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I. LANDER UNIVERSITY EXPOSURE CONTROL PLAN

A. ESTABLISHMENT. This Exposure Control Plan has been established pursuant to the requirements of 29 CRF 1910-1030. The OSHA Bloodborne Pathogen Standard published December 6, 1991, finalized rules for protecting health and safety workers from occupational exposure to blood and certain other body fluids.

B. PURPOSE. The purpose of this Exposure Control Plan is to eliminate or minimize employee exposure to blood or other potentially infectious materials (OPIM). The Plan identifies tasks and procedures where occupational exposure to blood and certain body fluids can be reasonably anticipated and the positions whose routine duties include these tasks. The Plan describes engineering and work practice controls which have or will be implemented in order to significantly reduce the risks of employee contact with bloodborne pathogens. The Plan identifies procedures to provide for consistent, timely, appropriate, and confidential management of employees who sustain a significant occupational exposure to blood or body fluids.

C. ENFORCEMENT. The University will make every effort to be in compliance with the Standard. All University employees with anticipated exposure are expected to comply with this as with other OSHA standards and University policies. The immediate supervisor is responsible for day to day enforcement.

II. DEFINITIONS

For purposes of this Exposure Control Plan, the definitions of terms are defined in the Glossary.

III. SCHEDULE OF IMPLEMENTATION

A. IMPLEMENTATION. All elements of this Exposure Control Plan shall be implemented immediately, unless otherwise noted.

B. REVIEW. This plan shall be reviewed and updated at least annually. Certain elements of this plan may be updated more frequently if necessary.

C. COPY. A copy of this Plan shall be made accessible to all current and future employees of the University as requested.

D. AVAILABILITY TO OSHA. This plan shall be made available to the Assistant Secretary and the Director upon request.

IV. EXPOSURE DETERMINATION

An Employee Categorization Form has been used for exposure determination of Lander employees who have job classifications with potential occupational exposure to bloodborne pathogens. This exposure determination has been made without regard to the use by an employee of personal protective equipment (PPE).

A. **CATEGORY I.** The following is a list of job classifications in which employees in those have occupational exposure:

1. Athletic Trainers
2. Nursing Faculty
3. Staff Nurse
4. University Police Officers

B. **CATEGORY II.** The following is a list of job classifications in which employees have the potential for occupational exposure:

1. Faculty Laboratory Instructors
2. Physical Plant Custodians and Plumbers
3. PEES Faculty, Athletic Department Coaches
4. Campus recreation employees, employed by PEES Division or Student Affairs
5. Resident Assistants

C. **CATEGORY III.** All other employees.

D. **TASKS AND PROCEDURES.** The following is a list of tasks and procedures in which occupational exposure may occur at the University and that are performed by employees in job classifications listed in IV (A) above:

1. Cleaning of blood or OPIM
2. Collecting, handling, or disposing of blood or OPIM
3. Rendering first aid
4. CPR
5. Finger sticks
6. Assisting in emergency situations
7. Oral assessments
8. Affecting an arrest
9. Collecting evidence at a crime scene
10. Dealing with individuals in a hostile situation
11. Frisking or "patting down" a subject
12. Investigating a crime scene/preservation of evidence
13. Transporting a wounded subject

14. Wound dressing
15. Plumbing repairs
16. Housekeeping duties where potentially infectious materials are discarded, stored, or may be present.

Review/update of tasks and procedures will be done on an annual basis by the supervisor of the area who is responsible for safety and infection control training.

V. METHODS OF COMPLIANCE

The following methods of compliance must be observed at all times in order to insure that the risk of exposure to bloodborne pathogens is eliminated or kept to a minimum.

A. UNIVERSAL OR STANDARD PRECAUTIONS. Universal Precautions is a standardized approach to infection control. The concept of universal or standard precautions dictates that all human blood and certain other body fluids should be treated as though they contain HIV, UBV, or other bloodborne pathogens. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials (OPIM). Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

MATERIALS WHICH REQUIRE UNIVERSAL PRECAUTIONS:

- Blood
- Semen
- Vaginal fluids
- Pleural fluid
- Synovial fluid
- Any body fluid with visible blood
- Any unidentifiable body fluid
- Saliva from dental procedures

**** OTHER BODY FLUIDS THAT MAY CONTAIN VISIBLE OR HIDDEN BLOOD:

- Feces
- Nasal secretions
- Urine
- Sputum
- Vomitus
- Sweat

**** The above-mentioned body fluids can contain hidden blood. Extreme caution should be used in handling those materials.

WHAT IS AN OCCUPATIONAL EXPOSURE?

AN OCCUPATIONAL EXPOSURE INCIDENT OCCURS IF THE EMPLOYEE HAS EYE, MOUTH (OR OTHER MUCOUS MEMBRANE), NON-INTACT SKIN, OR PERCUTANEOUS (PENETRATING THE SKIN) CONTACT WITH BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL IN A WORK SITUATION OR IN THE PERFORMANCE OF A JOB DUTY.

****

MINIMIZING EXPOSURE: IF THERE IS AN EXPOSURE INCIDENT WITH BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL (OPIM):

♦**IMMEDIATELY** WASH THE EXPOSED AREA WITH SOAP AND WATER.

♦**EXPOSED AREA WAS IN THE MOUTH: RINSE WELL WITH WATER OR MOUTHWASH (WHICHEVER ISAVAILABLE).**

♦**IF EXPOSURE WAS IN THE EYES**: FLUSH WITH WARM WATER OR NORMAL SALINE, IF AVAILABLE. IRRIGATE COMPLETELY WITH WATER.

****See Skill Scan pages for ways to minimize exposure—pp 30-37.****

B. ENGINEERING AND WORK PRACTICE CONTROLS. The following engineering and work practice controls shall be used at this University in order to eliminate or minimize employee exposure. If an occupational exposure risk remains after institution of these controls, personal protective equipment (PPE) shall also be used.

1. REVIEW. These Engineering Controls and work practices shall be examined and maintained or replaced on an annual schedule to insure their effectiveness. These controls shall be reviewed and updated by the supervisor of each respective area or division.

2. HANDWASHING RULES. The University shall have the following rules regarding handwashing:

   a. The University has readily accessible handwashing facilities located in each building in rest room and patient care areas. Each University Police Patrol Car and each custodial closet is equipped with a PPE kit including antiseptic towelettes.

b. If handwashing facilities are not accessible or if hand-washing is not feasible, employees shall use an appropriate antiseptic towelette. If an employee uses antiseptic towelettes, hands shall be washed with soap and running water as soon as feasible thereafter.

c. Employees must wash their hands immediately or as soon as feasible after removal of gloves or other PPE.

d. Employees must wash their hands and any other skin with soap and water, or flush mucous membranes with water, immediately or as soon as feasible following contact of such body areas with blood or OPIM.

3. SHARPS. The University shall have the following rules regarding contaminated needles and other contaminated sharps:

a. Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted below.

b. Shearing or breaking of contaminated needles is prohibited.

c. Contaminated needles and other contaminated sharps shall not be recapped or removed unless it can be demonstrated that no alternative is feasible or that such action is required by a specific medical procedure.

d. Recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique. (Skill Scan 5 – Page 34)

e. Immediately or as soon as possible after use, reusable contaminated sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(1) Puncture resistant;
(2) Labeled or color-coded in accordance with Article IX of this Plan;
(3) Leak-proof on the sides and bottom; and
(4) In accordance with the requirements set for the for reusable sharps. (See Skill Scan Sheets – pp. 30-37)

f. Evidence at a crime scene. Materials, considered as sharps contaminated with blood or body fluids, and viewed as evidence of a crime, shall be collected at the discretion of the public safety officer in a manner meeting both the rules of evidence preservation and this standard.

g. Any workplace exposure from contaminated sharps must be recorded on the sharps injury log (Appendix L of this plan)

4. EATING, DRINKING, SMOKING, ETC. In work areas where there is reasonable likelihood of exposure to blood or OPIM, employees are not to eat, drink, apply cosmetics or lip balm, smoke or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or OPIM are present.

5. BLOOD EXPOSURES TO BE MINIMIZED. All procedures involving blood or OPIM shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances. Specifically, mouth pipetting/ suctioning of blood or OPIM is prohibited. Other specific procedures involving blood or OPIM will be communicated to employees handling such material as part of their initial and ongoing training.

