

# **BLOODBORNE PATHOGENS STANDARDS AND POLICY MODEL**

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## **FACTS**

### OSHA Bloodborne Pathogens Final Standard

#### Summary of Key Provisions

**PURPOSE:** Limits occupational exposure to blood and other potentially infectious materials since any exposure could result in transmission of bloodborne pathogens which could lead to disease or death.

**SCOPE:** Covers all employees who could be "reasonably anticipated" as the result of performing their job duties to face contact with blood and other potentially infectious materials. OSHA has not attempted to list all occupations where exposures could occur. "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any unfixed tissue or organ other than intact skins from a human (living or dead) and human immunodeficiency virus (HIV)-containing cell or tissue cultures, organ cultures and HIV or hepatitis B (HBV)-containing culture medium or other solutions as well as blood, organs or other tissues from experimental animals infected with HIV or HBV.

**EXPOSURE CONTROL PLAN:** Requires employers to identify, in writing, tasks and procedures as well as job classifications where occupational exposure to blood occurs--without regard to personal protective clothing and equipment. It must also set forth the schedule for implementing other provisions of the standard and specify the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update it at least annually--more often if necessary to accommodate workplace changes.

**METHODS OF COMPLIANCE:** Mandates universal precautions, (treating body/fluids/materials as if infectious) emphasizing engineering and work practice controls. The standard stresses handwashing and requires employers to provide facilities and ensure that employees use them following exposure to blood. It sets forth procedures to minimize needlesticks, minimize splashing and spraying of blood, ensure appropriate packaging of specimens and regulated wastes and decontaminate equipment or label it as contaminated before shipping to servicing facilities. Employers must provide,

at no cost, and require employees to use appropriate personal protective equipment such as gloves, gowns, masks, mouthpieces and resuscitation bags and must clean, repair, and replace these when necessary. Gloves are not necessarily required for routine phlebotomies in volunteer blood donation centers but must be made available to employees who want them.

The standard requires a written schedule for cleaning, identifying and method of decontamination to be used, in addition to cleaning following contact with blood or other potentially infectious materials. It specifies methods for disposing of contaminated sharps and sets forth standards for containers for these items and other regulated waste. Further, the standard includes provisions for handling contaminated laundry to minimize exposures.

**HIV AND EBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES:** Calls for these facilities to follow standard microbiological practices and specifies additional practices intended to minimize exposures of employees working with concentrated viruses and reduce the risk of accidental exposure for other employees at the facility. These facilities must include required containment equipment and an autoclave for decontamination of regulated waste and must be constructed to limit risks and enable easy clean up. Additional training and experience requirements apply to workers in these facilities.

**HEPATITIS B VACCINATION:** Requires vaccinations to be made available to all employees who have occupational exposure to blood within 10 working days of assignment, at no cost, at a reasonable time and place, under the supervision of licensed physician/licensed healthcare professional and according to the latest recommendations of the U.S. Public Health Service (USPHS). Prescreening may not be required as a condition of receiving the vaccine. Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. Should booster doses later be recommended by the USPHS, employees must be offered them.

**POST-EXPOSURE EVALUATION AND FOLLOW UP:** Specifies procedures to be made available to all employees who have had an exposure incident plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow-up must include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee's blood if he/she consents, post-exposure prophylaxis counseling and evaluation of reported illnesses. Healthcare professionals must be provided information to facilitate the evaluation and their written opinion on the need for hep. B vaccination following the exposure. Information such as the employee's ability to receive the vaccine must be supplied to the employer. All diagnosis must be confidential.

**HAZARD COMMUNICATION:** Requires warning labels including the orange or orange-red biohazard symbol affixed to containers of regulated waste, refrigerators and freezers and other containers which are used to store or transport blood or other potentially infectious materials. Red bags or containers may be used instead of labeling. When a facility uses universal precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal precautions, the laundry need not be labelled. Blood which has been tested and found free of HIV or HBV and released for clinical use, and regulated waste which has been decontaminated, need not be labeled. Signs must be used to identify restricted areas in HIV and HBV research laboratories and production facilities.

**INFORMATION AND TRAINING:** Mandates training within 90 days of effective date, initially upon assignment and annually--employees who have received appropriate training within the past year need only receive additional training in items not previously covered. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipment, hepatitis B vaccine, response to emergencies involving blood, how to handle exposure incidents, the post-exposure evaluation and follow-up program, signs/labels/color-coding. There must be opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter. Laboratory and production facility workers must receive additional specialized initial training.

**RECORD KEEPING:** Calls for medical records to be kept for each employee with occupational exposure for the duration of employment plus 30 years, must be confidential and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy or the healthcare professional's written opinion; and a copy of information provided to the healthcare professional. Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, names and job titles of all persons attending the sessions. Medical records must be made available to the subject employee, anyone with written consent of the employee, OSHA and NIOSH---they are not available to the employer. Disposal of records must be in accord with OSHA's standard covering access to records.

**DATES:** Sets effective date 90 days after publication in the Federal Register. Exposure control plan must be completed within 60 days of the effective date. Information and Training requirements take effect 90 days following the effective date. And the following other provisions take effect 120 days after the effective date: engineering, housekeeping, special provisions covering HIV and HBV research laboratories and production facilities, hepatitis B vaccination, post-exposure evaluation, follow-up and labels and signs.

## **BLOODBORNE FACTS**

### **HEPATITIS B VACCINATION.....PROTECTION FOR YOU**

#### **WHAT IS HBV?**

Hepatitis B virus (HBV) is a potentially life-threatening bloodborne pathogen. Centers for Disease Control estimates there are approximately 280,000 HBV infections each year in the U.S.

Approximately 8,700 health care workers each year contract hepatitis B, and about 200 will die as a result. In addition, some who contract HBV will become carriers, passing the disease on to others. Carriers also face a significantly higher risk for other liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer.

HBV infection is transmitted through exposure to blood and other infectious body fluids and tissues. Anyone with occupational exposure to blood is at risk of contracting the infection.

Employers must provide engineering controls; workers must use work practices and protective clothing and equipment to prevent exposure to potentially infectious materials. However, the best defense against hepatitis B is vaccination.

#### **WHO NEEDS VACCINATION?**

The new OSHA standard covering bloodborne pathogens requires employers to offer the three-injection vaccination series free to all employees who are exposed to blood or other potentially infectious materials as part of their job duties. This includes health care workers, emergency responders, morticians, first aid personnel, law enforcement officers, correctional facilities staff, launderers, as well as others.

The vaccination must be offered within 10 days of initial assignment to a job in which exposure to blood or other potentially infectious materials can be "reasonably anticipated." The requirements for vaccinations of those already on the job take effect July 6, 1992.

#### **WHAT DOES VACCINATION INVOLVE?**

The hepatitis B vaccination is a noninfectious, yeast-based vaccine given in three injections in the arm. It is prepared from recombinant yeast cultures, rather than human blood or plasma. Thus, there is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine.

The second injection should be given one month after the first, and the third injection six months after the initial dose.

More than 90 percent of those vaccinated will develop immunity to the hepatitis B virus. To ensure immunity, it is important for individuals to receive all three injections. At this point it is unclear how long the immunity lasts, so booster shots may be required at some point in the future.

