KANSAS STATE UNIVERSITY

WORK PLACE PRECAUTIONS FOR BLOODBORNE PATHOGENS
III. METHODS OF COMPLIANCE

A. Employees shall take universal precautions to prevent contact with human blood. The concept of universal precautions means that all human blood and certain human body fluids are treated as if known to be infectious with HIV, HBV, and other bloodborne pathogens.

B. Engineering and administrative controls should be used to minimize employee exposure.

1. Department heads and directors should:
   a. provide handwashing facilities which are readily accessible to employees; and
   b. ensure handwashing facilities are used by employees.

2. The department should also provide another means of sanitizing the hands such as antiseptic hand cleanser or towelettes. Employees should then wash hands with soap and running water as soon as possible after using antiseptics alone.

3. Employees should not shear-off, break, bend, recap, or remove, if possible, contaminated needles and other sharps for disposal. Sharps are defined as any sharp object that can puncture or lacerate the skin. This includes hypodermic needles, razor blades, scalpel blades, and pasteur pipettes.
   a. These materials must be placed in a container provided by the Department of Public Safety.
   b. The container for storage, transport, or shipping must be labeled with the universal biohazard symbol (see Appendix B) as a minimum. The words "INFECTIONOUS WASTE," or "BIOHAZARD WASTE," may also be applied to the container.
   c. Costs for containers and disposal may be charged to the utilizing department.
   d. Sharps contaminated with human blood shall be sterilized by autoclaving prior to pick up.

4. Eating, drinking, smoking, applying cosmetics, and handling contact lenses are prohibited in work areas where there is reasonable likelihood of occupational exposure.

5. Food and drink must not be kept in refrigerators, freezers, shelves, cabinets, or on countertops where human blood is present.

6. All procedures involving human blood must be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets.

7. Mouth pipetting or mouth suctioning of human blood is prohibited.

8. Human blood specimens must be stored, transported, or shipped in a solid
laboratory procedures with human blood.
   a. Disposable gloves must be replaced as soon as possible if torn or punctured.
   b. Disposable gloves must be disposed of after use; not washed or decontaminated.
   c. Reusable gloves must be decontaminated between uses and discarded if they are damaged in any way.

7. Masks, eye protection, and face shields shall be worn whenever splashes, spray, spatter, or droplets of human blood may be generated and eye, nose, or mouth contamination is anticipated.

8. Gowns, aprons, lab coats or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend on the task and degree of exposure anticipated.

9. Surgical caps or hoods and/or shoe covers or boots shall be worn when gross contamination can reasonably be anticipated.

D. Housekeeping. The department will ensure that the worksite is maintained in a clean and sanitary condition.

1. The department will determine and implement a written schedule for cleaning and method of decontamination.

2. All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with human blood.

   a. All contaminated work surfaces shall be decontaminated with a virucidal disinfectant, such as a 10% solution of household bleach, after completion of procedures, as soon as possible after any spill of human blood, and at the end of the work shift, if the surface may have become contaminated.

   b. Plastic wrap, aluminum foil, or other protective coverings used to cover equipment and other surfaces, should be removed and replaced as soon as possible after contaminated or at the end of the workshift, if they have been contaminated.

   c. All bins, pails, cans, and similar receptacles intended for reuse which may be contaminated, should be inspected and decontaminated on a regular cleaning schedule and when visibly contaminated.

   d. Broken glassware which may be contaminated shall not be picked up directly with the hands, but shall be picked up using mechanical means such as brush and dust pan, tongs, or forceps.

3. Reusable sharps that are contaminated with human blood shall not be stored or processed in a manner that requires employees to reach by hand into containers where these sharps have been placed.
5. Medical services wastes, not including sharps, should be collected at least daily from the point of origin for transport to a storage or disposal area within the department. Employees should take precautions to prevent accidental contact with the waste during transfer.