6. <u>STORAGE, TRANSPORT AND SHIPPING OF BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIALS.</u>

   a. Specimens of blood or OPIM shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

   b. The University will utilize universal precautions in the handling of all specimens. Before the specimen is transported or shipped it shall be labeled as indicated in Article IX of this Plan.

   c. All containers for storage, transport, or shipping shall be closed prior to being stored, transported, or shipped except where preservation of evidence would be undermined and the officers not in danger of exposure to blood or OPIM.

   d. If the outside of the container for storage, transport, or shipping becomes contaminated, that container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and which is labeled or color-coded in accordance with Article IX of this Plan.

   e. If a specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture resistant in addition to the other requirements of this section.

7. CONTAMINATED EQUIPMENT. The University policy will be that any equipment which may become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated as necessary.

a. A readily observable label prepared in accordance with Article IX of this Plan shall be attached to the equipment stating which portions remain contaminated.

b. Information regarding contaminated equipment must be conveyed to all affected employees, the servicing representative, and/or the manufacturer as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

8. PERSONAL PROTECTIVE EQUIPMENT (PPE). It is University policy to provide, at no cost to the employees, appropriate and accessible PPE when there is occupational exposure. Personal protective equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be PPE. Appropriate PPE does not permit blood or OPIM to pass through or to reach employees work clothes, street clothes or undergarments, skin, eyes, mouth or mucous membrane under normal conditions of use and for the duration of the time when protective equipment is needed. Some appropriate PPE is, but is not limited to: gloves, laboratory coats, face shields, masks, eye protection, mouth pieces, resuscitation bags, pocket masks, or other ventilation devices.

a. All employees must use appropriate PPE, unless an employee temporarily and briefly declines to use PPE when under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance
its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the employee or co-workers. If an employee makes this judgment, the circumstances shall be investigated and documented and reported to the supervisor in order to determine whether changes can be instituted to prevent such occurrences in the future.

b. Accessibility: Appropriate PPE in appropriate sizes is readily accessible at the work site or issued to the employee. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives are readily accessible to those employees who are allergic to the gloves normally provided.

c. All PPE will be repaired or replaced as necessary to maintain its effectiveness at no cost to the employee.

d. Employees are required to remove all PPE prior to leaving the

work area.

e. Contaminated garment(s): If a garment(s) is penetrated by blood or OPIM, the garment(s) shall be removed immediately or as soon as feasible.

f. Once removed, the PPE shall be placed in the designated container for storage, washing, decontamination, or disposal.

9. GLOVES. Gloves shall be worn where it can be reasonably anticipated that the employee will have hand contact with blood, OPIM, mucous membranes, and non-intact skin. Gloves shall also be worn when handling or touching contaminated items or surfaces.

STUDIES HAVE SHOWN THAT GLOVES PROVIDE A BARRIER BUT NEITHER LATEX NOR VINYL GLOVES ARE COMPLETELY IMPERMEABLE. DISINFECTING AGENTS MAY CAUSE DETERIORATION OF THE GLOVE MATERIAL, AND WASHING WITH SURFACTANTS (SOAP) CAN RESULT IN ENHANCED PENETRATION OF LIQUIDS IN TO THE GLOVE. FOR THIS REASON, GLOVES MAY NOT BE WASHED AND REUSED.

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

b. Disposable (single use) gloves shall not be washed or decontaminated for re-use.

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

10. MASKS, EYE PROTECTION, AND FACE SHIELDS. It is University policy that masks, in combination with eye protection devices, such as goggles or glasses with solid side shields shall be worn whenever splashes, spray, spatter, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

11. OTHER PERSONAL PROTECTION EQUIPMENT. Gowns, aprons, lab coats, and other protective body clothing will be worn as appropriate depending on the task and degree of exposure anticipated.

12. HOUSEKEEPING. **All work areas shall be maintained in a clean, sanitary condition.** The University will determine and implement an appropriate written schedule for cleaning and method of decontamination for each area where blood or OPIM is present. A review will be conducted at least annually. The schedule and method will be posted in a conspicuous place and shall include at least the following:

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

    b. Contaminated work surfaces within clinical sites, or University vehicles shall be decontaminated with an appropriate disinfectant:
        - After completion of procedures;
        - Immediately or as soon as feasible when surfaces are overtly contaminated;
        - After a spill of blood or OPIM;
        - At the end of the work shift if the surface may have become contaminated since the last cleaning.

    c. Protective coverings used to cover equipment and environmental surfaces shall be removed and replaced as soon as feasible when they become overtly contaminated.

    d. All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or OPIM shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

    e. Broken glass which may be contaminated shall not be picked up directly with the hands. The employee shall use mechanical means such as brush and dust pan, tongs, or forceps. These tools must be properly decontaminated or discarded after use and the broken glass placed in the nearest sharps disposal container. (See Skill Scan 3 – p. 32)

    f. Reusable contaminated sharps shall not be stored or processed in a manner that requires the employee or another employee to reach by hand into the containers where the contaminated sharps have been placed.

13. REGULATED WASTE. (See Appendix A) The University shall have the following procedures regarding regulated waste:

    a. Contaminated sharps (other than items collected as evidence) shall be discarded immediately or as soon as feasible in containers that

are sealable, puncture-resistant, leak proof on sides and bottom, and labeled or color-coded in accordance with Article IX of this Plan.

b. During use, containers for contaminated sharps shall 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, maintained upright throughout use, replaced routinely, and not be allowed to become overfilled.

c. When moving containers of contaminated sharps from the area of use, the container shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. The preservation of evidence and system of chain of custody will prevail with law enforcement personnel. The container shall be placed in a secondary container if leakage is possible. The second container shall be sealable, constructed to contain all contents and prevent leakage during handling, storing, transport, or shipping, and shall be labeled or color-coded according to Article IX of this Plan.

d. Re-usable containers shall not be opened, emptied, or cleaned manually or in any manner which would expose the employee or other employees to the risk of percutaneous injury.

14. OTHER REGULATED WASTE CONTAINMENT. Regulated waste other than contaminated sharps shall be placed in containers which are:

a. Closeable;

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

c. Labeled or color-coded in accordance with Article IX of this Plan; and

d. Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

15. OTHER REGULATED WASTE - Outside Contamination. If outside contamination of the regulated waste container occurs, it shall be:

a. Placed in a second container;

b. The second container shall be

(1) Closeable;
(2) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;
(3) Labeled or color-coded in accordance with Article IX of this Plan;
(4) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

16. REGULATED WASTE DISPOSAL - Compliance with Law. The disposal of all regulated waste generated by the University shall be in accordance with the applicable regulations of the United States and the State of South Carolina. (See Appendix A)

17. CONTAMINATED LAUNDRY. The University shall have the following procedures for handling contaminated laundry:

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

    b. Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of the use.

    c. Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with Article IX of this Plan.

    d. Wet contaminated laundry shall be placed and transported in bags or containers which prevent soak through or leakage of fluids to the exterior.

    e. Protective gloves and other appropriate PPE shall be worn when any employee is in contact with contaminated laundry.
    f. Any contaminated laundry which is shipped off-site to a second facility which does not utilize universal precautions must be placed in bags or containers which are labeled or color-coded in accordance with Article IX of this Plan.

VI. HIV AND HBV RESEARCH AND LABORATORY FACILITIES. (not applicable)

VII. HEPATITIS B VACCINATION

A. HBV VACCINE AVAILABLE. The Hepatitis B vaccine and vaccination series will be made available to all employees who have a reasonable potential for an occupational exposure to blood or OPIM at no cost to the employee.

B. HEPATITIS B VACCINATION. Hepatitis B vaccination shall be made available to all employees who have a potential risk for occupational exposure, unless the employee has previously received the Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons, after the employee has received the training set forth in this Plan and within ten (10) working days of initial assignment (Appendix B). Employees who decline the vaccination must sign a copy of the waiver attached to this Plan. (Appendix C)

The Office of Human Resources will initiate Appendix I, Employee Categorization Form, in accordance with established categories in Article IV of this Plan. A copy of this form will be forwarded to the Safety Director who will in turn obtain the signature of the employee's supervisor. Each division is responsible for getting the new employee to Health Services for initial Bloodborne Pathogens training and an explanation of the Hepatitis B vaccine within 10 days of job assignment. Documentation of initial training and Hepatitis B vaccination status will be forwarded to the Safety Director.

VIII. POST-EXPOSURE INCIDENT EVALUATION AND FOLLOW-UP.

A. EXPOSURE INCIDENT FOLLOW-UP AVAILABLE. **An exposure incident occurs if the employee has eye, mouth, or other mucous membrane, non-intact skin or percutaneous (penetrating the skin) contact with blood or other potentially infectious material in a work situation, or in the performance of their job duty.** Post- exposure evaluation or follow-up will be conducted for all employees who have had an exposure incident, and will be conducted in accordance with the following:

1. Made available at no cost to the employee.

2. Made available within the time frame currently recommended by the Centers for Disease Control. (CDC 1996 MMWR 45(22): Recommends that immediate evaluation is essential in case chemoprophylaxis (medications) is indicated. **Chemoprophylaxis optimally should begin within two hours post-exposure.**

3. Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed health care professional. (Appendix D, E, F)

4. Provided according to the recommendations of the U.S. Public Health Service current at the time each evaluation and procedure takes place.