The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although employees may opt to have their blood tested for antibodies to determine need for the vaccine, employers may not make such screening a condition of receiving vaccination nor are employers required to provide prescreening.

Each employee should receive counseling from a health care professional when vaccination is offered. This discussion will help an employee determine whether inoculation is necessary.

### **WHAT IF I DECLINE VACCINATION?**

Workers who decide to decline vaccination must complete a declination form. Employers must keep these forms on file so that they know the vaccination status of everyone who is exposed to blood. At any time after a worker initially declines to receive the vaccine, he or she may opt to take it.

### **WHAT IF I AM EXPOSED BUT HAVE NOT YET BEEN VACCINATED?**

If a employee experiences an exposure incident, such as a needlestick or a blood splash in the eye, he or she must receive confidential medical evaluation from a licensed health care professional with appropriate follow-up. The worker's blood will also be screened if he/she agrees.

The healthcare professional is to follow the guidelines of the U.S. Public Health Service in providing treatment. This would include hepatitis B vaccination. The healthcare professional must give a written opinion on whether or not vaccination is recommended and whether the employee receives it. Only this information is reported to the employer. Employee medical records must remain confidential. HIV or HBV status must NOT be reported to the employer.

## **METHODS OF PROTECTION**

### **WHAT SHOULD BE DONE TO AVOID CONTACT WITH BODY FLUIDS?**

When possible, direct skin contact with body fluids should be avoided. Disposable gloves will be available. Gloves are recommended when direct contact with body fluids is anticipated (e.g. treating bloody noses, handling clothes soiled by incontinence, cleaning small spills by hand, etc.). If extensive contact is made with body fluids, hands should be washed afterwards. Gloves used for this purpose should be put in a plastic bag or lined trash can and secured for disposal.

### **WHAT SHOULD BE DONE IF DIRECT SKIN CONTACT OCCURS?**

In many instances, unanticipated skin contact with body fluid may occur in situations in which gloves may be immediately unavailable. In these instances, hands and other affected skins areas of all exposed persons should be routinely washed with soap and water after direct contact has ceased. Clothing and other non-disposable items that are soaked through with body fluids should be rinsed and placed in plastic bags. If presoaking is required to remove stains such as blood or feces, use gloves to rinse or soak the item in cold water prior to bagging. Clothing should be washed appropriately - see laundry instructions for clothing soiled with body fluids. Contaminated disposable items such as tissues, paper towels, diapers, should be handled in the same manner as disposable gloves.

### **HOW SHOULD SPILLED BODY FLUIDS BE REMOVED FROM ENVIRONMENT?**

The standard procedure of applying sanitary absorbent agents specifically intended for cleaning body fluid spills should be followed. Disposable gloves should be worn when using these agents. The dry material is applied to the area, left for a few minutes to absorb the fluid, and then vacuumed or swept up. The vacuum bag or sweepings should be disposed of in a plastic bag. Broom and dustpan should be rinsed in a disinfectant. No special handling is required for vacuuming equipment.

### **HANDWASHING PROCEDURES**

Proper handwashing requires the use of soap and water and vigorous washing under a stream of running water for approximately 10 seconds.

Soap suspends easily removable soil and microorganisms, allowing them to be washed off. Running water is necessary to carry away dirt and debris. Rinse under running water. Use paper towels to thoroughly dry hands (see hand washing technique in OSHA training manual).



## **DISINFECTANTS**

An intermediate level disinfectant should be used to clean surfaces contaminated with body fluids. Such disinfectants will kill vegetative bacteria, fungi, tubercle bacillus and viruses. The disinfectant should be registered by the U.S. Environmental Protection Agency (EPA) for use as a disinfectant in medical facilities and hospitals.

Various classes of disinfectants are listed below. Hypochlorite bleach is recommended for anything that will be put in the mouth.

1. Ethyl or isopropyl alcohol (70%)
2. Phenolic germicidal detergent in a 1% aqueous solution (Lysol)
3. Sodium hypochlorite with at least 100 ppm available chlorine (1/2 cut household bleach in 1 gallon water, needs to be freshly prepared each time it is used.
4. Appropriate commercially produced cleaners
5. Disinfectant soap

## **DISINFECTION OF HARD SURFACES AND CARE OF EQUIPMENT**

After removing the soil, a disinfectant is applied. Mops should be soaked in the disinfectant after use and washed thoroughly or washed in a hot water cycle before rinse. Disposable cleaning equipment and water should be placed in a toilet or plastic bag as appropriate. Non-disposable cleaning equipment (dust pans, buckets) should be thoroughly rinsed in the disinfectant. The disinfectant solution should be promptly disposed down a drain pipe. Remove gloves and discard in an appropriate receptacle.

## **DISINFECTION OF RUGS**

Apply sanitary absorbent agent, let dry and vacuum. If necessary, mechanically remove with dust pan and broom, then apply rug shampoo (a germicidal detergent) with a brush and revacuum. Rinse dust pan and broom in disinfectant. If necessary, wash brush with soap and water. Dispose of non-reusable cleaning equipment as noted above.

## **LAUNDRY INSTRUCTIONS FOR CLOTHING SOILED WITH BODY FLUIDS**

The most important factor in laundering clothing contaminated in the school setting is elimination of potentially infectious agents by soap and water. Addition of bleach will further reduce the number of potentially infectious agents. Clothing soaked with body fluids should be washed separately from other items. Presoaking may be required for heavily soiled clothing. Otherwise, wash and dry as usual. If the material is bleachable add 1/2 cup household bleach to the wash cycle. If the material is not colorfast, add 1/2 cup non-clorox bleach to the wash cycle.

## INFORMATION AND TRAINING

1. Training sessions will be mandated for all new employees.
2. Annual review training sessions will be held either at a staff, regional meeting or as part of the In-Service Training for the \_\_\_\_\_ County Nursing Service. Annual reviews will be part of In-Service Training.
3. According to OSHA, notices will be posted, attendance taken, indicating who is present and who is offering the training session, and minutes or some other record of what is discussed will be kept.
4. Training elements will include:
  - a. An explanation of the contents of the regulatory standard.
  - b. A general explanation of the epidemiology and symptoms of bloodborne diseases.
  - c. An explanation of the modes of transmission of bloodborne pathogens.
  - d. An explanation of the employer's exposure control plan.
  - e. An explanation of appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
  - f. An explanation of the use and limitations of methods that will prevent or reduce exposure (handwashing, gloving, universal precautions).
  - g. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
  - h. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
  - i. An explanation of the procedure to follow if an exposure incident occurs including the method of reporting the incident and the follow-up that will be made available.
  - j. Information on the post exposure evaluation and follow up that the employer is required to provide for the employee following an exposure incident.
  - k. An opportunity for interactive questions and answers with the person conducting the training session.
  - l. Copies of the regulation will be available upon request.
5. Information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated and that the vaccine and vaccination will be offered free of charge, will be given to all new Category I employees at the time of employment.

## **EXPOSURE DETERMINATION**

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear personal protective equipment.) This exposure determination is required to list all job classifications in which all employees may be expected to incur such occupational exposure, regardless of frequency. In the \_\_\_\_\_ County Nursing Service, the following job classifications are in this category:

- A. Category 1: Nurses, Screeners, WIC Staff, Custodians,
- B. Category 2: Administrators, Secretaries.

