

## **Bloodborne Pathogens Control Plan**



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**STATEMENT OF PURPOSE**

This Bloodborne Pathogens Exposure Control Plan was developed and disseminated to promote the safety and health of Cal Poly Humboldt employees who, as part of their assigned duties, have occupational exposure to bloodborne pathogens. This document complies with the requirements of the California Code of Regulations Title 8, §5193, Bloodborne Pathogens.

The bloodborne pathogens standard was originally promulgated pursuant to Labor Code §142.3(a)(2) and, therefore, is required by law to be at least as effective as its federal equivalent, 29 Code of Federal Regulations, §1910.1030.

This plan incorporates the revised and appended elements that were promulgated by the Cal/OSHA standards board on 5 February 1997 and which became operative on 30 July 1999 pursuant to Government Code §11343.4(d).

The effect of the amendments is, in some parts, to clarify and reorganize existing requirements without changing them substantively, and in other parts, to increase protection to covered employees and thereby make the standard more effective than its federal equivalent.

The consultative source for this plan at CAL POLY HUMBOLDT is the EH&S Coordinator/Biosafety Officer. Questions and comments pertaining to the content of this plan should be directed to same, by email, [sabrina.zink@humboldt.edu](mailto:sabrina.zink@humboldt.edu) or by calling extension 3302.

**CONTACT INDIVIDUALS**

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  - (707) 826-3302 (Monday through Friday - 8AM to 5PM)
- Cris Koczera, Director RM&SS
  - (707) 826-4635 (Monday through Friday - 8AM to 5PM)
- University Public Safety
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**DEPARTMENTS COVERED BY THIS PLAN**

- Athletics
- Kinesiology
- Child Development Laboratory
- Environmental Health & Safety
- Student Housing Services
- Cal Poly Humboldt Children’s Center
- FM (Custodians, Grounds, Sustainability)
- Student Health Center
- University Police

**EXPOSURE DETERMINATIONS**

<b><u>All employees w/ Occupational Exposure</u></b>	<b><u>Some employees w/ Occupational Exposure</u></b>	<b><u>Tasks &amp; Procedures w/ Occupational Exposure</u></b>
<b>Student Health Center</b> <ul style="list-style-type: none"> <li>• Physicians Nurses</li> <li>• Certified Nurse Practitioners</li> </ul>	<b>Student Health Center</b> <ul style="list-style-type: none"> <li>• Clerical Staff</li> </ul>	<b>Student Health Center</b> <ul style="list-style-type: none"> <li>• Minor surgery</li> <li>• Phlebotomy</li> </ul>

<b>All employees w/ Occupational Exposure</b>	<b>Some employees w/ Occupational Exposure</b>	<b>Tasks &amp; Procedures w/ Occupational Exposure</b>
<ul style="list-style-type: none"> <li>Licensed Vocational Nurses</li> </ul> <b>Student Health Center Cont'd.</b> <ul style="list-style-type: none"> <li>Certified Laboratory Technologists</li> <li>Certified Laboratory Assistants</li> <li>Certified Phlebotomists</li> <li>Clinical Aids</li> </ul>	<ul style="list-style-type: none"> <li>Certified X-Ray Technologists</li> </ul> <b>Student Health Center Cont'd.</b> <ul style="list-style-type: none"> <li>Administrative Personnel</li> <li>Student Assistants</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of IV catheter</li> </ul> <b>Student Health Center Cont'd.</b> <ul style="list-style-type: none"> <li>Patient Examinations</li> <li>Emergency response to trauma</li> <li>Laboratory specimen procurement and analysis</li> <li>Central Supply</li> </ul>
<b>University Public Safety</b> <ul style="list-style-type: none"> <li>Public Safety Officers</li> </ul>	<b>University Public Safety</b> <ul style="list-style-type: none"> <li>Parking Control Officers</li> <li>Dispatchers</li> <li>Clerical Staff</li> <li>Administrative Personnel</li> <li>FM &amp; Housing Services</li> <li>Custodial Staff</li> </ul>	<b>University Public Safety</b> <ul style="list-style-type: none"> <li>Response to incidents that require administration of first aid</li> <li>Arrest of criminal suspects</li> </ul>
	<b>FM &amp; Housing Services</b> <ul style="list-style-type: none"> <li>Custodial Staff</li> </ul>	<b>FM &amp; Housing Services</b> <ul style="list-style-type: none"> <li>Transporting medical waste from exam rooms in the SHU to Med Waste Storage Area</li> <li>Transfer of medical waste from Athletics to the SHU</li> <li>Cleaning of student residences</li> </ul>
	<b>Athletics</b> <ul style="list-style-type: none"> <li>Trainers</li> <li>Coaches</li> </ul>	<b>Athletics</b> <ul style="list-style-type: none"> <li>Administration of first aid to injured athletes</li> </ul>
	<b>Environmental Health &amp; Safety</b> <ul style="list-style-type: none"> <li>EH&amp;S Specialist(s)</li> <li>BSO</li> </ul>	<b>Environmental Health &amp; Safety</b> <ul style="list-style-type: none"> <li>Emergency response to exposure incidents involving human blood and OPIM</li> </ul>
	<b>Cal Poly Humboldt Children's Center</b> <ul style="list-style-type: none"> <li>Center Staff</li> </ul>	<b>Cal Poly Humboldt Children's Center</b> <ul style="list-style-type: none"> <li>First Aid</li> </ul>
	<b>Child Development Lab</b> <ul style="list-style-type: none"> <li>Laboratory Staff</li> </ul>	<b>Child Development Lab</b> <ul style="list-style-type: none"> <li>First Aid</li> </ul>
	<b>Academic Programs</b> <ul style="list-style-type: none"> <li>Students</li> <li>Faculty</li> </ul>	<b>Academic Programs</b> <ul style="list-style-type: none"> <li>Research involving human blood or OPIM</li> </ul>