5. All laboratory tests will be conducted by an accredited laboratory at no cost to the employee.

B. PERCUTANEOUS/MUCOUS MEMBRANE EXPOSURE PROTOCOL.

FOLLOWING AN OCCUPATIONAL EXPOSURE TO BLOOD OR BODY FLUIDS THROUGH SHARP OBJECT INJURY OR MUCOUS MEMBRANE CONTACT:

1. IMMEDIATE SITE MANAGEMENT

a. Skin/sharp object injury – cleanse immediately with warm soapy water.
b. Mouth – Rinse mouth well with copious amounts of water or rinse well with mouthwash.
c. Eyes – Flush with warm water or normal saline (if available). Irrigate completely for at least 15 minutes.

2. REPORT INJURY TO SUPERVISOR.

3. COMPLETE WRITTEN REPORT OF THE INJURY.
Use Appendix D of Lander University Bloodborne Pathogen Exposure Control Plan.

4. REPORT TO APPROPRIATE MEDICAL FACILITY FOR FOLLOW-UP. THIS SHOULD BE DONE IMMEDIATELY AS TIME IS CRITICAL AND PROPHYSAXIS SHOULD BEGIN WITHIN 2 (TWO) HOURS. (As outlined in Appendix D)

5. SUPERVISOR REPORT.
The supervisor will contact the Office of Human Resources, and the designated coordinator of the committee.

C. POST-EXPOSURE EVALUATION AND FOLLOW-UP. Following a report of an exposure incident, the employee will immediately be given a confidential medical evaluation and follow-up, including at least the following elements:

1. Documentation of the routes of entry and the circumstances surrounding the exposure incident.

2. Identification and documentation of the source individual, if feasible and if allowed by state or local law.

3. Testing of the source individual's blood in order to determine HBV and HIV infectivity, if consented to. (NOTE: If consent is not obtained, the employee should consult a supervisor immediately to

determine if probable cause exists to implement further action. Refer to S.C. Statute 44-29-230 in Appendix F).

4. If the source individual is already known to be infected with HBV or HIV, source testing is not required. If the exposed individual has documentation of immunity for HBV, then source testing for Hepatitis B is not required.

5. Collection and testing of the employee's blood for HBV and HIV (with consent). If the employee consents to baseline blood collection but does not give consent at that time for HIV serologic testing, the blood sample shall be retained by the state lab 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 possible.

6. Counseling of the exposed employee to inform the employee of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual. (Appendices D, E, and F)

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

8. Medical records will be maintained by the medical provider. (Appendix K)

D. IMPLEMENTATION. Arrangements for implementation for the post-exposure follow-up will be made by the Staff Nurse through contract, or as appropriate, with medical professionals in the area. (Appendix J)

E. INFORMATION PROVIDED TO THE HEALTH CARE PROFESSIONAL. Professionals (Staff Nurse) responsible for the employee's Hepatitis B vaccination and for evaluating an employee after an exposure incident (personal physician/Montgomery Center) shall be provided with the following information by the Office of Human Resources:

1. A copy of the Bloodborne Pathogen Standard.

2. A description of the exposed employee's duties as they relate to the exposure incident.

3. Documentation of the routes of exposures and circumstances under which exposure occurred (Appendices D and E forms) will be provided to the evaluating physician, or health care professional who performs the post-exposure evaluation and follow-up.

4. Results of the source individual's blood testing, if available.

5. All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

F. HEALTH CARE PROFESSIONAL'S WRITTEN OPINION.

1. The exposed employee will be given a copy of the evaluating health care professional's written opinion within fifteen (15) days of the completion of the evaluation. (Appendices G and K)

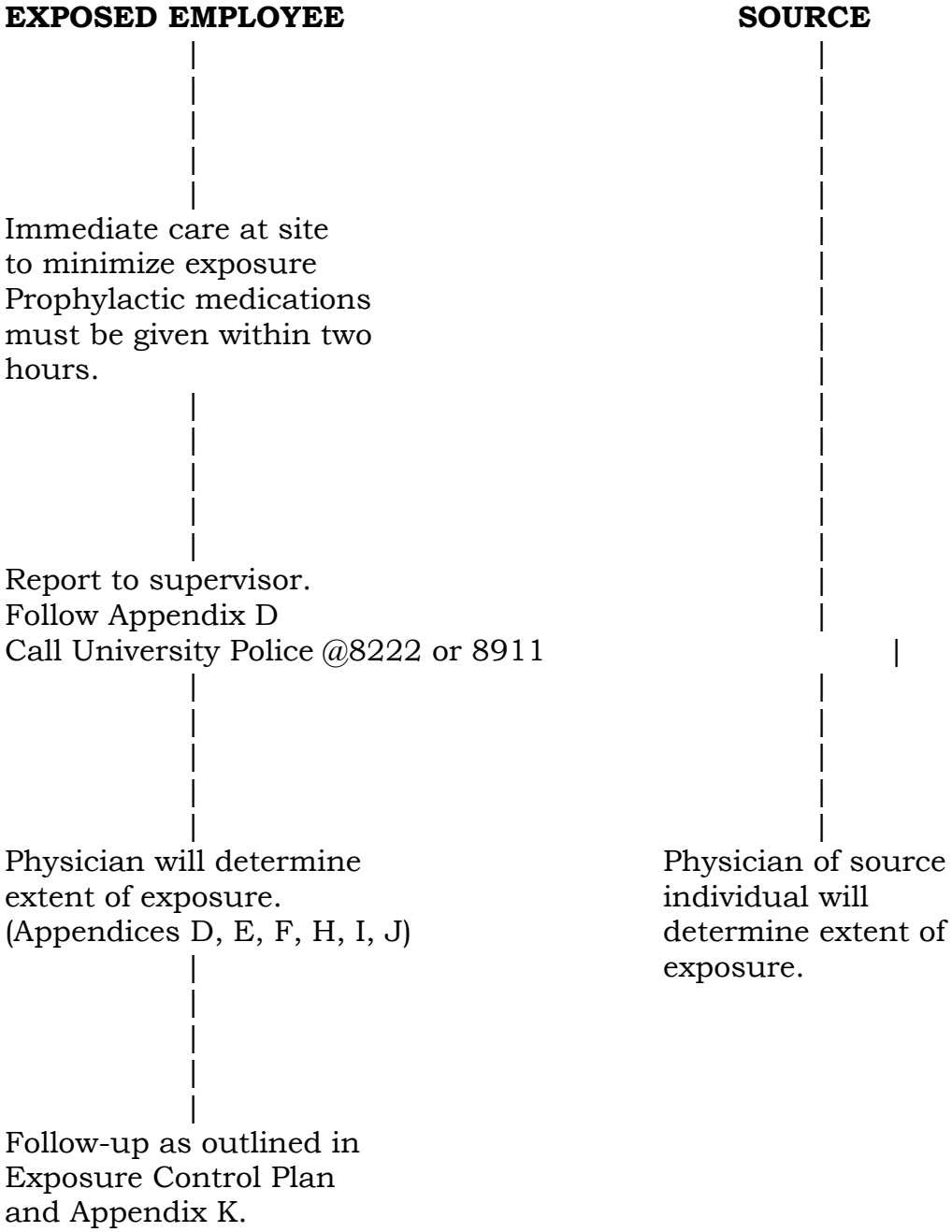
2. The written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for the employee, and if the employee has received such vaccination.

3. The health care professional's written opinion for post-exposure evaluation and follow-up shall be limited to indicating that the employee has been informed of the results of the evaluations, and that the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.

4. All other findings or diagnoses shall remain confidential and shall not be included in the health care professional's written opinion that will be held in the Office of Human Resources.

5. All medical records required under this section shall be kept in accordance with Article X of this Plan.

BLOODBORNE PATHOGEN EXPOSURE



IX. COMMUNICATION OF HAZARDS TO EMPLOYEES.

A. LABELS AND SIGNS. Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood, or OPIM, and other containers used to store, transport, or ship blood or OPIM, unless they are clearly labeled as being subject to universal precautions.