In addition, OSHA requires a listing of job classifications in which some employees may have occupational exposure. Since not all the employees in these categories would be expected to incur exposure to blood or other potentially infectious materials, tasks or procedures that would cause these employees to have occupational exposure are also required to be listed in order to clearly understand which employees in these categories are considered to have occupational exposure. The job classifications and associated tasks for these categories are as follows:

### **Category 1** Nurses, Screeners, WIC Staff, Custodians

#### **Custodians**

- o clean potential hazardous bodily fluids
- o clean potential hazardous areas/ eg lavatories, nurses stations
- o dispose of potential hazardous waste material
- o may be unofficial first responders to accidents involving potential hazardous body fluids

#### **Screeners**

- o may come into contact with mucous, saliva in process of screening child
- o performs hematocrits and urine dip sticks
- o may provide bathroom assistance
- o may change diapers
- o may be exposed to skin puncture due to human bite

### **Category 2** Administrators, Secretaries

Under normal circumstance, no potential for exposure to blood and body fluids is anticipated.

## **IMPLEMENTATION SCHEDULE AND METHODOLOGY**

OSHA requires that this plan also include a schedule and methods of implementation for the various requirements of the standard. The following complies with this requirement.

### **Compliance Methods**

Universal precautions will be observed by this district in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual. (See Universal Precautions in OSHA Training Manual)

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees of this agency. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be utilized. This district will utilize the following engineering controls:

- o Sharps containers in the \_\_\_\_\_ County Service building and portables carried by nurses will be disposed of at the Nursing Service in a locked sharps container bin.
- o Leakproof bags with biohazard signs for transport and disposed of at the Nursing Service in a locked bio-medical waste bin.
- o Removal and disposition of biohazard waste as per Universal Precautions Policy.
- o Packets for all employees containing gloves, disinfectant towelette, and gauze pads will be made available. Packets containing gloves, mask, goggles, gown, and CPR mouth shield with instruction will be available throughout the building.

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows: Disposable or one time use controls such as sharps containers and plastic bags do not require periodic review by their nature. Locked boxes and transport bags will be examined on an on-going basis and at least quarterly by \_\_\_\_\_, ie., the County Health Officer or Public Health Nurse.

Handwashing facilities are also available to the employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after incurring exposure. In this Agency handwashing facilities are located in restrooms throughout the building. Antiseptic wipes will be given to each staff member to be used until he/she reaches a handwashing site.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

If employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

### **Needles**

Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared, or purposely broken. OSHA allows an exception to this if the procedure would require that the contaminated needle be recapped or removed and no alternative is feasible and the action is required by the medical procedure. If such action is required then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique. In this Nursing Service recapping or removal is only permitted for the following procedures: None.

### **Containers for Reusable and Disposable Sharps**

This district does not use reusable sharps. All contaminated sharps will be placed immediately, or as soon as possible, after use into appropriate sharps containers. In this Agency the sharps containers are closeable, puncture resistant, labeled with a biohazard label, and are leak proof on sides and bottom. A red leak/puncture resistant sharps container is available in each off-site office or a portable container will be made available for off-site clinics. When the sharps containers are full, they will be transported to the Agency and placed in a red lined wooden box provided by a hazardous waste disposal company. Hazardous waste disposal company is contacted whenever this holding box is full and a pick-up of used sharps containers is needed. The holding box for used sharps containers is emptied one time per month or as needed.

### **Work Area Restrictions**

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, 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 other potentially infectious materials are present.

### **Contaminated Equipment**

Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

## **Personal Protective Equipment**

All personal protective equipment used by this Agency will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

### **Protective clothing will be provided to employees in the following manner:**

Protective Equipment will be distributed by the Supervisor/Designee.

Personal Protective Equipment for all employees includes:

- Gloves
- Face Shield
- Protective eyewear (with solid side shield)
- Utility Gloves
- Mouth Shields for CPR
- Gauze pads
- Antiseptic towelettes

**OSHA BLOODBORNE PATHOGEN**  
**EMPLOYEE IN-SERVICE PRESENTATION**

1. **The OSHA standard for Bloodborne Pathogens**
2. **Epidemiology and symptomatology of bloodborne diseases**
3. **Modes of transmission of bloodborne pathogens.**
4. **This Exposure Control Plan (i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.)**
5. **Procedures which might cause exposure to blood or other potentially infectious materials at this facility.**
6. **Control methods which will be used by this agency to control exposure to blood or other potentially infectious materials.**
7. **Personal protective equipment available at this facility and who should be contacted.**
8. **Post Exposure Evaluation and follow-up.**
9. **Signs and labels used by the Agency.**
10. **Hepatitis B vaccine program by the Agency.**

## **TASKS AND OTHER POTENTIALLY HAZARDOUS ACTIVITIES**

All personal protective equipment will be cleaned, laundered, and/or disposed of by the employer at no cost to employees. All repairs and replacements will be made by the employer at no cost to employees.

All garments which are penetrated by blood shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area. The following protocol has been developed to facilitate leaving the equipment at the work area:

1. Employee is to remove gear as per protocol, put it into a red closed, plastic bag, and label bag with bio-waste symbol. The bag is to be brought to the Agency and placed in an appropriate biohazard waste container.
2. Gloves shall be worn where/when it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes. Gloves will be used whenever the employee anticipates contact with client's blood or body fluids.
3. Disposable gloves used by this Agency are not to be washed or decontaminated for re-use. They are to be replaced as soon as practical after contamination or as soon as possible if they are torn, punctured, or when their ability to function as a barrier is compromised. Replacement gloves can be obtained at the Agency.
4. Masks in combination with eye protection devices, such as goggles or glasses with solid side shield, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.
5. The OSHA standard also requires appropriate protective clothing to be used, such as latex gloves, face shield, protective eyewear (with solid side shield), an apron impervious to fluid, utility gloves, and mouth shields for CPR, or in the case of potential exposure to persons experiencing episodes of vomiting, bleedings, etc.
6. Facilities in this district will be cleaned and decontaminated as needed. Gowns, masks and gloves are disposable. Wherever contamination occurs, decontamination will be accomplished by utilizing the following materials:

Bleach solution: 1:10 ratio prepared fresh when decontamination is needed or chemical germicides that are approved as disinfectants and tuberculocidal.



All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.

All receptacles shall be inspected and decontaminated on a regularly schedules basis.

Any broken glassware which may be contaminated will not be picked up directly with the hands. The following procedures will be used:

It will be cleaned up using a mechanical means, i.e. a brush and dustpan.

### **Regulated Waste Disposal**

All contaminated sharps shall be discarded as soon as feasible in sharps containers which are located at the Agency.

Regulated waste other than sharps shall be placed in appropriate containers.

**SELECTION OF PERSONAL PROTECTIVE EQUIPMENT**  
**TASK CHART**

<u>PROCEDURE</u>	<u>HAND WASHING</u>	<u>UTILITY GLOVES</u>	<u>BARRIER GOWN</u>	<u>EYEWEAR &amp; MASK</u>
Use of any non-invasive equipment.	X			
Caring for/examining clients/personnel without touching blood, body fluids, mucous membrane.	X			
Caring for/examining clients/personnel including contact with blood, body fluids, mucous membrane	X	X		
Handling soiled waste, linen, other materials.	X	X		Use gown, mask, eyewear if splat-tering is likely
Giving personal care to clients/personnel with open wounds, incontinency	X	X		Use gown, mask, eyewear if splat-tering is likely
Cleaning up spills of urine, fecal matter, or vomitus	X	X		Use gown, mask, eyewear if splat-tering is likely
Facility cleaning and maintenance of exposed area	X	X		Use gown, mask, eyewear if splat-tering is likely

**WORK PRACTICE CONTROLS**

The following work practice controls are in place in the \_\_\_\_\_ County Nursing Service.