## Methods of Compliance:

### STANDARD PRECAUTIONS TO PREVENT TRANSMISSION OF BLOOD-BORNE DISEASES

#### Handwashing

- Hands must be washed, promptly after contact with blood or OPIM and contaminated items, whether or not gloves are worn.
- Hands must be washed after gloves are removed, between patient (victim) contacts, and when otherwise indicated to avoid transfer of microorganisms to
- other patients, staff, or environments.
- Hands must be washed between tasks and procedures on the same individual to prevent cross-contamination of different body sites.
- Use an antimicrobial soap and hot water for routine hand washing.

#### Gloves

- Wear gloves (clean, non-sterile gloves are adequate) when contact with blood or OPIM and contaminated items is a possibility.  
Put on clean gloves just before contact with mucous membranes and non-intact skin.
- Change gloves between tasks and procedures on the same patient after contact with material that may contain a high concentration of microorganisms.
- Remove gloves promptly after use, before contact with non-contaminated items and environmental surfaces, and before going to another patient. Wash hands
- immediately to avoid transfer of microorganisms to other patients or environments.

#### Mask, Eye Protection, Face Shield

- Wear a mask and eye protection or a face shield to protect mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood or OPIM.

#### Gown

- Wear a gown (a clean, non-sterile gown is adequate) to protect skin and to
- prevent soiling of clothing during procedures and patient-care activities that are likely to generate splashes or sprays of blood or OPIM.
- Select a gown that is appropriate for the activity and amount of fluid likely to be
- encountered.
- Remove a soiled gown as promptly as possible, and wash hands to avoid transfer of microorganisms to other patients or environments.

#### Patient-Care Equipment

- Handle used patient-care equipment soiled with blood or OPIM in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of microorganisms to other patients and environments.
- Ensure that reusable equipment is not used for the care of another patient until it
- has been cleaned and reprocessed appropriately. Ensure that single-use items are discarded properly.

### **Environmental Control**

- Ensure that adequate procedures are in place for the routine care, cleaning, and disinfection of environmental surfaces, equipment, and other frequently touched surfaces, and ensure that these procedures are being followed.

### **Linens**

- Handle, transport, and process used linen soiled with blood or OPIM in a manner that prevents skin and mucous membrane exposures and contamination of clothing, and that avoids transfer of microorganisms to other patients and environments.
- Linens should be carefully rolled into a bundle for laundering or disposal. Do not
- handle linens in a manner that might create aerosols.