6. Medical services wastes may not be stored within the originating department longer than two weeks without sterilization. The originating department or central facility in the College of Veterinary Medicine, or Lafene Health Center, should contact the Department of Public Safety for pick up.

7. The Department of Public Safety will pick up and transport the materials in a manner that will prevent disease or injury. Materials will be transported in "International Orange" (red) containers to the Hazardous Waste Storage Facility to await disposal.

8. The Department of Public Safety will negotiate a contract with a permitted medical waste disposal facility for pick up and disposal by incineration of the medical services wastes.

9. Disposal of medical services wastes must be accomplished in a manner that minimizes the risk to health, safety, or the environment. The following disposal methods are considered acceptable:
   a. Discharge of liquids to a sanitary sewer which is connected to a secondary sewage treatment plant;
   b. Incineration of combustible solids, followed by disposal of the ash in a sanitary landfill, as permitted by law;
   c. Disposal in a hazardous waste disposal facility that has a permit issued under K.A.R. 28-31-9; or
   d. Any other method approved by KDHE and accepted by the university's Environmental Health and Safety Committee.

IV. HIV and HBV research laboratories and production facilities. Research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV must follow the strict requirements outlined in 29 CFR 1910.1030(e).

V. Hepatitis B vaccination, post-exposure evaluation, and follow-up.
   A. Each department must make available to all employees who have occupational exposure, the hepatitis B vaccine and vaccination series. This includes post-exposure evaluation and follow-up at no cost to the employee.
   B. The hepatitis B vaccination, as recommended by the U.S. Public Health Service, shall be made available after the employee has received training and within 10 working days of initial assignment.
      1. Exceptions to this are when the employee has previously received the complete hepatitis B vaccination series, the antibody testing has revealed that the employee
1. Be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination;
2. State that the employee has been informed of the results of the evaluation;
3. State that the employee has been told about any medical conditions resulting from exposure to human blood, which require further evaluation or treatment;
F. All other findings or diagnoses must remain confidential and are not to be included in the written report.
G. Medical records must be kept confidential in accordance with 29 CFR 1910.20 and maintained for at least the duration of employment plus 30 years.

VI. Hazard communication.
A. Warning labels, as in Appendix B, must be affixed to containers of medical services waste, refrigerators and freezers containing human blood, and other containers used to store, transport, or ship human blood.
B. Labels must be fluorescent orange, international orange, or orange-red with lettering or symbols in contrasting color.
C. Red bags or red containers may be substituted for labels.
D. The department must post signs at the entrance to work areas in HIV and HBV Research Laboratory or Production Facilities as per 29 CFR 1910.1030(g)(1)(ii).
E. Training and information. Departments must ensure that all employees with occupational exposure participate in a training program provided at no cost to the employee during working hours.

1. Training should be provided within 90 days of publishing the KSU WORK PLACE PRECAUTIONS FOR BLOODBORNE PATHOGENS or at the time of initial assignment to tasks where occupational exposure may take place, and at least annually thereafter.
2. Additional training should be provided when changes in procedures or tasks occur.
3. Training should include discussion of:
   a. AIDS, HIV, HBV, and other specific pathogenic diseases at task;
   b. 29 CFR 1910.1030;
   c. the guideline, WORK PLACE PRECAUTIONS FOR BLOODBORNE PATHOGENS; and
   d. the written exposure control plan.
4. There must be opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter.

VII. Recordkeeping.
Appendix A: Exposure Control Plan

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

KANSAS STATE UNIVERSITY

Kansas State University voluntarily complies with the OSHA Bloodborne Pathogen Standard, 29 CFR 1910.1030. In accordance with this standard, the following exposure control plan for

[DEPARTMENT] ____________________________

[DATE] ____________________________

has been developed. All provisions of this standard will be implemented by:

[DATE] ____________________________

All employees who may be exposed to human blood or other potentially infectious materials must read the Kansas State University Guidelines on Workplace Precautions for Bloodborne Pathogens and this Bloodborne Pathogens Exposure Control Plan.