1. **Handwashing** is required and employees have been instructed in this procedure, and know where facilities are located.
2. **Recapping of Sharps** and bending and breaking of needles is prohibited. Employees have been trained in these procedures.
3. **Disposal of Sharps** - after use, all sharps are placed in appropriate receptacle for reprocessing or disposal. The container meet the requirements as outlined by OSHA Regulations for Engineering controls. Employees have been trained in these procedures and have been instructed not to overfill containers.
4. **Eating, drinking, smoking, applying cosmetics and handling contact lenses** is prohibited in work areas where there is any risk of occupational exposure. Employees have been informed of this rule.
5. **Storage of food and drink** is prohibited in places where potentially infectious materials are kept. This applies to refrigerators, freezers, shelves, cabinets, countertops and benchtops. Employees have been informed of this rule.
6. **Sharps containers** are puncture and leak-proof. Staff has been instructed to close the containers when they are moved to prevent spillage.
7. **Closable, leakproof containers** with the appropriate color coding are available in the event that the sharps containers appear to be leaking.
8. **Closable, leakproof containers** with the appropriate color coding are available for all other regulated waste such as disposable gloves or bloodied bandages.

#### **HOUSEKEEPING**

1. Employees are responsible for ensuring that equipment or surfaces are cleaned with appropriate disinfectant and decontaminated immediately after a spill or leakage occurs and at the end of the work shift.
2. Staff has been instructed never to pick up by hand any **BROKEN GLASSWARE** that may be contaminated. A brush, dust pan, forceps and/or tongs will be available for this purpose. The implements used for these purposes are cleaned and decontaminated if the glass container held any material.
3. Sharps containers are closable and puncture and leak-proof. Staff has been instructed not to overfill the containers. Staff has been instructed to close the container when it is moved to prevent spillage.

#### **EXPOSURE INCIDENT REPORTING**

When an exposure incident occurs, the involved employee will report the incident to the nursing director/designee. The nursing director/designee will prepare an incident report, detailing the source, route, and circumstance of the exposure, the source individual's HBV/HIV status (if known) and the exposed employee's Hepatitis B vaccine status and other relevant medical information. A post-exposure form is available for documentation. A letter of medical necessity will be available for insurance purposes.

**STRICTLY ON A CONFIDENTIAL BASIS**, the nursing director/designee then evaluates the exposure incident and arranges for the exposed employee to be seen by the employee's private physician. The nursing director/designee acts as a resource person in providing counseling and post exposure prophylaxis for the exposed employee.

The attending physician then sends only his/her written opinion of the exposure to the nursing director/designee, documenting that the employee was notified of the evaluation results, where permission was given to do so, the need for any further follow-up and whether Hepatitis vaccine is indicated and if it were received.

The nursing director/designee then provides a copy of the attending physician's written opinion to the employee within 15 days of the completed evaluation.

The exposed employee has the right to refuse blood collection and/or testing. If the exposed employee gives consent for blood collection but not for HIV testing, the blood is kept for 90 days, during which time the employee can choose to have the sample tested. This information is considered confidential material between physician and employee.

All evaluations, medical follow-ups, counseling and evaluations of reported illnesses are provided at no cost to the exposed employee.

All required laboratory tests are done by an accredited laboratory at no cost to the exposed employee.

When at all possible, the exposed employee is informed of the results of the source individual's blood testing and the applicable laws governing disclosure of this information.

### **THE WRITTEN OPINION OF THE HEALTH CARE PROFESSIONAL**

Written opinions will be obtained in the following instances:

1. When the employee is sent to obtain the Hepatitis B Vaccine post-exposure.
2. Whenever the employee is sent to a health care professional following an exposure

incident.

Health care professionals shall be instructed to limit their opinions to:

1. Whether the Hepatitis B Vaccine is indicated and if the employee has received the vaccine, or if evaluation is needed following an incident.
2. The employee has been informed of the results of the evaluation.
3. The employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials.

**NOTE THAT THE WRITTEN OPINION TO THE EMPLOYER IS NOT TO REFERENCE ANY PERSONAL MEDICAL INFORMATION.**

### **RECORDKEEPING**

Confidential medical records are kept for all employees with occupational exposure. They include:

1. Employee's name and social security number.
2. Hepatitis B vaccination status (including dates of vaccinations, records relating to employee's ability to receive the vaccination, and signed declination form, where applicable);
3. All information given to evaluating health care professional in the event of the exposure incident; and
4. A copy of the evaluator's written opinion.

The confidential medical records are kept for at least thirty (30) years after the person leaves employment. Written permission from the employee is required for access to these records. Employee medical records are available upon request to the Assistant Secretary and the Director of OSHA. If the facility closes, it is understood that the employer must inform the superintendent of schools at least three months before disposing of the records. The confidential medical records will be kept in the office of the \_\_\_\_\_ County Nursing Service.

### **PLAN FOR EVALUATION OF EXPOSURE INCIDENTS**

The contact person for exposure incidents will be the nursing director/designee.

The facility evaluators for exposure incidents will be the nursing director/designee, the town health director/physician.

The following procedure for evaluation of exposure incidents is used in the \_\_\_\_ County Nursing Service:

1. Written documentation is required for every exposure incident in the \_\_\_\_\_ County Nursing Service. The documentation includes:
  - a. Name of individual exposed;
  - b. Name of source of exposure;
  - c. Description of how the incident occurred;
  - d. Date and time of incident; and written evaluation of exposure incident.
2. Written evaluation of exposure incidents includes:
  - a. Suggestions for changes in facility procedures;
  - b. A record of how these changes are implemented for each incident.
3. A copy of the exposure incident is placed in the exposed employee's medical record.

A copy of this exposure control plan will be made accessible to all employees of the \_\_\_\_\_ County Nursing Service.

This exposure control plan will be reviewed and updated by the nursing director/designee at least annually.

**LETTER OF MEDICAL NECESSITY**

DATE \_\_\_\_\_

TO WHOM IT MAY CONCERN:

Based on my examination, it is my opinion that the following is medically indicated for \_\_\_\_\_ as a result of a possible exposure to bloodborne pathogens.

