technologist
Phlebotomist	Physician
Senior Nurse	Medical Assistant
Employee Wellness Coord.	Physician Consultant
Health Education Coord.	Senior Medical Technologist
Chief Athletic Trainer	Assistant Athletic Trainer
Student Athletic Trainer	Graduate Athletic Trainer
Chief of Police	Police Commander
Police Lieutenant	Police Sergeant
Police Corporal	Police Officer
Plumber	Lifeguard

Some of the employees at the University of Arizona in the following job classifications may have a reasonably anticipated occupational exposure to bloodborne pathogens:

Research Assistant	Postdoctoral Fellow
Research Specialist	Associate Professor
Research Technician	Senior Research Associate
Professor	Graduate Research Assistant
Research Associate	Visiting Research Scientist
Program Coordinator	Research Assistant Professor
Laboratory Assistant	Graduate Assistant
Senior Research Specialist	Laboratory Technician
Student Lab Assistant	Ophthalmic Technician
Postdoctoral Fellow	Ophthalmic Photographer
Graduate Teaching Assistant	Ophthalmic Researcher
Assistant Professor	Clinical Pharmacist
Graduate Student	Custodian
Research Aide	Glassware Attendant
Hazardous Waste Specialist	Environmental Compliance Technician
Mechanic	Electrician
Graduate Clinician	Aerobics Instructor
Aquatics Instructor	Health Educator
Exercise Physiologist	Biomedical Research Engineer

Certain tasks performed by these employees may cause occupational exposure to human blood or body fluids. Some of these tasks include patient-related examinations, blood-draws, diagnostic testing, research-related blood and tissue preparation, testing and culturing, waste handling and disposal, and emergency response.

4.0 DEFINITIONS

4.1 Definition of "bloodborne pathogen":

For the purposes of this plan, "bloodborne pathogen" means any pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, HBV, HCV, and HIV.

4.2 Definition of "blood":

For the purposes of this plan, "blood" means whole human blood, any of its parts (serum, platelets, etc.), products made from human blood, or any human body fluids contaminated with blood.

4.3 Definition of "other potentially infectious material":

For the purposes of this plan, "other potentially infectious material" means:

4.3.1 The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult to differentiate between body fluids;

4.3.2 Any unfixed tissue or organ (other than intact skin) from a human (living or dead);

4.3.3 HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV- or HCV-containing culture medium or other solutions, and;

4.3.4 Blood, organs, or other tissues from experimental animals infected with HIV, HBV, or HCV, and;

4.3.5 All human cell lines and tissue cultures

5.0 RESPONSIBILITIES

Responsibility for infection control rests at all levels, from the highest administrative level to the individual employee.

5.1 Managers:

All university managers including administrators, deans, department heads, and directors are responsible for:

5.1.1 Ensuring that individuals under their management have the authority to implement the ECP, and;

5.1.2 Ensuring that areas under their management are in compliance with the ECP.

5.2 Supervisors:

All supervisors, including principal investigators, instructors, and others having direct supervisory authority are responsible for maintaining a safe work environment that protects the employees under their supervision. This responsibility entails:

5.2.1 Assuring that all employees under their immediate direction and control successfully complete bloodborne pathogen safety training provided by RMS;

5.2.2 Recognizing the safety and health hazards to which these employees may be exposed;

5.2.3 Acquiring, and/or developing and implementing appropriate exposure controls;

5.2.4 Providing activity-specific training and information to employees on these exposures and the methods used to control these exposures;

5.2.5 Verify that all employees know and follow the work practices and procedures specified in the ECP;

5.2.6 Ensuring that all contaminated biohazard waste is properly accumulated, contained and labeled, and disposed of in accordance with the ECP;

5.2.7 Conducting periodic surveillance of activities to ensure that biohazard controls are effective and to identify any new hazards, and;

5.2.8 Reporting and investigating any exposure incidents.

5.3 Employees:

"At risk" employees are responsible for:

5.3.1 Successfully completing RMS's training on the control of bloodborne pathogens;

5.3.2 Reading and understanding the ECP;

5.3.3 Planning and conducting all tasks and procedures in accordance with the ECP;

5.3.4 Developing good personal exposure control work habits, and;

5.3.5 Informing supervisors of exposure incidents and conditions or work practices they believe may cause a bloodborne pathogen exposure to themselves or others.