### **Occupational Health and Bloodborne Pathogens**

- Employees shall take care to prevent injuries when using needles, scalpels, and other sharp instruments or devices; when handling sharp instruments after procedures; when cleaning used instruments; and when disposing of used needles.
- Never recap used needles, or otherwise manipulate them using both hands, or use any other technique that involves directing the point of a needle toward any part of the body; rather, use the engineered sharps protection device.
- Do not remove used needles from disposable syringes by hand, and do not bend, break, or otherwise manipulate used needles by hand.
- Place used disposable syringes and needles, scalpel blades, and other sharp items in appropriate puncture-resistant containers, which are located as close as practical to the area in which the items were used, and place reusable syringes and needles in a puncture-resistant container for transport to the reprocessing area.
- Use mouthpieces, resuscitation bags, or other ventilation devices as an alternative to mouth-to-mouth resuscitation methods in areas where the need for resuscitation is predictable.

### **Patient Placement**

- Place a patient (victim) who might contaminate the environment or who does not (or cannot be expected to) assist in maintaining appropriate hygiene or environmental control in a private room (area).

## **ENGINEERING AND WORKPLACE CONTROLS**

### **General Requirements**

- Engineering controls shall be examined during the second week of the fall semester and maintained or replaced to ensure their effectiveness.
- Work practice controls shall be reviewed during the third week of the fall semester to ensure their effectiveness.
- All procedures involving blood or OPIM shall be performed in such a manner as to minimize splashing, spraying, spattering and generation of droplets of these substances.

### **Specific Requirements**

Needleless Systems, Needle Devices and Non-Needle Sharps.

- **Needleless Systems.** Needleless systems shall be used for:
  - Withdrawal of body fluids after initial venous or arterial access is established;
  - Administration of medications or fluids; and
  - Any other procedure involving the potential for an exposure incident for which a needleless system is available as an alternative to the use of needle devices.
  
- **Needle Devices.** If needleless systems are not used, needles with engineered sharps injury protection shall be used for:
  - a. Withdrawal of body fluids;
    - Accessing a vein or artery;
    - Administration of medications or fluids; and
    - Any other procedure involving the potential for an exposure incident for which a needle device with engineered sharps injury protection is available.
  
- **Non-Needle Sharps.** If sharps other than needle devices are used, these items shall include engineered sharps injury protection.

### **Exceptions**

The following exceptions apply to the engineering controls:

- **Market Availability.** The engineering control is not required if it is not available in the marketplace.
  
- **Patient Safety.** The engineering control is not required if a licensed healthcare professional directly involved in a patient's care determines, in the reasonable exercise of clinical judgment, that use of the engineering control will jeopardize the patient's safety or the success of a medical, dental or nursing procedure involving the patient. The determination shall be documented.
  
- **Safety Performance.** The engineering control is not required if the employer can demonstrate by means of objective product evaluation criteria that the engineering control is not more effective in preventing exposure incidents than the alternative used by the employer.
  
- **Availability of Safety Performance Information.** The engineering control is not required if the employer can demonstrate that reasonably specific and reliable information is not available on the safety performance of the engineering control for the employer's procedures, and that the employer is actively determining by means of objective product evaluation criteria whether use of the engineering control will reduce the risk of exposure incidents occurring in the employer's workplace.

### **Prohibited Practices**

- Shearing or breaking of contaminated needles and other contaminated sharps is prohibited.
- Contaminated sharps shall not be bent, recapped, or removed from devices.

- EXCEPTION: Contaminated sharps may be bent, recapped or removed from devices if the procedure is performed using a mechanical device or a one-handed technique, and the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.
- Sharps that are contaminated with blood or OPIM shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.
- Disposable sharps shall not be reused.
- Broken Glassware. Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.
- The contents of sharps containers shall not be accessed unless properly reprocessed or decontaminated.
- Sharps containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of sharps injury.
- Mouth pipetting/suctioning of blood or OPIM is prohibited.
- Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or OPIM are present.

### **Handling Contaminated Sharps**

- All procedures involving the use of sharps in connection with patient care, such as withdrawing body fluids, accessing a vein or artery, or administering vaccines, medications or fluids, shall be performed using effective patient-handling techniques and other methods designed to minimize the risk of a sharps injury.
- Immediately or as soon as possible after use, contaminated sharps shall be placed in containers meeting the requirements listed in 3. below.
- At all times during the use of sharps, containers for contaminated sharps shall be:
  - Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found;
  - Maintained upright throughout use, where feasible; and
  - Replaced as necessary to avoid overfilling.

### **Sharps Containers for Contaminated Sharps**

- All sharps containers for contaminated sharps shall be:
  - Rigid;
  - Puncture resistant;
  - Leakproof on the sides and bottom;
  - Portable, if portability is necessary to ensure easy access by the user; and
  - Labeled in accordance with requirements listed below. (See Hazard Communication.)



