



Environmental Health & Safety

Bloodborne Pathogens Exposure Control Plan

EOSMS 215

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SCOPE AND APPLICATION

1) Purpose

The purpose of the Exposure Control Program (ECP) is to outline the regulatory requirements and effective control measures to minimize potential for exposure to BBPs, including but not limited to Hepatitis B (HBV), Hepatitis C (HCV), and Human Immunodeficiency Virus (HIV). The information provided is based on the Occupational Health and Safety Administration (OSHA) Bloodborne Pathogen (BBP) Standard (29 CFR 1910.1030), and the best practices outlined by the Center for Disease Control's (CDC)- Biosafety in Medical and Biomedical Laboratories, 5th Edition (BMBL).

2) Scope

The ECP applies to activities in all facilities owned, leased or operated by KSU, where KSU employees and students have the potential to be exposed to BBPs while performing their work duties in their learning environment. The exposure determination in Section 3 highlights the various job classifications that are covered under this ECP based on their potential for exposure to human blood, human blood components, BBPs, or other potentially infectious materials (OPIM).

ROLES AND RESPONSIBILITIES

1) The University

KSU has an obligation to provide a workplace for its employees that is reasonably safe from all recognized hazards associated with their job duties, including biological hazards that could cause illness in exposed individuals. Therefore, KSU has instituted the ECP for all personnel who may be exposed to BBPs during the performance of their duties. Under the ECP, the University has the following responsibilities:

- Ensuring appropriate training is provided to personnel who have the potential to be exposed to BBPs while performing their job duties.

- Providing appropriate personal protective equipment (PPE) for employees

- Making available to all affected employees the necessary vaccinations (specifically, the Hepatitis B vaccine) at no cost, and to obtain a declination form from all individuals who decline to receive the vaccine

- Establishing and implementing policies for safe conduct during research activities involving work with materials of human origin and BBPs.

- Providing adequately designed facilities and containment devices for work with biological agents

- Establishing and maintaining a health surveillance program for personnel

- Reporting any significant problems, violations, or significant research-related accidents or illnesses to the NIH Office of Biotechnology Activities (OBA) within 30 days.

2) Deans

Creating vision, enforce policy, set performance expectations, and ensure timely availability of resources that support the ECP.

Providing leadership to ensure effective implementation of the ECP and ensure the College's compliance with governing laws, regulations, and policies. To this end, Deans may designate a safety officer(s) within the College/School.

Reviewing laboratory and safety-related assessment reports as a means to assess and direct actions necessary to continually improve safety at the College/School.

3) Department/School Chairpersons

Setting performance expectations, managing biosafety risks, and ensuring the Department's compliance with this program and other Environmental and Occupational Safety (EOS) governing laws, regulation and policies.

Effectively implementing

Providing technical advice to PIs, supervisors, the Institutional Animal Care and Use Committee (IACUC), and Institutional Biosafety Committee (IBC) on research safety procedures.

Consulting with researchers on issues of animal care, biosafety, and the safe use of biological materials in the laboratory.

Performing periodic inspections to ensure that standard operating procedures are being followed and regulatory requirements are being met

Providing guidance to researchers on laboratory security

Providing guidance to researchers on proper waste disposal methods in accordance with federal and state regulations

Assisting in the development of emergency plans for handling accidental spills and personnel contamination.

Investigating accidents involving BBPs, materials of human origin, and OPIM

5) Institutional Biosafety Committee (IBC)

Under the KSU ECP, the responsibilities of the IBC are as follows:

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The following is a list of all job classifications in which some

Laboratory Personnel
(managers, technicians, grad
students, TAs, etc.)

At minimum, safety glasses with side shields shall be worn when working with infectious materials.

Splash proof goggles shall be worn when there is potential for exposure to the eyes through generation of splashes and/or aerosols.

Surgical masks and/or face shields shall be worn in addition to eye protection when it is reasonably anticipated that an exposure could occur through splashes, sprays, aerosols, droplets, or splattering of human blood or OPIM.