5.4 Risk Management and Safety;

Risk Management and Safety is responsible for:

5.4.1 Providing general bloodborne pathogen safety training and making copies of the ECP available;

5.4.2 Providing guidance and technical assistance to individuals, supervisors, and managers in identifying, evaluating, and controlling bloodborne pathogen hazards;

5.4.3 Conducting periodic unscheduled and planned inspections of university facilities to ensure compliance with the ECP;

5.4.4 Eliminating or curtailing any activity constituting a significant danger to the health and safety of employees or the environment;

5.4.5 Managing the development of the ECP and the training on bloodborne pathogens;

5.4.6 Overseeing the administration of the plan and the general training;

5.4.7 Annually reviewing, evaluating, and updating the effectiveness of the ECP;

5.4.8 Providing a safe and efficient mechanism for the removal and disposal of contaminated waste and;

5.4.9 Ensuring that adequate records are kept of all inspections, exposure incidents, and contaminated waste operations.

5.5 Other Departments:

Other departments or agencies involved with various aspects of exposure control include the following:

5.5.1 The Campus Health Service (CHS) Occupational Health Clinic provides first-aid and initial medical treatment for university employees injured on the job. CHS also administers and keeps records for the Hepatitis B vaccination program, and post-exposure evaluation and consultation.

5.5.2 Facilities Management is responsible for the general maintenance and repair of facilities including ensuring that all building safety devices are in proper working condition (e.g. emergency eyewashes and showers, biological safety cabinets, etc.).

5.5.3 University Medical Center or the closest emergency medical facility provides emergency medical treatment for serious or life-threatening injuries, and routine treatment during non-operating hours of CHS.

6.0 EMPLOYEE'S RIGHTS

At The University of Arizona, employees have the basic right to an occupational setting free of recognized hazards that may cause injury or illness. In addition to this basic right, individuals have several other rights specific to the ECP. They include the right to: information and training for controlling bloodborne pathogen exposures (see Section 7.0, Information and Training), vaccination for Hepatitis B (see Section 10.0), and post-exposure medical care and consultation (see Section 12.0). The ECP is designed to assist in granting these rights.

7.0 INFORMATION AND TRAINING

To manage the information and training requirements under paragraph g(2) of the OSHA 1910.1030 standard, the training has been broken down into two levels: a general training and activity-specific training.

7.1 General Exposure Control Training

To provide all "at risk" individuals with a general overview of exposure control to bloodborne pathogens and the university's ECP, RMS has developed an online training program that follows the ECP and its appendices. Training must be provided within 90 days after the effective date of the standard (July 6, 1992), at the time of initial assignment to tasks where occupational exposure may take place, and at least annually thereafter. The ECP is available on-line. The training program covers the following information:

7.1.1 An explanation of the university's ECP;

7.1.2 A general explanation of the epidemiology and symptoms of bloodborne diseases;

7.1.3 An explanation of the modes of transmission of bloodborne pathogens;

7.1.4 An online link to the OSHA Bloodborne Pathogen Standard;

7.1.5 An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

7.1.6 An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

7.1.7 Information on the types, basis for selection, proper use, removal, handling, decontamination, and disposal of personal protective equipment;

7.1.8 Information on the free Hepatitis B vaccine, including details on its efficacy, safety, method of administration, and the benefits of being vaccinated;

7.1.9 Information on the procedures to follow if an exposure incident occurs, including the methods of reporting the incident, the medical follow-up that will be made available, and the post exposure evaluation and follow-up, and;

7.1.10 An explanation of the signs and labels required.

7.2 Activity-Specific Information and Training

Supervisors are required to provide employees with training and information to ensure that they are appraised of the specific hazards present in their particular area of work. At a minimum, employees shall be informed of the applicable details of the ECP and the specific health hazards of the tasks and procedures that may expose them to bloodborne pathogens in their work setting.

8.0 METHODS OF COMPLIANCE

Methods used to comply with the standard shall incorporate all of the following: Standard Precautions, personal protective equipment, engineering and work practices, and housekeeping.