- If discarded sharps are not to be reused, the sharps container shall also be closeable and sealable so that when sealed, the container is leak resistant and incapable of being reopened without great difficulty.

### **Regulated Waste**

- General – Handling, storage, treatment and disposal of all regulated waste shall be in accordance with Health and Safety Code Chapter 6.1, §117600 through 118360, and other applicable regulations of the United States, the State, and political subdivisions of the State.
- Disposal of Sharps Containers - When any container of contaminated sharps is moved from the area of use for the purpose of disposal, the container shall be:
  - Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping; and
  - Placed in a secondary container if leakage is possible. The second container shall be:
    - Closable;
    - Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and
  - The second container shall be:
    - Closable;
    - Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and
    - Labeled according to requirements listed below. (See Hazard Communication.)
- Disposal of Other Regulated Waste. Regulated waste not consisting of sharps shall be disposed of in containers which are:
  - Closable;
  - Constructed to contain all contents;
  - Labeled and color-coded in accordance with requirements listed below. (See Hazard Communication.); and
  - Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
- If outside contamination of a container of regulated waste occurs, it shall be placed in a second container. The second container shall be:
  - Closable;
  - Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;
  - Labeled and color-coded in accordance with requirements listed below. (See Hazard Communication.); and
  - Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

### **Handling Specimens of Blood or OPIM**

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

- The container for storage, transport, or shipping shall be labeled or color-coded according to requirements listed below. (See Hazard Communication.), and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with requirements listed below (See Hazard Communication) when such specimens/containers leave the facility.
- If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during collection, handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.
- If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

### **Servicing or Shipping Contaminated Equipment**

Equipment which may become contaminated with blood or OPIM shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

- A readily observable label in accordance with requirements listed below. (See Hazard Communication.) shall be attached to the equipment stating which portions remain contaminated.
- Information concerning all remaining contamination shall be conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

### **Cleaning and Decontamination of the Worksite**

- General Requirements
  - Department supervisors shall ensure that the worksite is maintained in a clean and sanitary condition.
  - Department Supervisors shall determine and implement an appropriate written schedule for cleaning and decontamination of the worksite.
  - The method of cleaning or decontamination used shall be effective and shall be appropriate for the:
    - Location within the facility;

- Type of surface or equipment to be treated;
    - Type of soil or contamination present; and
    - Tasks or procedures being performed in the area.
  - All equipment and environmental and work surfaces shall be cleaned and decontaminated after contact with blood or OPIM no later than at the end of the shift. Cleaning and decontamination of equipment and work surfaces is required more often as specified below.
- Specific Requirements.
  - Contaminated Work Surfaces. Contaminated work surfaces shall be cleaned and decontaminated immediately or as soon as feasible when:
    - Surfaces become overtly contaminated;
    - There is a spill of blood or OPIM;
    - Procedures are completed; and
    - At the end of the work shift if the surface may have become contaminated since the last cleaning.
  - Receptacles. All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or OPIM shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.
  - Protective Coverings. Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the work shift if they may have become contaminated during the shift.

### **Hygiene**

- Cal Poly Humboldt will provide handwashing facilities which are readily accessible to employees.
- When provision of handwashing facilities is not feasible, the Cal Poly Humboldt will provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.
- Cal Poly Humboldt will ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.
- Cal Poly Humboldt will ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or OPIM.

### **Laundry and Contaminated Clothing**

- Contaminated laundry shall be handled as little as possible with a minimum of agitation.
  - Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.
  - Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with requirements listed below. (See Hazard Communication.). When a facility utilizes Standard Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Standard Precautions.
  - Whenever contaminated laundry is wet and presents a reasonable likelihood of soaking through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.
- Cal Poly Humboldt will ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.
- When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with requirements listed below. (See Hazard Communication.)

### **Personal Protective Equipment**

- Provision. Where occupational exposure remains after institution of engineering and work practice controls, Cal Poly Humboldt will provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or other eye protection, masks mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.

Personal protective equipment will be considered "appropriate" only if it does not permit blood or OPIM to pass through to or reach the employee's work clothes, street clothes, undergarments, 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.

- Use. Cal Poly Humboldt will ensure that employees use appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented to determine whether changes can be instituted to

prevent such occurrences in the future. Cal Poly Humboldt will encourage employees to report all such instances without fear of reprisal in accordance with California Code of Regulations Title 8, §3203.

- Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.
- Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment at no cost to the employee.
- Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.
- Removal.
  - If a garment(s) is penetrated by blood or OPIM, the garment(s) shall be removed immediately or as soon as feasible.
  - All personal protective equipment shall be removed prior to leaving the work area.
  - When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination and/or disposal.
- Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, OPIM, mucous membranes, and non-intact skin; when performing vascular access procedures and when handling or contact with contaminated items or surfaces. These requirements are in addition to the provisions of California Code of Regulations Title 8, §3384.
  - Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
  - Disposable (single use) gloves shall not be washed or decontaminated for re-use.
  - Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
- Masks, Eye Protection, Face Shields, and Respirators.
  - Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or OPIM may be

generated and eye, nose, or mouth contamination can be reasonably anticipated. These requirements are in addition to the provisions of California Code of Regulations Title 8, §3382.

- Where respiratory protection is used, the provisions of California Code of Regulations Title 8, § 5144 and 5147 are required as applicable.
  - NOTE: Surgical masks are not respirators.
- Gowns, Aprons, and Other Protective Body Clothing.
  - Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated. These requirements are in addition to the provisions of California Code of Regulations Title 8, §3383.
  - Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery). These requirements are in addition to the provisions of California Code of Regulations Title 8, §3383.

## **Hepatitis B Vaccination and Bloodborne Pathogen Post-Exposure Evaluation and Follow-up**

### **Hepatitis B Vaccination**

- Cal Poly Humboldt makes available to all employees, with occupational exposure as defined in Title 8 of the California Code of Regulations, §51193(b), the hepatitis B vaccine and vaccination series at no cost to the employee.
- Employees who wish to receive the hepatitis B vaccination series must submit a request to their immediate supervisor.
- Supervisors shall, before assigning an employee to duties that present occupational exposure to bloodborne pathogens, ensure that the employee begins the vaccination series prior to commencing said duties.
- Employees who have occupational exposure and do not wish to receive the hepatitis B vaccination series must read and sign the hepatitis B vaccination declination waiver (See Appendix A).
- If an employee has occupational exposure to bloodborne pathogens and declines the hepatitis B vaccination series, Cal Poly Humboldt reserves the right to reassign that employee to duties that do not present occupational exposure until the employee has received vaccination against hepatitis B.
- Cal Poly Humboldt does not maintain a prescreening program as a prerequisite for receiving hepatitis B vaccination.
- If an employee initially declines hepatitis B vaccination but at a later date, while still covered under the standard, decides to accept the vaccination, Cal Poly Humboldt will make available the hepatitis B vaccination at that time.
- If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) will be made available in accordance with the provisions of this plan.

## **EMERGENCIES INVOLVING BLOOD OR OPIM**

**If someone else is bleeding:**

- ✓ Put on gloves as quickly as possible.
- ✓ If you are unable to glove first, begin first aid to stop the bleeding while avoiding contamination as much as possible.
- ✓ If the victim is alert, have them apply pressure to the bandage.
- ✓ Notify emergency response personnel ASAP. **EXT 5555 OR 911.**
- ✓ After the victim has been stabilized by emergency response personnel, notify your immediate supervisor and follow her/his instructions.
- ✓ **DO NOT LEAVE THE SCENE UNTIL YOU HAVE BEEN CLEARED BY YOUR SUPERVISOR!**
- ✓ Wash any contaminated areas on your body with warm water and soap. ✓ Seek medical evaluation as soon as possible.
- ✓ Follow appropriate SOP

**If you are bleeding:**

- ✓ Call for help immediately. **EXTENSION 5555 OR 911**
- ✓ If you are able, apply a pressure bandage to the wound according to your first aid training.
- ✓ If you are able, try not to contaminate anyone with your blood.
- ✓ Follow the instructions of emergency response personnel and/or your supervisor.

**Post-exposure Evaluation and Follow-up.**

Following a report of an exposure incident, Cal Poly Humboldt will make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

- Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;
- Identification and documentation of the source individual, unless the investigating administrator can establish that identification is infeasible or prohibited by state or local law;
  - The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV, HCV and HIV infectivity. If consent is not obtained, Cal Poly Humboldt will establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, will be tested and the results documented.
  - When the source individual is already known to be infected with HBV, HCV or HIV, testing for the source individual's known HBV, HCV or HIV status need not be repeated.
  - Results of the source individual's testing will be made available to the exposed employee, and the employee will be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

- Cal Poly Humboldt will provide for collection and testing of the employee's blood for HBV, HCV and HIV serological status;
  - The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.
  - If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.
  - Additional collection and testing shall be made available as recommended by the U.S. Public Health Service.
- Cal Poly Humboldt will provide for post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;
- Cal Poly Humboldt will provide for counseling and evaluation of reported illnesses.