\_\_\_ **1. Hepatitis B Immune Globulin**

\_\_\_ **2. Hepatitis B Vaccine**

Physician's Name \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone Number \_\_\_\_\_

Physician's Signature \_\_\_\_\_

**POST-EXPOSURE INCIDENT REPORT**

Date \_\_\_\_\_

Name: \_\_\_\_\_ Social Security No \_\_\_\_\_

**Date of Exposure** \_\_\_\_\_

Employee Previously Vaccinated Against Hepatitis B Virus: \_\_ Yes \_\_ No

DATE: (1) \_\_\_\_\_ (2) \_\_\_\_\_ (3) \_\_\_\_\_

**INCIDENT/ROUTE/EXPOSURE:**

A. Needle stick with contaminated needle to \_\_\_\_\_

B. Piercing of skin with contaminated sharp to \_\_\_\_\_

C. Splashing/spraying of blood or other potentially infectious material to \_\_\_\_\_

D. Other \_\_\_\_\_

Nurse/ Designee Signature \_\_\_\_\_

Employee Signature \_\_\_\_\_

\*\*\*\*\*

Name of Physician Responsible for Post-exposure Follow-up:

\_\_\_\_\_

Date Seen By Physician for Post-exposure Follow-up: \_\_\_\_\_

Was Hepatitis B (HBV) Vaccine given: YES\_\_\_ NO\_\_\_ Date: \_\_\_\_\_

Was Hepatitis B Immune Globulin given: YES \_\_ NO \_\_ Date: \_\_\_\_\_

Was employee counseled to any medical conditions which may result from this exposure incident.

YES \_\_\_ NO \_\_\_

Physician Signature: \_\_\_\_\_

Please provide a LETTER OF MEDICAL NECESSITY if Hepatitis B Vaccine was administered.

Please return to the \_\_\_\_\_ County Nursing Service. A copy of this document will be retained until the original is completed by your physician and returned to this office.



## **HEPATITIS B VACCINE**

All employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials unless the employee has previously had the vaccine or who wishes to submit to antibody testing which shows the employee to have sufficient immunity.

Employees who decline the Hepatitis B vaccine will sign a waiver which uses the wording in Appendix A of the OSHA standard.

Employees who initially decline the vaccine but who later wish to have the vaccine provided at no cost. The vaccine will be administered by the \_\_\_\_\_ Nursing Service.

Exceptions to offering vaccine:

1. Previously vaccinated.
2. Screening testing reveals person is immune.
3. Contraindicated for medical reasons.

The following information on Hepatitis B vaccine will be distributed to all identified employees annually and upon initial employment.

**HEPATITIS B REQUEST/DECLINATION**

\_\_\_\_ I hereby request the series of Hepatitis B vaccine injections

\_\_\_\_ I hereby decline this series as I:

- a. have previously received the series of Hepatitis vaccine injections.
- b. have a positive antibody titer.
- c. should not receive the Hepatitis B vaccine for medical reasons.

\_\_\_\_ I hereby decline the Hepatitis vaccine injections.

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk acquiring Hepatitis B virus (HBV) infections. I have been given the opportunity to be vaccinated with Hepatitis B, at no charge to myself. However, I decline this vaccine at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

SIGNED \_\_\_\_\_ ON: \_\_\_\_\_  
(Employee) (Date)

\_\_\_\_\_  
Print Name

## **UNIVERSAL PRECAUTIONS**

The \_\_\_\_\_ County Nursing Service will follow Universal Precautions as set forth by the Center for Disease Control (see attachment). All policies and procedures will be assessed on an ongoing basis to determine compliance and to correct any deficiencies. Inappropriate practices will be corrected immediately.

### **I. EMPLOYEE PRACTICES**

All identified employees providing first aid and/or emergency care will have:

1. Orientation and continuing education regarding the epidemiology, modes of transmission and prevention of HIV and other bloodborne infections and the need for universal blood and body fluid precautions for all patients and proper management of biomedical waste.
2. The option of receiving Hepatitis B Vaccine at no cost to them.
3. Equipment and supplies necessary to minimize the risk of infection with HIV and other bloodborne pathogens. Equipment will include gloves, impervious aprons or gowns, masks, goggles, puncture resistant sharps containers and mouth to mask ventilation devices.
4. Monitoring of adherence to recommended protective measures with counseling and re-education as appropriate.
5. Follow-up for all exposures. All mucus membrane exposures to blood and body fluids will be reported to the nursing director/designee incident report completed. The injured or ill person will be informed, evaluated and tested, with consent, for evidence of infection. The employee will be counseled regarding the risk of infection. Clinical evaluation, serological testing and follow-up of employee will be individualized dependent on the clinical information on the source patient and the immunization status of the employee. Serological testing will be available to any employee concerned he/she has become infected.

### **II. INFECTION CONTROL PRACTICES**

Since medical history and examination cannot reliably identify all patients infected with HIV or other bloodborne pathogens, blood and body fluid precautions should be consistently used for all persons. This approach, previously recommended by CDC and referred to as "universal blood and body-fluid precautions" or "universal precautions", should be used in the care of all persons.

### 1. Hand Washing

Wash hands thoroughly using a liquid soap before and after contact with all persons, and after contact with soiled items or any body fluids. Dry hands with paper towels and turn off faucet using the paper towel. Hands should be washed immediately after gloves are removed.

### 2. Barrier Precautions

All identified employees should routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any person is anticipated. Gloves should be worn for touching blood and body fluids, mucous membranes, non-intact skin of all persons, for handling items or surfaces soiled with blood or body fluids. Gloves should be changed after contact with each person. Masks and protective eye wear or face shields should be worn during situations that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth/ nose and eyes. Gowns or aprons should be worn during situations that are likely to generate splashes of blood or other fluids.

Identified employees who have open cuts or sores should refrain from all direct assistance until the condition resolves.

### 3. Environment

Surfaces contaminated with blood or body fluids will be disinfected with a solution of 1/4 cup bleach/gallon of water. The solution will be left on for 10 minutes before rinsing and wiping dry. The solution will be prepared fresh daily.

Routine cleaning of any exposed bathroom may be done using a cleanser containing chlorine bleach. If carpets become soiled, they should be thoroughly cleaned with soap and water.

## III. BIOMEDICAL WASTE MANAGEMENT

### 1. Identification/Definitions:

#### Non-Sharps:

Materials which include but are not limited to: any discarded supplies that are "saturated and/or dripping" with blood or a regulated body fluid, or were saturated and/or dripping but now are caked and dried.

All body fluids - including vomitus.

Discarded supplies - saturated dressing gauze, table paper, gowns, gloves.

Isolation waste - any waste generated from a patient that has one of the diseases as specified in the CDC guidelines.

2. **Packaging/Segregation/Storage/Labeling:**

No category of biomedical waste will be mixed with, or placed in a primary container with any other category of biomedical waste.

**Non-sharp medical waste:** Will be placed in a leak resistant bag and tied. A 3" x 5" label with the facility's name and address is affixed to bag and it is placed in a rigid, leak-resistant container or box which has a red liner or biohazard symbol and is stored in an out of the way place.

3. **Tracking:**

When any primary container is full, Safeway Central Collection Facility (or other biomedical waste management company meeting the EPA and CDC guidelines) will be called for removal, transport and disposal. Documentation will be maintained to verify date of pick-up, quantity and class of biomedical waste, central collection facility address, name of person transporting waste, and disposition of waste. Such documentation will be maintained for three (3) years. If a receipt verifying disposition of waste is not received from transporter within 45 days, the DEP will be notified.

**OSHA BLOODBORNE PATHOGENS  
EMPLOYEE TRAINING MANUAL**

## FACTS

### OSHA Bloodborne Pathogens Final Standard

#### Summary of Key Provisions

**PURPOSE:** Limits occupational exposure to blood and other potentially infectious materials since any exposure could result in transmission of bloodborne pathogens which could lead to disease or death.