8.1 Standard Precautions

The ECP incorporates the concept of Standard Precautions (see Appendix A). The concept of Standard Precautions is to assume that all human blood and body fluids are potentially infectious. These precautions are especially important to those employees in the health care field. Within the umbrella of Standard Precautions, there are several individual components including barrier techniques, handwashing, sharps precautions, and contaminated waste disposal procedures. Their primary objective is to afford employee protection against occupational exposure to and infection from bloodborne pathogens. Standard Precautions are not generally intended to reduce cross contamination among patients.

8.1.1 Barrier precautions will be used as a primary prevention of contact with blood. The appropriate barrier is determined by the level of risk of the exposure.

8.1.1.1 Low level of risk: Skin contact with blood or other potentially infectious material, handling of contaminated materials and/or waste, specimen processing, dressing changes, invasive patient procedures, and any time the employee has cuts, lesions, dermatitis or chapped hands.

Precautions: Disposable gloves will be worn and discarded after task.
Do not contaminate the work area with dirty gloves.
Lab coat, plastic aprons, etc. are recommended if the blood is likely to soil the skin or clothing.

8.1.1.2 Moderate level of risk: Chance of gross contamination or splashing blood or other potentially infectious material to mucosal surfaces (eyes, nose, mouth) of

the face is high, manipulation of human cell, tissue, or organ cultures, surgical procedures.

Precautions: Disposable gloves will be worn and discarded after task.
Do not contaminate the work area with dirty gloves.
A lab coat, plastic apron, etc. will be worn.
Chemical splash goggles, face shield or other protective eye ware will be worn.
Biosafety Level Two (BL2) procedures are followed in lab work.

8.1.1.3 High level of risk: Manipulation of human or animal cell, tissue or organ cultures infected with viable HIV, HBV, or HCV or work in HIV, HBV, or HCV production facilities.

Precautions: Biosafety Level Three (BL3) procedures are followed in lab work.

Note: Biosafety Level criteria are outlined in Appendix B.

8.1.2 Handwashing

Handwashing and other applicable work practices will be used to reduce occupational exposure to bloodborne pathogens. The use of gloves does not preclude the necessity for handwashing. When handwashing facilities are not available, antiseptic hand cleaners or towelettes must be provided. Mucous membranes such as eyes, nose, and mouth will be immediately washed/rinsed with water for five minutes if contaminated. Hands and other skin surfaces must be washed, using a soap or antiseptic cleaner, as soon as possible if:

8.1.2.1 Contaminated with blood or other potentially infectious material;

8.1.2.2 Protective barriers fail (i.e. glove rips);

8.1.2.3 Gloves are removed for any reason.

8.1.3 Sharps Precautions

Sharps Precautions prevent injury and infection from contaminated needles, scalpels and razor blades, and other sharp instruments. Needlesticks and other percutaneous injuries resulting in exposure to blood or other potentially infectious materials are of concern due to the high frequency of their occurrence and the severity of the health effects associated with exposure. Employees must take precautions to prevent injuries caused by needles/sharps or instruments/devices during procedures, when cleaning soiled instruments/devices and during the disposal of used needles/sharps.

8.1.3.1 Used needles are not to be purposely broken or bent by hand.

8.1.3.2 Contaminated needles/sharps are not to be recapped or removed unless required by a specific medical procedure. Such recapping or removal shall not employ a two-handed manual technique, but must be accomplished through the use of a mechanical device or a one-handed technique.

8.1.3.3 Immediately or as soon as possible after use, contaminated needles/sharps shall be placed in appropriate sharps containers for disposal. These containers must be:
- puncture resistant;
- labeled or color-coded;
- leakproof on the sides and bottom;
- readily and easily accessible;
- closed immediately prior to removal or replacement.