1. Labels required by this section shall include the universal biohazard symbol and the legend BIOHAZARD.

2. These labels shall be fluorescent orange or orange-red, with lettering or symbols in a contrasting color.

3. Required labels will be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

4. Red bags or red containers may be substituted for labels.

5. Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from these labeling requirements.

6. Individual containers of blood or OPIM that are placed in a labeled container during storage, transport, shipment, or disposal are exempted from the labeling requirement.

7. Labels required for contaminated equipment shall be in accordance with this section and shall also state which portions of the equipment remain contaminated.

8. Regulated waste that has been decontaminated need not be labeled or color-coded.

B. SIGNS REQUIRED FOR HIV AND HBV RESEARCH LABORATORY AND PRODUCTION FACILITIES. (not applicable)

C. INFORMATION AND TRAINING. All employees with occupational exposure must participate in a training program which will be provided at no cost during working hours. Training shall be coordinated by the Safety Director or designated coordinator as follows:

1. Within 10 (ten) days of initial assignment to tasks where occupational exposure may take place.

2. Within ninety (90) days after the effective date of the S.C.

Department of Labor's Bloodborne Pathogens Standard - 29 CFR 1910.1030.

3. Annually thereafter.

4. For those employees who have received training on bloodborne pathogens in the year preceding the effective date of this Plan, only training with respect to the provisions of this Plan and the Bloodborne Pathogen Standard which were not included may be provided.

5. Annual training for all employees shall be provided within one year of their previous training period.

6. Additional training will be given to an employee when changes to the employee's duties, such as modification of tasks or procedures or institution of new tasks or procedures, are made which will affect the employee's occupational exposure.

7. Training specific to jobs in various areas within the University will be conducted by the designated trainer(s) for that specific area.

D. ELEMENTS OF THE TRAINING PROGRAM. The training program shall cover all elements of the Standard and contain the elements listed below. Each employee will have an opportunity for interactive questions and answers with the person conducting the training session. The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the employee's work area. The trainer will be knowledgeable about the following issues:

1. A general explanation of the epidemiology and symptoms of bloodborne diseases.

2. An explanation of the modes of transmission of bloodborne pathogens.

3. Information on the hepatitis B vaccine and shall include data on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge to the employee.

4. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM.

5. An explanation of the use and limitation of methods that will prevent or reduce exposure including appropriate engineering controls, work practice controls, and PPE.

6. Information on the types, proper use, location, removal, handling, decontamination and disposal of PPE.

7. An explanation of the basis for selection of PPE.

8. Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM.

9. An explanation of the procedure to follow if an exposure incident occurs including the method of reporting the incident and the medical follow-up that will be made available.

10. Information on the post-exposure evaluation and follow-up following an exposure incident.

11. An explanation of required signs and labels required by Article IX of this Plan.

*12. How the employee can obtain an accessible copy of the Bloodborne Pathogen Standard and an explanation of its contents.

*The employee may obtain a copy of the Bloodborne Pathogen Standard and the Lander University Exposure Control Plan from the Office of Human Resources.

E. ADDITIONAL TRAINING FOR EMPLOYEES IN HIV AND HBV LABORATORIES AND PRODUCTION FACILITIES. (not applicable)

X. RECORDKEEPING

A. MEDICAL RECORDS. Employee medical records shall be kept by the health care provider who is contracted to handle exposure incidents. Incident reports and Hepatitis B vaccination status, and any other records deemed appropriate, will be kept by the Safety Director in accordance with the following:

1. The University shall establish and maintain an accurate record for each employee with occupational exposure. This record shall include:

   a. The name and social security number of the employee;

   b. A copy of the employee's Hepatitis B vaccination status, including the dates of all the Hepatitis B vaccinations;

c. Any medical records relative to the employee's ability to receive vaccination (kept by MCFM);

d. A copy of all results of examinations, medical testing, and the follow-up procedures;

e. The employer's copy of the health care professional's written opinion; and,

f. A copy of the information provided to the health care professional.

2. All employee medical records will be kept confidential and shall not be disclosed or reported, except with the employee's expressed written consent to any person within or outside the work place, except as required by the Bloodborne Pathogen Standard or as may otherwise be required by law. (The employee medical records shall be kept for at least the duration of the employee's employment plus thirty (30) years. These medical records will be kept by the contracted medical provider.)

B. TRAINING RECORDS. Employee training records shall be kept by the area trainer and by the Safety Director. It is the responsibility of the area supervisor to arrange for annual training, to keep records of training content and attendance, and to forward a copy of the documents to the Safety Director.

Employee training records shall include the following information:

1. The dates of the training sessions.

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

3. The names and qualifications of the persons conducting the training. Appendix H.

4. The names, social security numbers, work locations, and job titles of all persons attending the training sessions.

5. Training records shall be maintained for three (3) years from the date on which the training occurred.

C. AVAILABILITY. In the event of an inspection, all records required to be maintained by this Article X shall be made available upon request to the Assistant Secretary and the Director for examination and copying, upon request. In addition, employee training records required by this Article X

shall be provided, upon request, for examination and copying to employees, upon request. Employee medical records required by this Article X shall be provided upon request for examination and copying to the subject employee and to anyone having written consent of the subject employee. The Lander University Safety Director is responsible to maintain and provide copies of said records and documents to appropriate requesting parties.

D. DISTRIBUTION. A copy of the Lander University Bloodborne Pathogen Exposure Control Plan shall be distributed by the Office of Human Resources to all appropriate supervisors, trainers, committee members, and other individuals. Employees requesting a copy of the plan should be directed to the Office of Human Resources.

XI. EFFECTIVE AND REVIEW DATES.

A. BLOODBORNE PATHOGEN STANDARD. The University Pathogen Standard is effective on August 4, 1992.

B. PLAN. (ADDED) This Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks, and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of the plan shall also:

1) reflect changes in technology that eliminated or reduces exposure to bloodborne pathogens; and
2) document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
3) Shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identifications, evaluation, and selection of effective engineering and work practices and should document the solicitation in the Exposure Control Plan.

C. TRAINING AND RECORD KEEPING REQUIREMENTS. The Training and Recordkeeping Requirements found in this Plan shall be implemented a month after approval. Each covered employee will receive refresher training annually by the designated trainer in each specific area. Records regarding training will be kept in accordance with specifications contained in Appendix H – Training Documentation Form – Initial and Annual of this plan.

NOTE: Employees may use the web based training module as a means of annual training with the approval of their area supervisor. Departments utilizing web training must conduct a lecture based annual training session every third year.

D. TRANSFER OF RECORDS (ADDED) If Lander University should cease to do business and there is no successor employer to receive and retain the

records for the prescribed period, the employer shall notify the Director at least three months prior to their disposal, and transmit them to the Director, if required by the Director to do so, within that three month period.

E. SHARPS INJURY LOG(ADDED) The University Safety Director will maintain a sharps injury log in such a manner to protect confidentially of the injured employee. The log shall contain the following 1)Type and brand of device. 2) Department where injury occurred. 3) Explanation of how incident occurred.

XII. DIVISIONAL/DEPARTMENTAL RESPONSIBILITIES. This plan is Lander University's response to OSHA mandates. Each division with employees classified as Category I or Category II (Article IV) is responsible to have a plan which addresses all aspects of occupational exposure and safety issues unique to each specific area. Each said division must design safe work practice initiatives and must create incident follow-up procedures that are within the guidelines of this plan. Each division is responsible to provide annual training appropriate for that respective area. Responsibility for compliance rests with the division supervisor or department head.

GLOSSARY

ASSISTANT SECRETARY: The Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

BLOOD: Human blood, human blood components, and products made from human blood.

BLOODBORNE PATHOGENS: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

BLOODBORNE PATHOGEN STANDARD: The regulations set forth in 29 CFR 1910.1030.

CFR: Code of Federal Regulations

CLINICAL LABORATORY: A workplace where diagnostic or other screening procedures is performed on blood or OPIM.

CONTAMINATED: The presence or the reasonably anticipated presence of blood or other potentially infectious material on an item or surface.

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

CONTAMINATED SHARPS: Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

CYTOTOXIN: An antibody or toxin that attacks the cells of particular organs.

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

DERMAL: Pertaining to or affecting the skin.

DERMATITIS: Inflammation of the skin.

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

EMPLOYER: Lander University

ENGINEERING CONTROLS: Controls that isolate or remove the bloodborne pathogens hazard from the workplace.

EPIDEMIOLOGY: The study of contagious disease transmission and its patterns.

EQC: Environmental Quality Control.

ERYTHEMA: The reddening of the skin.

ETIOLOGY: Study of the causes of disease.

EXPOSURE: Contact with a substance through inhalation, ingestion, injection, or absorption through the skin.