**SCOPE:** Covers all employees who could be "reasonably anticipated" as the result of performing their job duties to face contact with blood and other potentially infectious materials. OSHA has not attempted to list all occupations where exposures could occur. "Good Samaritan" acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid visibly contaminated with blood and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. They also include any unfixed tissue or organ other than intact skins from a human (living or dead) and human immunodeficiency virus (HIV)-containing cell or tissue cultures, organ cultures and HIV or hepatitis B (HBV)-containing culture medium or other solutions as well as blood, organs or other tissues from experimental animals infected with HIV or HBV.

**EXPOSURE CONTROL PLAN:** Requires employers to identify, in writing, tasks and procedures as well as job classifications where occupational exposure to blood occurs--without regard to personal protective clothing and equipment. It must also set forth the schedule for implementing other provisions of the standard and specify the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update it at least annually--more often if necessary to accommodate workplace changes.

**METHODS OF COMPLIANCE:** Mandates universal precautions, (treating body/fluids/materials as if infectious) emphasizing engineering and work practice controls. The standard stresses handwashing and requires employers to provide facilities and ensure that employees use them following exposure to blood. It sets forth procedures to minimize needlesticks, minimize splashing and spraying of blood, ensure appropriate packaging of specimens and regulated wastes and decontaminate equipment or label it as contaminated before shipping to servicing facilities.

Employers must provide, at no cost, and require employees to use appropriate personal protective equipment such as gloves, gowns, masks, mouthpieces and resuscitation bags and must clean, repair, and replace these when necessary. Gloves are not necessarily required for routine phlebotomies in volunteer blood donation centers but must be made available to employees who want them.

The standard requires a written schedule for cleaning, identifying and method of decontamination to be used, in addition to cleaning following contact with blood or other potentially infectious materials. It specifies methods for disposing of contaminated sharps and sets forth standards for containers for these items and other regulated waste. Further, the standard includes provisions for handling contaminated laundry to minimize exposures.

**HIV AND EBV RESEARCH LABORATORIES AND PRODUCTION FACILITIES:** Calls for these facilities to follow standard microbiological practices and specifies additional practices intended to minimize exposures of employees working with concentrated viruses and reduce the risk of accidental exposure for other employees at the facility. These facilities must include required containment equipment and an autoclave for decontamination of regulated waste and must be constructed to limit risks and enable easy clean up. Additional training and experience requirements apply to workers in these facilities.

**HEPATITIS B VACCINATION:** Requires vaccinations to be made available to all employees who have occupational exposure to blood within 10 working days of assignment, at no cost, at a reasonable time and place, under the supervision of licensed physician/licensed healthcare professional and according to the latest recommendations of the U.S. Public Health Service (USPHS). Prescreening may not be required as a condition of receiving the vaccine. Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. Should booster doses later be recommended by the USPHS, employees must be offered them.

**POST-EXPOSURE EVALUATION AND FOLLOW UP:** Specifies procedures to be made available to all employees who have had an exposure incident plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow-up must include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee's blood if he/she consents, post-exposure prophylaxis counseling and evaluation of reported illnesses. Healthcare professionals must be provided information to facilitate the evaluation and their written opinion on the need for hep. B vaccination following the exposure. Information such as the employee's ability to receive the vaccine must be supplied to the employer. All diagnosis must be confidential.



**HAZARD COMMUNICATION:** Requires warning labels including the orange or orange-red biohazard symbol affixed to containers of regulated waste, refrigerators and freezers and other containers which are used to store or transport blood or other potentially infectious materials. Red bags or containers may be used instead of labeling. When a facility uses universal precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal precautions, the laundry need not be labelled. Blood which has been tested and found free of HIV or HBV and released for clinical use, and regulated waste which has been decontaminated, need not be labeled. Signs must be used to identify restricted areas in HIV and HBV research laboratories and production facilities.

**INFORMATION AND TRAINING:** Mandates training within 90 days of effective date, initially upon assignment and annually--employees who have received appropriate training within the past year need only receive additional training in items not previously covered. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipment, hepatitis B vaccine, response to emergencies involving blood, how to handle exposure incidents, the post-exposure evaluation and follow-up program, signs/labels/color-coding. There must be opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter. Laboratory and production facility workers must receive additional specialized initial training.

**RECORDKEEPING:** Calls for medical records to be kept for each employee with occupational exposure for the duration of employment plus 30 years, must be confidential and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy or the healthcare professional's written opinion; and a copy of information provided to the healthcare professional. Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, names and job titles of all persons attending the sessions. Medical records must be made available to the subject employee, anyone with written consent of the employee, OSHA and NIOSH---they are not available to the employer. Disposal of records must be in accord with OSHA's standard covering access to records.

**DATES:** Sets effective date 90 days after publication in the Federal Register. Exposure control plan must be completed within 60 days of the effective date. Information and Training requirements take effect 90 days following the effective date. And the following other provisions take effect 120 days after the effective date: engineering, housekeeping, special provisions covering HIV and HBV research laboratories and production facilities, hepatitis B vaccination and post-exposure evaluation and follow-up and labels and signs.

**EMPLOYEE CATEGORIES**

- I. NURSES                    Most likely to be exposed**  
**SCREENERS**  
**WIC STAFF DOING HEMATOCRITS**  
**CUSTODIANS**

**Job related tasks that involve exposure to blood, body fluids, or tissue.**

<b>BLOOD</b>	<b>RESPIRATORY SECRETIONS</b>
<b>VOMITUS</b>	<b>SALIVA</b>
<b>URINE</b>	<b>TEARS</b>
<b>FECES</b>	<b>DRAINAGE FROM SCRAPES, CUTS</b>

- II ADMINISTRATORS                    Least likely to be exposed**  
**SECRETARIES**

**Tasks involved no hazardous exposure, but employment may require performing unplanned Category 1 tasks.**

<b>BLOOD</b>	<b>TEARS</b>
<b>VOMITUS</b>	<b>RESPIRATORY SECRETION</b>

	<b>HEPATITIS B (HBV)</b>	<b>HEPATITIS C (HCV)</b>	<b>HIV/AIDS</b>
<b>VIRUS</b>	Stable	Stable	Fragile
<b>INCIDENCE</b>	World-Wide	World-Wide	World-Wide
<b>HIGH-RISK</b>	IV Drug Users Homosexual Heterosexual & Multiple Partners	IV Drug Users, Alcoholics Anyone who has had a blood transfusion before 1992 Multiple sex partners	IV Drug Users Homosexual Heterosexual & Multiple Partners
<b>COMMUNICABILITY</b>	15 x Greater than AIDS	Highly communicable - 10 <sup>th</sup> leading cause of death	
<b>TRANSMISSION</b>	Blood/Blood Products Semen, vaginal secretions	Blood/Blood Products <b>NOT</b> easily spread through sex	
<b>INCUBATION</b>	2-6 Months 1/3 = no symptoms - carriers virus shed in 6 mos. 1/3 = some symptoms - carriers 1/3 = full-blown disease develops	2-25 weeks. Average 7 to 9 weeks	3-6 Months HIV Positive (8-15 yrs) AIDS
<b>SYMPTOMS</b>	Fever Anorexia Rash Joint Pain	Same as HBV	Mono-like symptoms Anorexia Nightsweats Fatigue
<b>COMPLICATIONS</b>	Cirrhosis Predisposition to liver cancer Jaundice Death	Liver Inflammation Cirrhosis Cancer	Persistent cold/flu like symptoms Opportunistic diseases Death
<b>VACCINE</b>	Yes	No	No
<b>PRECAUTIONS</b>	Environmental safeguards Education Personal Protective Equipment Universal Precautions Vaccine	Safe sex Environmental safeguards Education Personal Protective Equipment Universal Precautions	Environmental safeguards Education Personal Protective Equipment Universal Precautions

# **BLOODBORNE FACTS**

## **HEPATITIS B VACCINATION -- PROTECTION FOR YOU**

### **What is HBV?**

Hepatitis B virus (HBV) is a potentially life-threatening bloodborne pathogen. Centers for Disease Control estimates there are approximately 280,000 HBV infections each year in the U.S.