8.1.3.4 A wide variety of medical devices have been developed to reduce the risk of needlesticks and other sharps injuries. These "safer medical devices" replace sharps with non-needle devices or incorporate safety features designed to reduce the likelihood of injury. Departments with employees involved in direct patient care who are potentially exposed to injuries from contaminated sharps must annually evaluate effective engineering controls (including sharps with engineered sharps injury protection and needless systems), and implement the safer medical devices if deemed appropriate. An appropriate safer medical device includes only devices whose use, based on reasonable judgement will not jeopardize patient or employee safety or be medically contraindicated. Non-managerial employees responsible for direct patient care and who are potentially exposed will assist in the identification, evaluation, and selection of these devices.

8.1.4 Contaminated Waste Disposal

The university's Biohazardous Waste Program (Appendix C) details the safe disposal of biohazards and contaminated sharps. Care should always be taken when bagging and transporting contaminated waste.

8.1.4.1 All contaminated waste must be double-bagged in 2 mil plastic red bags (available from Campus Stores #32075015), and;

8.1.4.2 Red bags must be placed in one of the biohazard waste containers located throughout campus. Sharps disposal containers do not have to be bagged prior to disposal.

8.2 Personal Protective Equipment

Personal protective equipment and supplies required to take the necessary precautions to prevent contamination will be available in the immediate work area. Personal protective equipment used as barrier precaution must meet the following criteria:

8.2.1 Gloves must be of the appropriate size, material, and quality to afford the employee proper protection from the hazard encountered.

8.2.2 Disposable gloves should never be washed or disinfected for reuse.

8.2.3 General purpose utility gloves may be reused unless they show any signs of deterioration or contamination.

8.2.4 Gloves must be available which are hypo-allergenic or otherwise designated for employees who are allergic or have adverse skin conditions related to wearing regular disposable gloves.

8.2.5 Lab coats, aprons or gowns and other protective clothing must be appropriate for the procedure involved. The type and characteristics depend upon the task and degree of exposure anticipated.

8.2.6 Protective clothing must not allow blood or body fluids to pass through and reach undergarments, skin, mouth, eyes, etc. under normal conditions of use.

8.2.7 Chemical splash goggles, face shields and other protective eye ware must seal tightly around the eyes or incorporate solid top and side shields.

8.3 Engineering Controls, Work Practices, and Housekeeping

Engineering controls, work practices, and housekeeping as they apply to the prevention of exposure to bloodborne pathogens are:

8.3.1 All work areas should be kept in a clean, orderly condition;

8.3.2 Eating, drinking, smoking or use of tobacco products, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure;

8.3.3 Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present;

8.3.4 All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets or aerosols of these substances;

8.3.5 Mouth pipetting/suctioning of blood or other potentially infectious material is prohibited;

8.3.6 Specimens of blood or other potentially infectious materials shall be placed in containers which prevent leaking during collection, handling, processing, storage, transport, or shipping;

8.3.7 Equipment that may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary;

8.3.8 Spills of blood or other potentially infectious material must be cleaned up immediately. Spill area shall be decontaminated with a 10% (vol/vol) solution of household bleach (sodium hypochlorite) in water, or other appropriate disinfectant (see Section 11.1).

8.3.9 A certified class II biological safety cabinet shall be used when activities with blood and other potentially infectious materials are manipulated in a manner that pose a threat of exposure to droplets, splashes, spills or aerosols.

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

8.4 Labels and Signs

Required labels and signs shall include the international biohazard symbol (see appendix B) and the word "biohazard" or "biological hazard." Label color must be predominantly orange or orange-red with lettering and symbol in a contrasting color.

8.4.1 Warning labels shall be affixed to:

8.4.1.1 Containers of contaminated waste;

8.4.1.2 Refrigerators and freezers containing blood or other potentially infectious material, and;

8.4.1.3 Other containers used to store, transport or ship blood or infectious materials.

8.4.1.4 Individual containers of blood or other infectious material that are placed in a labeled container during storage, transport, shipment or disposal do not have to be labeled.

8.4.2 Warning signs must be placed at the entrance to all BL2 and BL3 research laboratories and production facilities. Signs must include:

8.4.2.1 The name of the infectious agent;

8.4.2.2 Special requirements for entering the area, and;

8.4.2.3 The name and telephone number of the laboratory director, principal investigator or other responsible person.

9.0 HIV & HBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES

HIV and HBV research laboratories and production facilities have specific concerns that are detailed in Section (e) of the standard. These requirements apply in addition to the other requirements of the standard. They do not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs.