4) Housekeeping

All employees who have the potential to be exposed to BBPs, OPIM, or any other infectious agents while

hallways often coupled with emergency showers. Emergency eyewash stations must meet the following criteria:

Double ocular so that both eyes can be rinsed simultaneously

Hands-free operation

Dust caps must be kept in place when not in use to prevent the settling of dust on the eye pieces (replacement caps can be ordered if not available)

Eyewash stations must be free of obstructions

Eyewash stations at the sinks must be tested weekly; those coupled with emergency showers must be tested monthly. Each test must be documented (signature of tester and the date of the test).

Laboratory work that could result in the creating of aerosols, droplets, splashes, and/or spills of

contaminants must meet the following criteria:

Classified or classified (hazardous) materials must be stored in approved containers

2) Laboratory Work Practice Controls

Mouth pipetting is prohibited.

Eating, drinking, smoking, and the application of cosmetics is proh

As prescribed by the CDC and NIH in the [GBL](#), all processing or analyses of human blood, OPIM, or other infectious agents should be conducted under BSL containment.

Any procedure involving the use of human blood, OPIM, or other infectious agents should be performed in a manner that minimizes splashing, aerosolization, and/or spraying of these materials.

Human materials such as cell lines and DNA must be treated as OPIM, unless appropriate screening has been conducted and the materials have been certified as free of BBPs.

Decontaminate all spills immediately using an appropriate disinfectant.

Autoclaves and sterilizers use steam, extreme heat (sometimes in excess of 250 degrees Fahrenheit), and pressure as a means of decontaminating and/or sterilizing materials, including but not limited to metal instruments, liquids, and infectious waste materials. Consider the following when operating autoclaves/sterilizers:

Anyone who will be authorized to use an autoclave must first be trained on its operation.

Prior to using an autoclave, any remaining items should be removed.

When using the autoclave to deactivate infectious waste, ensure that the unit is validated using the spore test method. This ensures that the unit reaches the necessary temperature to deactivate pathogens.

Autoclaves should never be overloaded.

Follow the appropriate SOP for operating the autoclave.

Wear appropriate PPE when removing materials from the autoclave (e.g. long thermal gloves, lab coat, eye protection, closed toe shoes), as not doing so will result in severe burns.

If handling sharp instruments that have been autoclaved, use cut-resistant gloves to prevent inadvertent incisions or lacerations.

Never attempt to open an autoclave while it is in operation. Autoclaves are pressurized vessels, and doing so could result in the release of steam, the ejection of the components or contents of the autoclave, and the sudden release of the autoclave door, all which could result in the severe injury or death of an individual.

Preventative maintenance must be performed on autoclave units periodically to prevent mechanical failure.

Maintenance must be conducted according to the manufacturer's specifications, and by an individual trained in recognizing critical defects that could result in a mechanical failure.

A maintenance history should be kept to indicate all inspections, failures, and repairs

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legally required consent cannot be obtained. When the source individual's consent is not required by law, his/her blood, if available, shall be tested and the results shall be documented

If the source individual is already known to be infected with HBV or HIV, then testing of his/her blood will not be required.

The results of the source individual's tests shall be made available to the exposed individual, and he/she shall be informed of the applicable laws and regulations concerning disclosure of the identity and infectious state of the source individual.

A sample of blood from the exposed individual will be collected as soon as possible after obtaining consent.

Post-exposure prophylaxis, when medically indicated, will be provided as recommended by the United States Public Health Service (USPHS).

Counseling shall be made available regarding reduction of risk and the risks and benefits of HIV testing in accordance with state law.

KSU will provide a copy of this ECP to the health care professional responsible for the Hepatitis B vaccination.

The health care professional who evaluates personnel after an exposure will be provided with the following:

- A description of the exposed employee's job responsibilities as they relate to the exposure event

- Documentation of the routes of exposure and the circumstances under which the event occurred

- The results of the source individuals blood tests (if available) and

2) Additional Training Requirements

RECORD KEEPING

1) Sharps Injury Log

KSU shall maintain a sharps injury log of all percutaneous injuries associated with contaminated e

3) Training Records

EHS will maintain records of BBP

Revision History