Approximately 8,700 health care workers each year contract hepatitis B, and about 200 will die as a result. In addition, some who contract HBV will become carriers, passing the disease on to others. Carriers also face a significantly higher risk for other liver ailments which can be fatal, including cirrhosis of the liver and primary liver cancer.

HBV infection is transmitted through exposure to blood and other infectious body fluids and tissues. Anyone with occupational exposure to blood is at risk of contracting the infection.

Employers must provide engineering controls; workers must use work practices and protective clothing and equipment to prevent exposure to potentially infectious materials. However, the best defense against hepatitis B is vaccination.

### **WHO NEEDS VACCINATIONS?**

The new OSHA standard covering bloodborne pathogens requires employers to offer the three-injection vaccination series free to all employees who are exposed to blood or other potentially infectious materials as part of their job duties. This includes health care workers, emergency responders, morticians, first-aid personnel, law enforcement officers, correctional facilities staff, launderers, as well as others.

The vaccination must be offered within 10 days of initial assignment to a job where exposure to blood or other potentially infectious materials can be "reasonably anticipated." The requirements for vaccinations of those already on the job take effect July 6, 1992.

### **WHAT DOES VACCINATION INVOLVE?**

of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine.

The second injection should be given one month after the first, and the third injection six months after the initial dose.

More than 90% of those vaccinated will develop immunity to the hepatitis B virus. To ensure immunity, it is important for individuals to receive all three injections. At this point it is unclear how long the immunity lasts, so booster shots may be required at some point in the future.

The vaccine causes no harm to those who are already immune or to those who may be HBV carriers. Although employees may opt to have their blood tested for antibodies to determine need for the vaccine, employers may not make antibody screening a condition of receiving vaccination nor are employers required to provide prescreening.

### **WHAT IF I DECLINE VACCINATION?**

Workers who decide to decline vaccination must complete a declination form. Employers must keep these forms on file so that they know the vaccination status of everyone who is exposed to blood. At any time after a worker initially declines to receive the vaccine, he or she may opt to take it.

### **WHAT IF I AM EXPOSED BUT HAVE NOT YET BEEN VACCINATED?**

If a worker experiences an exposure incident, such as a needlestick or a blood splash in the eye, he/she must receive confidential medical evaluation from a licensed health care professional with appropriate follow-up. To the extent possible by law, the employer is to determine the source individual for HBV as well as HIV infectivity. The worker's blood will also be screened if he or she agree.

The healthcare professional is to follow the guidelines of the U.S. Public Health Service in providing treatment. This would include hepatitis B vaccination. The health care professional must give a written opinion on whether the employee received it. Employee medical records must remain confidential. HIV or HBV status must NOT be reported to the employer.

**PERSONAL PROTECTIVE EQUIPMENT****CATEGORY I**

Handwashing

Gloves-Disposable/Utility

Gown \*

Mask \*

Eyewear \*

CPR Mask \*

\*As incident requires

**CATEGORY II**

Gloves-Disposable

**HANDWASHING:**

Soap and running water

Vigorous washing - 10 seconds

**DISINFECTANTS:**

Household bleach (1/2 cup to 1 gallon water)

Appropriately label commercial products

Ethyl Alcohol (70%)

NOTE: Treat all bodily fluids as potentially hazardous. Wear gloves whenever you come into contact with any bodily fluid. Blood may be present either visible or invisibly to the eye.

# **BLOODBORNE FACTS**

## **PERSONAL PROTECTIVE EQUIPMENT CUTS RISK**

Wearing gloves, gowns and eye protection can significantly reduce health risks for workers exposed to blood and other potentially infectious materials. The new OSHA standard covering bloodborne disease requires employers to provide appropriate personal protective equipment (PPE) and clothing free of charge to employees.

Workers who have direct exposure to blood and other potentially infectious materials on their jobs run the risk of contracting bloodborne infections from hepatitis B virus (HBV), human immunodeficiency virus (HIV) which causes AIDS, and other pathogens. About 8,700 health care workers each year are infected with HBV, and 200 die from the infection. Although the risk of contracting AIDS through occupational exposure is much lower, wearing proper PPE can greatly reduce potential exposure to all bloodborne infections.

### **SELECTING PPE**

Personal protective clothing and equipment must be suitable. This means the level of protection must fit the expected exposure. For example, gloves would be sufficient for a laboratory technician who is drawing blood, whereas a pathologist conducting an autopsy would need considerably more protective clothing.

Personal protective equipment may include gloves, gowns, laboratory coats, face shields or masks, eye protection, pocket masks, and other protective gear. The gear must be readily accessible to employees and available in appropriate sizes.

If an employee is expected to have hand contact with blood or other potentially infectious materials or contaminated surfaces, he/she must wear gloves. Single use gloves cannot be washed or decontaminated for reuse. Utility gloves may be decontaminated if they are not compromised. They should be replaced when they show signs of cracking, peeling, tearing, puncturing or deteriorating. If employees are allergic to standard gloves, the employer must provide hypoallergenic gloves or similar alternatives.

Routine gloving is not required for phlebotomy in voluntary blood donation centers, although it is necessary for all other phlebotomies. In any case, gloves must be available in voluntary blood donation centers for employees who want to use them. Workers in voluntary blood donation centers must use gloves (1) when they have cuts, scratches or other breaks in their skin; (2) while they are in training; and (3) when they believe contamination might occur.

Employees should wear eye and mouth protection such as goggles and masks, glasses with solid side shields, and masks or chin-length face shields when splashes, sprays, splatters or droplets of potentially infectious materials pose a hazard through the eyes, nose or mouth. More extensive coverings such as gowns, aprons, surgical caps and hoods, and shoe

## **AVOIDING CONTAMINATION**

The key is that blood or other infectious materials must not reach an employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions for the duration of exposure.

Employers must provide the personal protective equipment and ensure that their workers wear it. This means that if a lab coat is considered personal protective equipment, it must be supplied by the employer rather than the employee. The employer also must clean or launder clothing and equipment and repair or replace it as necessary.

Additional protective measures such as using PPE in animal rooms and decontaminating PPE before laundering are essential in facilities that conduct research on HIV or HBV.

### **EXCEPTION**

There is one exception to the requirement for protective gear. An employee may choose, temporarily and briefly, under rare and extraordinary circumstances, to forego the equipment. It must be the employee's professional judgement that using the personal protective equipment would prevent the delivery of health care or public safety service or would pose an increased hazard to the safety of the worker or co-worker. When one of these excepted situations occurs, employers are to investigate and document the circumstances to determine if there are ways to avoid it in the future. For example, if a firefighter's resuscitation device is damaged, perhaps another type of device should be used or the device should be carried in a different manner. Exceptions must be limited--this is not a blanket exemption.