EXPOSURE INCIDENT: A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

HANDWASHING FACILITIES: A facility providing an adequate supply of running potable water, soap, and single use towels or hot air drying machines; or, antiseptic towelettes when in the field.

HAZARD: The ability of a condition, material, or procedure to cause harm.

HCS: Hazard Communication Standard (HazComm)

HEMOTOXIN: A poison that attacks a specific organ.

HEPATOTOXIN: A cytotoxin specific for liver cells.

HBV: Hepatitis B virus.

HIV: Human Immunodeficiency Virus.

IDLH: Immediately Dangerous to Life and Health

IRRITANT: An agent that, when used locally, produces more or less local inflammatory reaction.

LICENSED HEALTH CARE PROFESSIONAL: A person whose legally permitted scope of practice allows him/her to independently perform the activities involving HBV vaccination and post-exposure evaluation and follow-up.

MCH: Maternal and Child Health.

MSDS: Material Safety Data Sheet

MUTAGEN: Any agent which causes genetic characteristics to change.

MWI: Medical Waste Incineration

MWTA: Medical Waste Tracking Act

NEPHROTOXIN: A toxic that damages the kidneys.

NEUROTOXIN: A toxin that attacks nerve cells.

NON-INTACT SKIN: Skin which is broken, chapped, abraded, weeping or having rashes or eruptions.

ORGANIC: Pertaining to or derived from animal or vegetable forms of life.

OSHA: Occupational Safety and Health Administration - refer to the S.C. Department of Labor.

OCCUPATIONAL EXPOSURE: Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

OTHER POTENTIALLY INFECTIOUS MATERIALS (OPIM): Any unfixed tissue or organ (except intact skin) from a human (living or dead); and HIV OR HBV containing solutions such as: HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV**. Any body fluid that is not identifiable shall be considered potentially infectious material.** The following

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

PARENTERAL: Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

PATHOGEN: Organism able to cause disease.

PERSONAL PROTECTIVE EQUIPMENT (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard.

General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be PPE. Appropriate PPE does not permit blood or OPIM to pass through or to reach employees work clothes, street clothes or undergarments, skin, eyes, mouth or other mucous membrane under normal conditions of use and for the duration of the time when protective equipment is needed. Some appropriate PPE is, but is not limited to: gloves, gowns, laboratory coats, face shields, masks, eye protection, mouth pieces, resuscitation bags, pocket masks or other ventilation devices.

PLAN: This Exposure Control Plan.

PRODUCTION FACILITY: A facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

REGULATED WASTE: Liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

RESEARCH LABORATORY: A laboratory producing or using research laboratory-scale amounts of HIV or HBV but not in the volume found in production facilities.

SOURCE INDIVIDUAL: Any individual, living or dead, whose blood or OPIM may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

SQG: Small Quantity Generator For infectious Waste - less than 50 pounds per calendar month.

STD: Sexually Transmitted Disease.

STERILIZE: The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

TOXIC: Pertaining to, resembling, or caused by poison.

TOXICOLOGY: The study of the adverse effects of chemical or other agents on living organisms.

UNIVERSAL PRECAUTIONS: All human blood and certain body fluids are treated as if they are known to be infectious for HIV, HBV, or other bloodborne pathogens.

UNIVERSITY: Lander University

WORKPLACE PRACTICE CONTROLS: Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

OCCUPATIONAL EXPOSURE

WHAT IS AN OCCUPATIONAL EXPOSURE?

AN OCCUPATIONAL EXPOSURE INCIDENT OCCURS IF THE EMPLOYEE HAS EYE, MOUTH (OR OTHER MUCOUS MEMBRANE), NON-INTACT SKIN, OR PERCUTANEOUS (PENETRATING THE SKIN) CONTACT WITH BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL IN A WORK SITUATION OR IN THE PERFORMANCE OF A JOB DUTY.

EXPOSURE: WHAT TO DO:

MINIMIZING EXPOSURE: IF THERE IS AN EXPOSURE INCIDENT WITH BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIAL (OPIM):

-IMMEDIATELY WASH THE EXPOSED AREA WITH SOAP AND WATER.

-EXPOSED AREA WAS IN THE MOUTH: RINSE WELL WITH WATER OR MOUTHWASH (WHICHEVER IS AVAILABLE)

-IF EXPOSURE WAS IN THE EYES: FLUSH WITH WARM WATER OR NORMAL SALINE, IF AVAILABLE. IRRIGATE COMPLETELY WITH WATER.

****See Skill Scan pages for ways to minimize exposure.****

Updated 12-04-01

LANDER UNIVERSITY EXPOSURE CONTROL PLAN

APPENDIX A

SUMMARY - INFECTIOUS WASTE REGULATIONS

DISPOSITION OF INFECTIOUS WASTES

The definition of regulated waste as outlined in OSHA Bloodborne Pathogen Standard is encompassed within the definition of infectious waste of the Infectious Waste Management Regulation, R.61-105 except saliva in dentistry.

All other wastes meeting the definition as "regulated or infectious wastes" must be placed, stored, and maintained before and during transport in a rigid or semi-rigid, leak-proof container which is impervious to moisture. Bag liners shall be red or orange in color and have the universal biohazard symbol on them.

PACKAGING AND LABELING

Containers must have sufficient strength to prevent bursting and tearing during handling, storage, or transportation. The container should be appropriate for the type of waste being contained. Bulk liquids which cannot be disposed through sanitary sewer systems must be placed into plastic containers with solid bottoms.

DEFINITIONS AND DISPOSAL

1. An infectious waste is any used material which is generated:

- ♦ In the health care community in the diagnosis, treatment, immunization, or care of human beings;
- ♦ In research pertaining to the production of biologicals which have been exposed to human pathogens;
- ♦ In research using human pathogens; and which are not excluded in 2 below and which are listed below.

a. Sharps.

Any discarded article that may cause puncture or cuts, including but not limited to: needles, syringes, Pasteur pipettes, lancets, broken glass, and scalpel blades.

Sharps must be placed, immediately, or as soon as feasible, and maintained in rigid, leak-resistant, and puncture-resistant, containers which are secured tightly to preclude loss of the contents and which are specifically designed for the safe containment of sharps. Used sharps shall not be bent, recapped, or

removed. Shearing or breaking of contaminated needles is prohibited. Sharps containers must 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. Containers must be replaced routinely and not be overfilled; and placed into another if leakage is possible when sent off-site or if the outside of the container is contaminated.

b. Blood and Blood Products.

All waste unabsorbed human blood, or blood products, or absorbed blood when the absorbent is supersaturated, including but not limited to: serum, plasma and other components of blood, and visibly bloody body fluids such as suctioned fluids, excretions, and secretions.

Whole unabsorbed liquid blood and other liquids or semi-liquid body fluids should be carefully disposed of in biohazard containers. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances. After carefully pouring these into a utility sink (wearing appropriate personal protective equipment), flush with an *appropriate disinfectant to prevent colonization of the sink and trap.

***A ten (10%) percent bleach and water solution is an example of an inexpensive EPA approved decontamination solution.**

c. Other Waste.

Any other material designated by written generator policy as infectious, or any other material designated by a generator as infectious by placing the material into a container labeled infectious. Any solid waste which is mixed with infectious wastes becomes designated as infectious and must be so managed.

d. Infectious Waste Residues Resulting from Discharges.

Any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill of any infectious waste.

APPENDIX B

PROTOCOL FOR ADMINISTRATION OF HEPATITIS B VACCINE AND HEPATITIS B POST VACCINATION SEROLOGIC TESTING OF EMPLOYEES

Policy Statement: The hepatitis B vaccine is recommended for persons at risk of acquiring hepatitis B infection through occupational exposure. In case of an occupational percutaneous or permucosal exposure, post-hepatitis B exposure management is best accomplished if there is documentation of the employee's response to the primary three-dose hepatitis B vaccine series (i.e., responder or non-responder). Post-vaccination testing should be done one to two months after completion of the three-dose vaccine series to provide definitive information on response to the vaccine. Persons who do not respond to the primary vaccination series should complete a second three-dose series and be retested at the completion of the second vaccine series. Booster doses of hepatitis B vaccine are not considered necessary, and periodic serologic testing to monitor antibody concentrations after completion of the series is not recommended.
(MMWR, Vol. 46/No. RR-18, December 26, 1997)

Procedure:

1. Complete primary three-dose hepatitis B vaccine at appropriate intervals. The second and third doses should be given 1 and 6 months, respectively, after the first dose. Vaccine doses administered at longer intervals provide equally satisfactory protection, but optimal protection is not conferred until after the third dose. If the vaccine series is interrupted after the first dose the second and third doses should be given separated by an interval of 3-5 months. Persons who are late for the third dose should be given this dose when convenient.