9.1 HIV and HBV Research Laboratories (BL2)

Standard microbiological practices plus strict adherence to biosafety level two (BL2) practices must be followed in all HIV and HBV research laboratories:

9.1.1 Laboratory doors shall be kept closed when work involving HIV or HBV is in progress;

9.1.2 Contaminated materials and wastes that are to be decontaminated at a remote site shall be placed in a durable, leakproof, labeled or color-coded container before being removed from the laboratory;

9.1.3 Access to the work area shall be limited to authorized persons;

9.1.4 When other potentially infectious material or infected animals are in the lab, a hazard warning sign shall be posted on all access doors;

9.1.5 Appropriate protective clothing shall be used in the work area and animal rooms, shall not be worn outside of the work area, and shall be decontaminated before being laundered;

9.1.6 Gloves shall be worn when handling infected animals or other potentially infectious material;

9.1.7 All waste from work areas and animal rooms shall either be incinerated or decontaminated by a method, such as autoclaving, known to destroy bloodborne pathogens;

9.1.8 Vacuum lines must be protected with liquid disinfectant traps and high efficiency particulate air (HEPA) filters;

9.1.9 Extreme care shall be taken when using needles and syringes. Use of hypodermic needles and syringes is limited to injection and aspiration of liquids from laboratory animals and diaphragm bottles. A needle shall not be bent, sheared, or removed from the syringe following use. Do not recap needles. The needle and syringe shall be promptly

placed in a puncture-resistant container for disposal. Single-use, disposable needles and syringes are recommended;

9.1.10 A biosafety manual shall be prepared or adopted. Personnel shall be required to read and follow these procedures;

9.1.11 All spills shall be immediately contained and cleaned up (see Section 11.1). All spills or accidents that lead to an exposure incident shall be immediately reported to the laboratory director (see Section 12.1);

9.1.12 Certified biological safety cabinets and other appropriate containment devices shall be used for all activities with blood or other potentially infectious material that pose a threat of exposure to droplets, splashes, spills, or aerosols, and;

9.1.13 Each laboratory shall contain a readily-accessible facility for handwashing and an emergency eyewash facility.

9.2 HIV and HBV Production and Research Facilities (BL3)

In addition to the practices outlined in Section 9.1, standard microbiological practices plus strict adherence to biosafety level three (BL3) practices must be followed in all HIV and HBV production facilities:

9.2.1 Passage through two sets of doors shall be the basic requirement for entry into the work area. Doors shall be self-closing;

9.2.2 All surfaces in the facility shall be water resistant so that they can be easily cleaned;

9.2.3 The sink for handwashing shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area;

9.2.4 An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area, and;

9.2.5 A ducted exhaust-air ventilation system shall be provided. This system shall create a negative pressure in the work area. The exhaust must not be recirculated to any other area of the building.

10.0 HEPATITIS B VACCINATIONS

All employees who have occupational exposure to blood have the opportunity to receive a vaccination for the Hepatitis B virus. This immunization is offered at no cost to the employee through the Campus Health Service. The vaccine is offered after the employee has completed the required training unless the employee has previously received the complete Hepatitis B vaccination series (written verification is necessary), antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

Employees who refuse vaccination must sign the declination statement shown in Appendix D. If an employee initially declines HBV vaccination but at a later date, while still covered under the standard, decides to accept the vaccination, it will be made available at that time.

11.0 EMERGENCY PROCEDURES

Ensuring the health and safety of workers is of utmost importance in emergency situations involving blood or other potentially infectious material. First aid procedures should be carried out in all instances of bodily injury. The Campus Health Service on campus provides limited first aid and minor medical treatment to all university employees injured on the job. University Medical Center or the nearest emergency medical facility provides emergency medical care.