EXPOSURE DETERMINATION. The following job classifications may be expected to incur occupational exposure to bloodborne pathogens, regardless of frequency: [list all job classifications at risk]

Some employees may be exposed to bloodborne pathogens only when certain tasks or procedures are performed. The following job classifications and associated tasks or procedures that put those employees at risk are: [list job classifications and tasks]

IMPLEMENTATION SCHEDULE AND METHODOLOGY. Engineering and administrative controls to be used by this department are: [list controls, i.e., sharps containers]

The schedule for examining and reviewing the effectiveness of the controls is: [list schedule, i.e., daily or monthly, as well as list who has the responsibility for review]

Handwashing facilities are located: [list the location, tasks, and individual responsible to ensure maintenance and accessibility of alternatives]
Specimens. The following procedures will be used for any specimens of human blood: [list procedures to be used, which specimens could puncture a primary container, which puncture resistant containers can be used as secondary containers, and where they are located]

Contaminated Equipment. The following equipment must be decontaminated prior to servicing or shipping: [list equipment]

Personal Protective Equipment. The following personnel are responsible for distributing personal protective equipment: [list individuals]

The following tasks require specific personal protective equipment: [list all personal protective equipment, i.e., lab coat, glasses, shoe covers, disposable gloves, etc. and the tasks that require them]

The following standard operating procedures should be followed when leaving the work area: [list how to keep risk to a minimum, how to remove personal protective equipment safely, where to place personal protective equipment, etc.]

**Disposable personal protective equipment will not be washed or decontaminated after use, and will be disposed of as medical services waste after removal.**

Work areas will be cleaned and decontaminated according to the following schedule: [list schedule]

Decontamination will be accomplished using the following chemicals: [list chemicals, i.e., 10% solution of household bleach]
f. The appropriate counseling to the employee.

Current U.S. Public Health Service recommendations for post-exposure HBV prophylaxis are:

<table>
<thead>
<tr>
<th>Source, HBsAg-positive</th>
<th>Exposed Person Unvaccinated</th>
<th>Exposed Person Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HBIG x 1 immediately*.</td>
<td>1. Test exposed person for anti-HBs.</td>
<td></td>
</tr>
<tr>
<td>2. Initiate HB vaccineb.</td>
<td>2. If inadequate antibodyc, HBIG x 1 immediately plus HB vaccine booster dose.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Known Source, High Risk, HBsAg-positive</th>
<th>Exposed Person Unvaccinated</th>
<th>Exposed Person Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initiate HB vaccine series.</td>
<td>Test source for HBsAg only if exposed is vaccine nonresponder; if source is HBsAg-positive, give HBIG x 1 immediately plus HB vaccine booster dose.</td>
<td></td>
</tr>
<tr>
<td>2. Test source for HBsAg; if positive, HBIG x 1.</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Known Source, Low Risk, HBsAg-positive</th>
<th>Exposed Person Unvaccinated</th>
<th>Exposed Person Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate HB vaccine series.</td>
<td>Nothing required.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Unknown Source</th>
<th>Exposed Person Unvaccinated</th>
<th>Exposed Person Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate HB vaccine series.</td>
<td>Nothing required.</td>
<td></td>
</tr>
</tbody>
</table>

*aHBIG dose 0.06 ml/kg IM.
*bHB vaccine dose 20 μg IM for adults; 10 μg IM for infants or children under 10 years of age. First dose within 1 week; second and third dose 1 and 6 months later.
*cLess than 10 SRU by RIA, negative by EIA.

The following person(s) has been designated to assure this policy is effectively carried out and the proper records are maintained: [list individuals]

TRAINING. The following individual is responsible for conducting Bloodborne Pathogen training: [list individual]

The following materials will be used for training: [list syllabus and materials, i.e., videotape, slides, workbooks, etc.]
Appendix B: Biohazard Symbol