2. Obtain blood 4 to 8 weeks after completion of series to check hepatitis B surface antigen (anti-HBs).

    a. Employee is a known responder with adequate antibody response if anti-HBs are greater than or equal to 10mIU/mL. No further testing or treatment is necessary, although a booster dose may be considered if an exposure occurs.

    b. Employee is a known non-responder with inadequate antibody response if anti-HBs are less than 10mIU/mL. A second three-dose series of hepatitis B vaccine is recommended. If retesting after the second series shows inadequate antibody response, the individual is considered to be HBV susceptible and should be counseled regarding precautions to prevent exposure to bloodborne pathogens, and the need to obtain the HBIG (Hepatitis B Immune Globulin – dose: 0.06 mL/kg IM) after a probable parenteral exposure. These individuals should also be evaluated to HBsAG (Hepatitis B surface antigen) to assess for possible chronic HBV infection.

LANDER UNIVERSITY EXPOSURE CONTROL PLAN
APPENDIX C

Important Information About Hepatitis B, Hepatitis B Vaccine, and Hepatitis B Immune Globulin

HEPATITIS B
1/31/92

Please Read This Carefully

WHAT IS HEPATITIS B?

Hepatitis B is an infection of the liver caused by the Hepatitis B virus (HBV). HBV is one of several types of viruses (infections) that can cause hepatitis. There is a vaccine that will prevent HBV infection.

Hepatitis B virus infection may occur in two phases. The acute phase occurs just after a person becomes infected, and can last from a few weeks to several months. Some people recover after the acute phase, but others remain infected for the rest of their lives. They go into the chronic phase and become "chronic carriers." The virus remains in their liver and blood.

Acute Hepatitis B usually begins with symptoms such as loss of appetite, extreme tiredness, nausea, vomiting, and stomach pain. Dark urine and jaundice (yellow eyes and skin) are also common, and skin rashes and joint pain can occur. Over half of the people who become infected with HBV never become sick, but some may later have long-term liver disease from their HBV infection.

About 300,000 children and adults in the U.S. become infected with the Hepatitis B virus each year. More than 10,000 of them need to be hospitalized and 250 die. Most of these deaths are from liver failure.

HBV is passed from one person to another in blood or certain body secretions. This may occur during sexual relations or when sharing things like toothbrushes, razors, or needles used to inject drugs. A baby can get HBV at birth from its mother. A doctor or nurse may get HBV if blood from an infected patient enters through a cut or accidental needle stick.

Those people infected with HBV who become "chronic carriers" can spread the infection to others throughout their lifetime. They can also develop long-term liver disease such as cirrhosis (which destroys the liver) or liver cancer.

WHO BECOMES A CHRONIC CARRIER OF HBV?

Of every 100 young adults who catch HBV, 6 to 10 become chronic carriers. Children who become infected with HBV are more likely to become chronic carriers than adults. Of every 10 infants who are infected at birth, up to 9 will become chronic HBV carriers. The younger a child is when the infection occurs, the more likely that child will become a carrier.

About one-fourth of Hepatitis B carriers develop a disease called "chronic active hepatitis." People with chronic active hepatitis often get cirrhosis of the liver, and many die from liver failure. In addition, they are much more likely than other people to get cancer of the liver. In the United States, about 4,000 Hepatitis B carriers die each year from cirrhosis, and more than 800 die from liver cancer.

HEPATITIS B VIRUS INFECTIONS IN CHILDREN

Each year 22,000 children are born to women who are carriers of HBV. In the past, 4,000-5,000 of these infants were born with HBV infection. Almost all of these infections can now be prevented. A pregnant woman can find out if she is infected with HBV by getting a simple blood test. If she is infected, she can protect her newborn infant from infection by getting the child immunized with Hepatitis B vaccine and Hepatitis B Immune Globulin (HBIG) as soon after birth as possible.

Certain groups of children are more likely to get HBV because they or their parents come from countries where HBV infection is much more common than in the United States. (These are countries in Asia, Africa, South America, the South Pacific and eastern and southern Europe.) It is very important that these children receive Hepatitis B vaccine at birth or at lease before they are one year old.

Why ALL Children Should Receive Hepatitis B Vaccine

Anyone can get HBV infection. In fact, about 1 out of every 20 people in the United States have been infected with HBV. Because of the serious liver disease, cancer, and death resulting from HBV infection, all infants in the United States should be vaccinated against this virus. This will protect them when they become teenagers and adults, and are most likely to catch Hepatitis B.

HEPATITIS B VACCINE AND HEPATITIS B IMMUNE GLOBULIN

Hepatitis B Vaccine

Hepatitis B vaccine is given by injection. Three doses, given on three different dates, are needed for full protection. Exactly when these three doses are given can vary. Infants can get the vaccine at the same time as other baby shots, or during regular visits for well child care. Your doctor or nurse will tell you when the three shots should be given.

The hepatitis B vaccine prevents HBV infection in 85%-95% of people who get all three shots. Studies have shown that in these people, protection lasts at least 10 years. Booster doses are not recommended at this time.

Who Should Get Hepatitis B Vaccine?

Infants

1. **Infants born to women who are infected with HBV -** Infants born to infected women or to women who are chronic HBV carriers should be given Hepatitis B vaccine and HBIG (see below) within 12 hours of birth. They should then get their

second and third vaccine doses at 1 and 6 months of age. If they don't get these shots, these infants will very likely be infected with HBV and become chronic carriers themselves. Pregnant women can find if they are infected with HBV by getting a simple blood test, which is now recommended as a routine part of their prenatal care.

2. **Infants born to healthy women (non-carriers of HBV)-**Vaccination during infancy and early childhood is recommended for all infants in the United States to prevent HBV infection and chronic HBV carriage. Infants should get their first dose of vaccine either at birth or at 1-2 months of age. The second dose can be given 1 to 3 months later, and the third dose between 6 and 18 months of age. Hepatitis B vaccine can safely be given at the same time as the other vaccines a child normally receives.

Special Childhood Populations

Immigrant and refugee children from parts of the world where HBV infection is common (Asia, Africa, South America, South Pacific and eastern and southern Europe) are at high risk of HBV infection. All immigrant and refugee children 7 years of age and younger should get hepatitis B vaccine.

Adults and Other Groups

Hepatitis B vaccine is also recommended for adolescents and adults at high risk of getting HBV infection. This includes 1) people who are exposed to blood or blood products in their work (health care workers or emergency care responders, for insurance); 2) clients and staff of institutions for the developmentally disabled, as well as clients and staff of group homes, where any o f the residents is a chronic carrier of HBV; 3) hemodialysis patients; 4) men who have sex with men; 5) users of injectable drugs; 6) people with medical conditions (such as hemophilia) who receive blood products to help their blood clot; 7) people who live with, or have sex with, HBV carriers; 8) people who have more than one sexual partner, or people who are treated for sexually transmitted diseases; and 9) people who travel to, or live in, parts of the world where HBV infections are common.

Hepatitis B vaccine is also recommended for people who have been exposed to HBV. This includes people who have never been vaccinated for hepatitis B, and who: (1) have an accident in which blood containing HBV enters their body through the skin or mucous membrane; or, (2) have sexual contact with someone with acute hepatitis B. In some cases, hepatitis B vaccine should be started at the same time as treatment with HBIG (see below).

Hepatitis B Immune Globulin (HBIG)

HBIG is often given along with hepatitis B vaccine to people who have been exposed to HBV. It gives protection from the virus for the first 1 to 3 months; then the vaccine takes over and gives long lasting protection. HBIG is made from human plasma (a part of the blood). Any viruses found in the blood are killed during its preparation, and no one has ever been known to get hepatitis B or AIDS or any other virus from HBIG. Most people need only one dose to protect them after exposure to HBV.

Who should get Hepatitis B Immune Globulin?

HBIG is recommended for the following people. (For most people, the first dose of hepatitis B vaccine should be given at the same time as the HBIG.)

Infants

1. ***Infants born to women who are infected with***

HBV – The infants should get one dose of HBIG and the first dose of vaccine within 12 hours of birth (see above).

2. ***Unvaccinated infants less than 12 months old whose mother (or primary caregiver) has acute hepatitis B***-- All infants less than 12 months can easily become HBV carriers after hepatitis B infection. Exposed infants who have not been vaccinated should get one dose of HBIG and begin the hepatitis B vaccine series. Infants who have already been vaccinated do not need HBIG.