11.1 Environmental Exposure Incidents

Environmental exposure incidents such as spills of blood or other potentially infectious material should be cleaned up immediately by personnel trained in the hazards of bloodborne pathogens and familiar with this plan using the following procedures:

11.1.1 Wear gloves, eye protection, and the appropriate protective clothing;

11.1.2 Isolate the area of the spill. Limit foot traffic in the area;

11.1.3 Cover the entire spill area with absorbent paper towels;

11.1.4 Beginning at the edges of the spill, pour a 10% (vol/vol) solution of household bleach (sodium hypochlorite) or other appropriate disinfectant on the spill, working it inward toward the center of the spill;

11.1.5 Let the treated spill area sit for approximately 15 minutes before cleaning up the towels. The area may then be washed with a disinfectant soap solution.

RMS personnel are available to assist in spill clean-up if requested, but trained persons can usually take care of small spills unassisted.

11.2 Occupational Exposures

Occupational exposures to blood or other potentially infectious material such as needlesticks, splashes to the eyes or mucous membranes, or contact with broken skin should be rinsed immediately with copious amounts of water. All occupational exposures must be reported immediately to the employee's supervisor. To be eligible for a Worker's Compensation claim, reporting must include:

11.2.1 Filing a University of Arizona Supervisor's Report of Injury/Illness form (available at http://risk.arizona.edu/forms/SupervisorsReportofInjury06-05b.doc) and;

11.2.2 Filing a State of Arizona Report of Significant Work Exposure to Bodily Fluids form (IPS 52435) available at http://www.ica.state.az.us/Claims/Forms/Claims_Form_WorkExpToBodilyFluids.pdf.

If an employee chooses not to complete these reporting forms, that employee may jeopardize the availability of worker's compensation benefits from the Arizona Department of Administration, Risk Management Section.

12.0 POST-EXPOSURE EVALUATION AND FOLLOW-UP

Following a report of an exposure incident, the employee shall be provided a confidential medical evaluation and follow-up. This shall include documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred, identification and testing of the source individual's blood, collection and testing of the employee's blood, post-exposure prophylaxis (when medically indicated), evaluation of reported illnesses, and counseling. The Campus Health Service will provide this evaluation and follow-up at no cost to the employee.

12.1 Documentation of the Source Individual

The source individual will be identified if feasible unless prohibited by state or local law.

12.1.1 The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV, HCV, and HIV infectivity, and the results documented. When the source individual is known to be HBV-, HCV-, or HIV-positive, testing need not be repeated;

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

12.2 Collection and Testing of Exposed Individual's Blood

The exposed employee's blood shall be collected as soon as feasible after the exposure incident for HIV, HBV, and HCV serologic testing after consent is obtained. Testing must be completed as soon as feasible, but no later than 90 calendar days after the exposure incident. No later than eighteen months after the date of the exposure incident, the employee will be retested. If an employee chooses not to complete the testing, that employee may jeopardize the availability of worker's compensation benefits from the Arizona Department of Administration, Risk Management Division.

12.3 Healthcare Professional's Written Opinion

A written copy of the evaluating healthcare professional's written opinion shall be provided to the employee.

13.0 DOCUMENTATION AND RECORDKEEPING

The Department of Risk Management Services will keep documentation of employee compliance with training requirements and recordkeeping regarding exposure incidents. Campus Health Service will keep records of Hepatitis B vaccinations, post-exposure evaluations, and medical follow-up. All medical records shall be kept confidential and will not be disclosed to any person within or outside the workplace without the employee's express written consent except as may be required by law. Records shall be maintained for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

13.1 Sharps Injury Log

The Department of Risk Management and Safety will keep a log of all percutaneous employee injuries from contaminated sharps. The log will protect the confidentiality of the injured employee. The log will contain, at a minimum:

-the type and brand of device involved in the incident, if known;
-the department or work area where the exposure incident occurred; and
-an explanation of how the incident occurred.

APPENDIX A

STANDARD PRECAUTIONS FOR HEALTHCARE INFECTION CONTROL

Reference: *Guide to Infection Prevention for Outpatient Settings: Minimum Expectations for Safe Care*. May 2011. Centers for Disease Control and Prevention, Public Health Services, US Department of Health and Human Services, Atlanta, Georgia.

Standard Precautions are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where healthcare is delivered.

http://www.cdc.gov/HAI/settings/outpatient/outpatient-care-gl-standared-precautions.html

APPENDIX B

BIOSAFETY IN MICROBIOLOGICAL AND BIOMEDICAL LABORATORIES (BMBL) 5TH EDITION

Reference: *Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition*, December, 2009, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health.