### **DECONTAMINATING AND DISPOSING OF PPE**

Employees must remove personal protective clothing and equipment before leaving the work area or when the PPE becomes contaminated. If a garment is penetrated, workers must remove it immediately or as soon as feasible. Used protective clothing and equipment must be placed in designated containers for storage, decontamination, or disposal.

### **OTHER PROTECTIVE PRACTICES**

If an employee's skin or mucous membranes come into contact with blood, he or she is to wash with soap and water and flush eyes with water as soon as possible. In addition, workers must wash their hands immediately or as soon as feasible after removing protective equipment. If soap and water are not immediately available, employers may provide other handwashing measures such as moist towelettes. Employees still must wash with soap and water as soon as possible.

Employees must refrain from eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses in areas where they may be exposed to blood or other potentially infectious materials.

## UNIVERSAL PRECAUTIONS

**Universal precautions** are intended to prevent occupational exposure to a bloodborne infectious agent through contact with blood and other potentially infectious materials. Since blood is the single most important source of a bloodborne infectious agent, ie., HIV and Hepatitis B virus in the occupational setting, one should assume that ALL blood or body fluids containing visible blood, may carry an infectious agent. (MMWR 8/21/87 and 6/24/88).

### **UNIVERSAL PRECAUTIONS REQUIRE THAT:**

1. **Gloves be used for touching blood or any body fluids whenever possible.**
  - a. **These gloves either latex or vinyl, provide a barrier when contact with blood is likely.**
  - b. **These gloves must never be washed or reused.**
  - c. **Handwashing is a must after disposing of gloves.**
2. **Gowns or protective clothing should be used if soiling of clothing with blood or blood-containing body fluids is likely.**
3. **Protective eyewear or face shields may be needed when there is a risk of spattering or splashing blood or body fluids containing blood in the eyes, mouth or nose.**
4. **Universal precautions do not apply to saliva. Gloves need not be used when wiping saliva or nasal discharge with a tissue.**
5. **Universal precautions do not apply to urine, feces, nasal secretions, sputum, sweat, tears or vomitus unless visible blood is present.**
6. **General infection control practices for the prevention of transmission of other types of infectious agents do recommend the use of gloves when diapering, assisting with toileting, changing a dressing on a draining wound or cleaning soiled articles of clothing.**

## HAND WASHING

**Employers must provide hand washing facilities that are readily accessible to employees.**

**Hand washing is the most effective way to reduce the spread of disease**

### **METHOD:**

- \* **Use soap (liquid is best\*) and warm running water.**
- \* **Rub hands together vigorously for at least 30 seconds.**
- \* **Remember all surfaces including thumbs, wrists, back of hands, between fingers, around and under nails.**
- \* **Rinse hands well, letting water drain from wrists to fingers - don't turn off faucet.**
- \* **Dry hands with paper towel, then use same towel to turn off faucet.**
- \* **Discard towel.**

\*Use of bar soap is discouraged as bacteria can grow on bar soap and soap dishes.

## ALWAYS

- **Wash hands before beginning care/first aid.**
- **Wash hands before and after use of the bathroom.**
- **Wash hands in-between delivery care/first aid.**
- **Wash hands before handling clean equipment and after handling dirty equipment.**
- **Wash hands before and after eating.**
- **Wash hands before handling food.**
- **Wash hands before going off duty.**



**EXPOSURE INCIDENT REPORTING**

1. Report incident to nursing director/designee.

2. Nurse

- \* informs supervisor who informs the medical director
- \* completes incident report
- \* refers exposed person to appropriate medical personnel

3. Physician

- \* evaluates incident
- \* takes appropriate course of action
- \* sends report to nursing director/designee

4. Report includes

- \* whether Hepatitis B vaccine is indicated
- \* statement that employee has been informed appropriate action
- \* statement that employee has been told about any medical conditions which may result from exposure to blood or other potentially infectious materials
- \* NO PERSONAL MEDICAL INFORMATION.

## **BLOODBORNE FACTS**

### **REPORTING EXPOSURE INCIDENTS**

OSHA's new bloodborne pathogens standard provides for medical follow-up for workers who have an exposure incident. The most obvious exposure incident is a needlestick. But any specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials is considered an exposure incident and should be reported to the employer.

Exposure incidents can lead to infection from hepatitis B or human immunodeficiency virus which causes AIDS. Although few cases of AIDS are directly traceable to workplace exposure, every year about 8,700 health care workers contract hepatitis B from occupational exposures. Approximately 200 will die from this bloodborne infection. Some will become carriers, passing the infection on to others.

### **WHY REPORT?**

Reporting right away permits immediate medical follow-up and early action is crucial. Immediate intervention can forestall the development of hepatitis B or enable the affected worker to track potential HIV infection. Prompt reporting also can help the worker avoid spreading bloodborne infections, enable the employer to evaluate the circumstances surrounding the exposure incident to try to find ways to prevent such a situation from occurring again.

Reporting is also important because part of the follow-up includes testing the blood of the source individual to determine HBV and HIV infectivity if this is unknown and if permission for testing can be obtained. The exposed employee must be informed of the results of these tests. Employers must tell the employee what to do if an exposure incident occurs.

### **MEDICAL EVALUATION AND FOLLOW-UP**

Employers must provide free medical evaluation and treatment to employees who experience an exposure incident. They are to refer exposed employees to a licensed health care provider who will counsel the individual about what happened and how to prevent further spread of any potential infection. He/she will prescribe appropriate treatment in line with current U.S. Public Health Service recommendations. The licensed health care provider also will evaluate any reported illness t

to determine if the symptoms may be related to HIV or HBV development.

The first step is to test the blood of the exposed employee. Any employee who wants to participate in the medical evaluation program must agree to have blood drawn. However, the employee has the option to give the blood sample but refuse permission for HIV testing at that time. The employer must maintain the employee's blood sample for 90 days in case the employee changes his/her mind about testing--should symptoms develop that might relate to HIV or HBV infection.

The health care provider will counsel the employee based on the test results. If the source individual was HBV positive or in a high risk category, the exposed employee may be given hepatitis B immune globulin and vaccination, as necessary. If there is not information on the source individual or the test is negative, and the employee has not been vaccinated or does not have immunity bases on her/his test, he/she may receive the vaccine. Further, the health care provider will discuss any other findings from the tests.

The standard requires that the employer make the hepatitis B vaccine available, at no cost to the employee, to all employees who have occupational exposure to blood and other potentially infectious materials. This requirement is in addition to post-exposure testing and treatment responsibilities.

### **WRITTEN OPINION**

In addition to counseling the employee, the health care provider will provide a written report to the employer. This report simply identifies whether hepatitis B vaccine was recommended for the exposed employee and whether or not the employee received the vaccine. The health care provider also must note that the employee has been informed of the results of the evaluation and told of any medical conditions resulting from exposure to blood which require further evaluation or treatment. Any added findings must be kept confidential.

### **CONFIDENTIALITY**

Medical records must remain confidential. They are not available to the employer. The employer must