Adults and Others

1. ***Persons accidentally exposed to blood or body fluids than may contain HBV***—Exposed persons who have not been vaccinated should get one dose of HBIG and begin the hepatitis B vaccine series. Exposed persons who have had hepatitis B shots may also need HBIG. A doctor or nurse should make that decision.

2. ***People having sexual contact with anyone who has acute hepatitis B***—These people should get a dose of HBIG within 14 days of the most recent sexual contact with anyone who has acute hepatitis B. They may also need to get hepatitis B vaccine.

POSSIBLE SIDE EFFECTS FROM HEPATITIS B VACCINE AND HBIG

The most common side effect of hepatitis B vaccination is soreness where the shot is given. Tenderness at the injection site has been reported in up to 46% of infants vaccinated. Of children who get the vaccine, 2% to 5% may get a fever greater than 102ºF or become irritable. When hepatitis B vaccine is given with other childhood vaccines, it does not make these mild reactions worse than would be seen with the other vaccines alone. HBIG has sometimes been associated with swelling and hives. As with any drug, there is a slight chance of allergic or more serious reactions with either the vaccine or HBIG. However, no serious reactions have been shown to occur due to the hepatitis B recombinant vaccines. (These are the ones currently in use.) a person cannot get hepatitis B or AIDS from a hepatitis B shot or from an HBIG shot.

Before recombinant vaccines were used in the United States, another type of hepatitis B vaccine (plasma-derived) was used. Surveillance showed that getting the first dose of plasma-derived hepatitis B vaccine may have been associated with the paralytic illness Guillain-Barré syndrome (GBS). However, 6the recombinant vaccine has not been shown to be associated with GBS.

PREGNANCY

Very little information is available about the safety of the vaccine or HBIG for unborn babies. If a pregnant woman gets an HBV infection, it can cause severe disease in the mother and chronic HBV infection in the newborn baby. On the other hand, both the vaccine and HBIG should be safe for the unborn baby because they contain no infectious material. Therefore, pregnant women who are at risk of HBV infection can be given both hepatitis B vaccine and HBIG.

QUESTIONS

If you have any questions about hepatitis B, HBIG, or Hepatitis B vaccine, please ask us now or call your doctor or health department before you sign this form.

REACTIONS

If the person who received HBIG and/or the vaccine gets sick and visits a doctor, hospital, or clinic during the 4 weeks after receiving the vaccine, please report it to:

LANDER UNIVERSITY
HEPATITIS-B VACCINE
INFORMED CONSENT FORM

I UNDERSTAND THAT:

1. Injection with the Hepatitis-B vaccine does not guarantee that I will become immune to Hepatitis-B disease and that the vaccine may not be effective if I am already incubating the Hepatitis-B virus.
2. The duration of immunity is unknown at this time and I may require a booster at a later date dependent upon future recommendations.
3. The vaccine only protects against Hepatitis-B.
4. Side effects may occur and I do not hold Lander University Student Health Services (LUSHS) responsible for any side effects that may occur. These include, but may not be limited to: a) tenderness, redness, swelling at the injection site, b) low-grade fever, c) rash, d) nausea, e) joint or muscle pain, f) headache or mild fatigue.
5. There are no well-controlled studies in pregnant women receiving the Hepatitis-B vaccine, and if I should become pregnant I will notify LUSHS, and I will consult with my physician regarding continuation of the series.

TO THE BEST OF MY KNOWLEDGE, I:

1. **DO NOT** have an allergy to yeast mold, thimerosol, or mercury.
2. **DO NOT** have an elevated temperature or signs/symptoms of infection.
3. **DO NOT** have an immunodeficiency.
4. **AM NOT** taking chemotherapy or immunosuppressive therapy.
5. **AM NOT** pregnant or breast feeding.

I consent to a series of injections of Hepatitis-B vaccine according to LUSHS policies and procedures. I have been provided with education regarding the Hepatitis-B vaccine and the general risks and benefits associated with this vaccination. I have been informed of the risks associated with refusal to take the Hepatitis-B vaccine.

I have been informed of the possible side effect and contraindications of the vaccine.

I have voluntarily chosen to receive these vaccinations and understand that I may withdraw consent at any time.

Date:_____
Signature_____

Vaccination signature and dates:

1._____Date_____Lot #_____

2._____Date_____Lot #_____

3._____Date_____Lot #_____

Response titer:_____ (Drawn 1-2 months after completion of series)

LANDER UNIVERSITY EXPOSURE CONTROL PLAN

APPENDIX C

HEPATITIS B VACCINE DECLINATION FORM (MANDATORY)

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

Date:_____ Employee
Signature_____

Date:_____ Supervisor
Signature_____

LANDER UNIVERSITY EXPOSURE CONTROL PLAN

APPENDIX D

LANDER UNIVERSITY POLICY AND PROCEDURE FOR POST-EXPOSURE PROTOCOL

POLICY: To provide consistent, timely, appropriate, confidential management of employees who sustain a significant occupational exposure to bloodborne pathogens.

PROCEDURE:

1. At the time of exposure (*as defined on Page 4 of the Lander University Exposure Control Plan)* the responsibility of the employee/employers is to immediately cleanse and evaluate the exposure (*Page 4 of the Exposure Control Plan).*
2. The Immediate Supervisor must:
   A. Make the employee aware of necessary protocol for the initiation of treatment, including chemoprophylaxis, **which must begin within 2 (two) hours of exposure.**

   B. Identify source individual and obtain written consent for source blood testing.

   C. Notify the Office of Human Resources and the Office of Student Health Services, so that immediate action can be taken to begin post-exposure treatment. If the incident occurs during a time that these offices are closed, contact University Police for assistance.
3. During normal working hours, an appointment will be made with the Montgomery Center for Family Medicine to provide medical attention for the exposed employee, and for lab work to be done on the source individual. **This should be done immediately to comply with the two hour treatment recommendation.**

4. After working hours, notify University Police, who will notify the Montgomery Center physician on call, so that **immediate treatment can begin through the Emergency Room of Self Regional Hospital.**

5. Lander University must ensure that the health professional evaluating the employee after an exposure incident is provided the following information:
   A. A copy of the OSHA guidelines from the Federal Register Regulations section 1910.1030.
   B. Employee's job description and job duties as they relate to the exposure incident.

   C. Documentation of the route(s) of exposure and circumstances under which exposure occurred.
   D. Results of the source individual's blood testing, if available.
   E. All medical records relevant to the appropriate treatment, including vaccination status which the employer is required to maintain.

APPENDIX E

LANDER UNIVERSITY

Confidential Employee Blood/Body Fluid Exposure Summary
(To Supplement Workers Compensation 12-A Form)

==========

I. HISTORY:

Employee Name:_____ Job Title:_____

District:_____ County Code:_____

Clinic
Name:_____

Telephone:_____Date & Time of Exposure:_____

Has employee had Hepatitis B Vaccine?_____ Dose 1?_____Dose 2?_____
Dose 3?_____Refused?_____

Date series completed:_____

Type of Exposure: (Check One)

a) Needle stick_____ Lancet/autolet?_____ Other sharp?_____
Describe
Was sharp clean/steril?_____ Or contaminated?_____
Was blood visible on sharp?_____
Was blood injected into HCW?_____

b) Mucous membrane splash: eye_____ mouth_____ nose_____

c) Open wound contamination?_____ d) Human bite?_____

e) Other exposure?_____ Describe:_____

Type of blood/body fluid (check one):
Blood_____ Vomitus_____ Urine_____ Vaginal Secretion_____
Wound secretion_____ Sputum_____ Other (specify)_____

Is Source Patient known?_____If no, state source of sharp or fluid:_____

_____

Patient Name:_____Clinic Record No.:_____

D.O.B.:_____Clinical data/risk factors:_____

Does patient have Hepatitis B?_____ Syphilis?_____ HIV/AIDS?_____

Was Personal Protective Equipment (PPE) available?_____

PPE used:

Gloves_____Mask_____Gown_____Goggles_____
Face Shield_____None_____

Comment:_____

HCW wound care? (describe)_____

==========

II. HCW-EMPLOYEE COUNSELING:

_____Understands risk of acquiring HIV from occupational exposure.

_____Report and seek medical evaluation for any acute febrile symptoms occurring within 12 weeks following exposure, i.e.: fever, rash, lymphadenopathy.