Biosafety in Microbiological and Biomedical Laboratories (BMBL) has become the code of practice for biosafety—the discipline addressing the safe handling and containment of infectious microorganisms and hazardous biological materials. The principles of biosafety introduced in 1984 in the first edition of BMBL1 and carried through in this fifth edition remain steadfast. These principles are containment and risk assessment.

http://www.cdc.gov/biosafety/publications/bmbl5/

EFFECTIVELY USING BIOLOGICAL SAFETY CABINETS (BSC)

Reference: *Primary Containment for Biohazards: Selection, Installation and Use of Biological Safety Cabinets, December, 2009*, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health

http://www.cdc.gov/biosafety/publications/bmbl5/BMBL5_appendixA.pdf

General Suggestions:

•Keep your laboratory meticulously clean. Minimize storage of boxes and supplies, particularly near the BSC.

•Wash your hands thoroughly before and after working in your BSC. Wearing a clean lab coat and gloves while working in a BSC increases your safety and helps reduce contamination of research materials.

•The effectiveness of the BSC is a function of directional airflow (inward and downward through a high efficiency particulate air (HEPA) filter). Anything that disrupts the airflow pattern reduces cabinet effectiveness, such as rapidly moving your arms in and out of the BSC, people walking rapidly behind you, downdrafts from ventilation systems, and open laboratory doors.

•Understand how the cabinet works. Plan your work. Protect yourself, your research, and your coworkers.

Operational Suggestions:

1) Turn on the BSC. Wipe work surfaces with 70% Ethanol. Wipe off each item you need for your procedures and place in cabinet. Allow cabinet to run at least five minutes before beginning work.

a) Do not place objects over the front air intake grille. Do not block the rear exhaust grille.

b) Arrange materials to segregate contaminated and clean items. Minimize movement of contaminated items over clean ones. Remember…"work from clean to dirty."

c) Work should be performed at least six inches inside the hood.

2) Put on clean lab coat. Thoroughly wash your hands. Put on gloves, as appropriate.

3) Follow good microbiological techniques, such as holding open tubes and bottles as horizontal as possible.

a) Use convenient pipetting aids. Do not mouth pipette.

b) Use horizontal pipette discard pans containing appropriate disinfectant inside BSC. Do not use vertical pipette discard canisters on floor outside of cabinet.

c) It is not necessary to flame items. The flame creates turbulence in airflow and will compromise sterility. Heat buildup may damage the HEPA filters

4) If you need to remove items from the BSC or introduce new items, move your arms slowly in and out of the cabinet to minimize disruption of the airflow.

5) If you use a piece of equipment that creates air turbulence in the BSC, such as a centrifuge, homogenizer, or sonicator, place the equipment in the back third of the cabinet. Stop other work while equipment is operating.

6) Protect the building vacuum system from biohazards by placing a cartridge filter between the vacuum trap and the source valve in the cabinet.

7) Clean up all spills in the cabinet immediately. Wait 3-5 minutes before resuming work if procedures allow.

8) Remove all materials and wipe all interior surfaces of cabinet with 70% ethanol when you are finished. Let cabinet run 10 minutes before turning off. Examine the tray under the work surface, disinfecting and cleaning as necessary.

9) Discard waste materials appropriately (i.e. autoclave, biohazard waste container, etc.).

10) Remove lab coat and wash hands thoroughly before leaving laboratory.

APPENDIX C

UNIVERSITY OF ARIZONA
BIOHAZARDOUS/PATHOLOGICAL WASTE DISPOSAL PROCEDURES

DEFINITION OF WASTE STREAM

Biohazardous/Pathological waste is defined as animal and human pathogens, infectious animal bedding/feces, animal carcasses and tissue, and all disposable items contaminated with human blood or body fluids. Non-infectious waste such as regular animal bedding/feces, plant pathogens, agar and culture plates inoculated with non-pathogenic agents may be discarded into the regular trash. Wastes that have been autoclaved can also be disposed into the regular trash.

LABORATORY RESPONSIBILITIES

Laboratory personnel will be responsible for the packaging of biohazardous/pathological waste and for the transportation of such waste from their respective laboratories to the designated collection points. Packaging requirements are as follows: all waste will be double-bagged in 2 mil red bags (available from Campus Stores, Item no. 32075015). Both bags should be securely tied separately to prevent possible leakage. Sharps Containers must be sealed, but do not require bagging. A 44 or 90 gallon container for the red bags will be provided at each collection point. The containers are labeled "Biohazard" or "Infectious Waste." The weight of the full container must not exceed 75 pounds. When full, the container will be removed from the collection point and replaced with a clean, sanitized container. Red bags not placed in the designated container will not be removed. Cleanliness of the collection areas is the responsibility of the laboratory personnel.

RISK MANAGEMENT RESPONSIBILITY

University of Arizona Department of Risk Management Services (RMS) will transport full biohazardous/pathological waste containers from the collection points to the central accumulation point. Clean, sanitized waste containers will be returned to all collection points. RMS will coordinate training for all University personnel involved with the biohazard/pathological waste program. Training will be provided by RMS staff in conjunction with the contracted disposal company. Training will include information on personal protective equipment, designation, segregation, packaging and handling of contaminated waste. RMS staff will be available to assist laboratory personnel in rectifying any problems that may arise. Any questions should be addressed to the RMS office.

BIOHAZARDOUS/PATHOLOGICAL WASTE CONTAINER LOCATIONS

Shantz (Building # 38)
Room 110

Carl S. Marvel Laboratories (Building # 37)
Room 426

Biological Sciences East (Building # 43)
Room 13

Campus Health Center (Building # 95)
Rooms B103, A211

Biological Sciences West (Building # 88)
Room 252

Veterinary Sciences/Microbiology (Building # 90)
Rooms 113

McKale Center (Building # 96)
Room 123

Arizona Cancer Center (Building # 222)
Rooms 0966, 3932, 3966, 4932, 4966

Central Animal Facility (Building # 101)
Room 105

Life Sciences South (Building # 106)
Every Floor, Autoclave Rooms

Koffler (Building # 113)
Room 412

Arizona Health Sciences Center (Building # 201)
Rooms 1105, 1258A(University Animal Care)
3105, 3108
4123, 4221, 4309, 4344
5105, 5123, 5221, 5344
6104, 6109, 6123, 6221, 6316, 6344
7330, 7345
8345

Pharmacy (Building # 207)
Room 239

Arid Lands Research
Gould-Simpson (Building # 77)
Room 614

Biomedical Research Labs (Building # 209)
Rooms B104, C101

Aerospace/Mechanical Eng. (Bldg. # 119)
Room N317, N319B, N417A, N419A

Forbes (Building # 36)
Rooms 409, 425

Saguaro Hall (Building # 33)
Room 302

Life Sciences North (Building # 221)
Rooms 326, 411, 512, 532, 604

AZ Emergency Medicine Research Center
1824 E. Elm St.

Student Recreation Center (Building # 117)
Pro Shop

Keating/BIO5 (Building # 240)
Rooms 114, 202A, 318, 418

Employee Wellness (Building # 146)
Second Floor

Colon Cancer Prevention Clinic
(3950 S. Country Club, Suite 330)

Arizona Cancer Center (1430 E. Ft. Lowell)
Suite 101, 301, 304

Medical Research Building (Building #241)
Rooms 2, 234

Psychology (Building # 68)
Loading Dock Storage Room

Parker Agriculture Res. Ctr. (Building # 2019)
Rooms 117, N-126

Gittings (Building # 93)
Rooms 22E, 26, 52

Marley Building (Building # 107)
Rooms 332, 427, 527, 603, 611,

711, 717, 827

Abrams Clinic (Building # 204A)
1450 N. Cherry, West Trailer

APPENDIX D

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 (HBV) infection. I have been given the opportunity to be vaccinated with the 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.

_____

Signature

_____

Printed Name

APPENDIX E

29 CFR 1910.1030
BLOODBORNE PATHOGENS STANDARD

Reference: Occupational Safety & Health Administration, U.S. Department of Labor, (Standards – 29CFR)

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051