_____"Safer sex" for at least 6 months pending results of testing.

_____Availability of HIV testing (baseline, 6 wks.; 3, 6, & 12 mos.)

_____Information and assistance in AZT Prophylaxis Protocol.

_____Discussed any work practices, engineering, or personal protective equipment problems to prevent recurrence.

==========

III. SEROLOGIC TESTING:

Exposed HCW-Employee:

HBsAg Date:_____Result:_____

Anti-HBsAg Date:_____Result:_____

RPR Date:_____Result:_____

HIV (written informed consent):

Baseline Date:_____Result:_____

6 Weeks Date:_____Result:_____

3 Months Date:_____Result:_____

6 Months Date:_____Result:_____

12 Months Date:_____Result:_____

Source Patient:

HBsAg Date:_____Result:_____

Anti-HBsAg Date:_____Result:_____

RPR Date:_____Result:_____

HIV (written informed consent):

Date:_____Result:_____

==========

IV. HCW INJECTIONS ADMINISTERED AFTER EXPOSURE:

	Ml/Route/Site	Date	Signature
Td booster	_____	_____	_____
HBIG or IG	_____	_____	_____

Hepatitis B Vaccine:

Dose One	_____	_____	_____
Dose Two	_____	_____	_____
Dose Three	_____	_____	_____
Booster	_____	_____	_____

==========

V. COMMENTS/CONTINUATION NOTES:

_____

_____

_____

_____

_____

Health Service Nurse/Designee Signature:

Date:_____

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Original retained in: Lander University Office of Human Resources

APPENDIX F

§ 44-29-230. Testing required when health care worker exposed to Human Immunodeficiency Virus.

While working with a patient or a patient's blood or body fluids, if a health care worker is involved in an incident resulting in possible exposure to Human Immunodeficiency Virus (HIV), and a health care professional has probable cause to believe that the incident may have caused infection, the professional may require the patient to be tested. The test results must be given to the professional who shall report the results to the worker and patient.

HISTORY: 1988 Act No. 490, § 2, eff May 2, 1988.

APPENDIX G
LANDER UNIVERSITY

OSHA BLOODBORNE PATHOGENS STANDARD
EXPOSURE CONTROL PLAN

INFORMATION
FOR
HEALTH CARE PROFESSIONAL'S EVALUATION
OF
POST-EXPOSURE EVALUATION AND FOLLOW-UP

Following a report of an exposure incident, the Department shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including the following elements:

I. Documentation of the route(s) of exposure, and the circumstances under which the exposure occurred;

II. Identification and documentation of the source individual, unless the employer can establish that identification infeasible or prohibited by state or local law:

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

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

C. 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.

III. Collection and testing of blood for HBV and HIV serological status:

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

B. 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 at the State Lab 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.

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

V. Counseling.

VI. Evaluation of reported illnesses.

APPENDIX G
LANDER UNIVERSITY

OSHA BLOODBORNE PATHOGENS STANDARD
EXPOSURE CONTROL PLAN

HEALTH CARE PROFESSIONAL'S WRITTEN OPINION
FOR
POST-EXPOSURE EVALUATION AND FOLLOW-UP

Yes_____ No_____ Hepatitis B Vaccination is indicated for this employee.

If yes, indicate if employee has previously received or is currently receiving Vaccination series: Yes_____No_____
Or date employee declined Vaccination
Series:_____

Please enter date done:

_____Employee has been informed of the results of the post-exposure evaluation.

_____Employee has been told about any medical conditions resulting from exposure incident which may require further evaluation or treatment.

Yes_____ No_____ Other relevant medical information is present: See employment health record.

_____
Employee Signature

_____
Employee Name

_____
Date

_____
Signature of Health Service Nurse/Other Health Care Professional

_____
Date

APPENDIX H

LANDER UNIVERSITY TRAINING DOCUMENTATION FORM

29 CFR 1910.1030 - Bloodborne Pathogen Standard

Within 10 working days of my start date with Lander University, I received training on OSHA's Bloodborne Pathogen Standard and was offered the hepatitis B vaccine. I understand that the training and vaccine are offered to me at no cost due to my position and its potential exposure to human blood or OPIM. The training took place during working hours.

This information and training program was conducted in 2 parts. The first portion was conducted by a medical professional who answered all questions during the discussion period. Topics covered included:

- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- Information on the hepatitis vaccine;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- Universal precautions policy and its significance;
- An explanation of the procedures to follow if an exposure incident occurs; and
- Information on the post-exposure evaluation and follow-up after an exposure incident.

The second part of the training session was conducted by my management. Topics covered included:

- Information on the standard, where the Plan is located, how to use it, its accessibility to employees, and an explanation of its contents;
- Universal precautions as they relate to my job;
- The engineering controls, work practice controls, and other methods of minimizing risk currently in place for my position duties;
- Information on the types, proper use, selection, location, removal, handling, decontamination (where appropriate), and disposal of PPE for my job;
- An explanation of who to contact in an emergency involving blood or OPIM;

- Information on my rights under statue in South Carolina regarding testing a source individual following an exposure incident; and,

- An explanation of the required signs and labels required for proper identification and disposal of contaminated items.

I understand that my medical records are kept confidential and that these training records will be made available to OSHA officials upon their request.

I plan to attend annual refresher classes as offered by Lander University.

Employee's Printed Name:_____

Employee's Signature:_____

Date:_____

Instructor #1:_____

Instructor #2:_____

APPENDIX I
EMPLOYEE CATEGORIZATION FORM
(To be completed by Department Head or Supervisor)

Employee Name_____
Job Title_____

Supervisor Name_____
Department_____

Employment Date_____ Date Sent to Safety Director_____

The purpose of this form is to identify each employee who is at risk of exposure to blood and body substances while in the work place and to offer vaccination to each employee who is potentially at risk to exposure to Hepatitis B Virus.

Please check the appropriate Category of Risk for the employee whose name appears above. ALL CATEGORY I AND II EMPLOYEES MUST BE REFERRED TO HEALTH SERVICES FOR VACCINATION. I understand it is my responsibility, as Department Head, to see that Category I or II employees are referred to Health Services. Any Category I or II employee who refuses vaccine must sign a refusal form.

_____ CATEGORY I Tasks that involve exposure to blood, body fluids, or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with blood, body fluids, or tissues, or a potential for spills or splashes of them, are Category I tasks. Use of appropriate measures should be required for every employee engaged in this Category.

_____ CATEGORY II Tasks that involve no exposure to blood, body fluids, or tissues, but employment may require performing unplanned Category I tasks. The normal work routine involves no exposure to blood, body fluids, or tissues, but exposure or potential exposure may be required as a condition of employment. Appropriate protective measures should be readily available to every employee engaged in Category II tasks.

_____ CATEGORY III Tasks that involve no exposure to blood, body fluids, or tissues, and Category I tasks are not a condition of employment. The normal routine involves no exposure to blood, body fluids, or tissues (although situations can be imagined or hypothesized under which anyone, anywhere, might encounter potential exposure to body fluids). Persons who perform these duties are not called upon as part of their employment to perform or assist in emergency medical care or first aid or to be potentially exposed in some other way. Tasks that involve handling of implements or utensils, use of public or shared bathroom facilities or telephones, and personal contacts such as handshaking are Category III tasks. Category III employees do not need vaccination for Hepatitis B.

Employee: I have been informed of my Category of Risk and understand that Hepatitis B vaccine is available to me at no cost on a voluntary basis.

_____ _____

Employee Signature Employee Date

_____ _____

Department Head Signature Department Head Date

Appendix J
Bloodborne Pathogens Standard 1910-1030

Summary

OSHA Standard 1910-1030 directs all employers to devise a plan that will protect their workers from occupational exposure to blood and certain other body fluids. Our exposure control plan is designed to protect our workers by:

1) Assigning exposure determinations
   - Category l – High risk
   - Category ll – Low risk
2) Providing initial and annual training for those at risk.
3) Offering Hepatitis B vaccinations to those at risk
4) Post exposure evaluation, treatment and follow-up as necessary.
5) Establishing approved methods to minimize our worker's risk to include universal or standard precautions, personal protective equipment, engineering and work practices, plus decontamination, clean up and disposal.

Appendix K

Montgomery Center for Family Medicine Post Exposure Protocol

These documents maintained in Human Resources, Health Services, and OSHA Compliance Office.

Appendix L
Sharps Injury Log

OSHA's Bloodborne Pathogen Standard 29 CFR 1910.1030 paragraph (h) (5) requires an employer to establish and maintain a Sharps Injury Log for recording all percutaneous injuries in a facility occurring from contaminated sharps. This log must be kept in addition to the injury and illness log required by 29 CFR 1904. The Sharps Injury Log should include all sharps injuries occurring in a calendar year. The log must be retained for five years following the end of the year to which it relates. The log must be kept in a manner that preserves the confidentiality of the affected employee. The Sharps Injury Log will be maintained by the Director of Safety and Compliance along with the OSHA 300 log.