*Information Provided to the Healthcare Professional.*

- Cal Poly Humboldt shall ensure that the healthcare professional responsible for the employee's hepatitis B vaccination is provided a copy of this regulation.
- Cal Poly Humboldt shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:
  - A copy of this regulation;
  - A description of the exposed employee's duties as they relate to the exposure incident;
  - Documentation of the route(s) of exposure and circumstances under which exposure occurred, as required by subsection (f)(3)(A);
  - Results of the source individual's blood testing, if available; and
  - All medical records relevant to the appropriate treatment of the employee including vaccination status which are Cal Poly Humboldt's responsibility to maintain, as required in subsection (h)(1)(B)2.

*Healthcare Professional's Written Opinion.*

Cal Poly Humboldt shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

- The healthcare professional's written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.
- The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:



- That the employee has been informed of the results of the evaluation; and
- That the employee has been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.
- All other findings or diagnoses shall remain confidential and shall not be included in the written report.

Medical Recordkeeping.

Medical records required by this standard shall be maintained in accordance with subsection (h)(1) of California Code of Regulations Title 8, §5193.

**Communication of Hazards to Employees.**

Labels and Signs.

- Labels.
  - Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or OPIM; and other containers used to store, transport or ship blood or OPIM, except as provided in e, f, & g below.
    - NOTE: Other labeling provisions, such as Health and Safety Code §§118275 through 118320, may be applicable.
  - Labels required by this Section shall include either the following legend as required by California Code of Regulations Title 8, §3341:



**BIOHAZARD**

or, in the case of regulated waste, the legend:

**BIOHAZARDOUS WASTE or SHARPS WASTE**

as described in Health and Safety Code §§118275 through 118320. c. These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

- Required labels shall either be an integral part of the container or shall be affixed as close as feasible to the container by string, wire, adhesive,

or other method that prevents their loss or unintentional removal.

- Red bags or red containers may be substituted for labels except for sharp containers or regulated waste red bags. Bags used to contain regulated waste shall be color-coded red and shall be labeled in accordance with b above. Labels on red bags or red containers do not need to be color-coded in accordance with c. above.
- Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements.
- Individual containers of blood or OPIM that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.
- Labels required for contaminated equipment shall be in accordance with this subsection and shall also state which portions of the equipment remain contaminated.
- Regulated waste that has been decontaminated need not be labeled or color-coded.

- Signs.
  - Cal Poly Humboldt shall post signs at the entrance to work areas specified in subsection (e), HIV, HBV and HCV Research Laboratory and Production Facilities, which shall bear the following legend:



**BIOHAZARD**

(Name of the Infectious Agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person.)

- These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color, and meet the requirements of §3340.

Information and Training.

- Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.
- Training shall be provided as follows:
  - At the time of initial assignment to tasks where occupational exposure may take place; and
  - At least annually thereafter.
- For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.
- Annual training for all employees shall be provided within one year of their previous training.
- Employers shall provide additional training when changes, such as introduction of new engineering, administrative or work practice controls, modification of tasks or procedures or institution of new tasks or procedures, affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.
- Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.
- The training program shall contain at a minimum the following elements:

- Copy and Explanation of Standard. An accessible copy of the regulatory text of this standard and an explanation of its contents;
  - Epidemiology and Symptoms. A general explanation of the epidemiology and symptoms of bloodborne diseases;
  - Modes of Transmission. An explanation of the modes of transmission of bloodborne pathogens;
  - Employer's Exposure Control Plan. An explanation of Cal Poly Humboldt's exposure control plan and the means by which the employee can obtain a copy;
  - Risk Identification. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM;
  - Methods of Compliance. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, administrative or work practice controls and personal protective equipment;
  - Decontamination and Disposal. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
  - Personal Protective Equipment. An explanation of the basis for selection of personal protective equipment;
  - Hepatitis B Vaccination. 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;
  - Emergency. Information on the appropriate actions to take and
    - persons to contact in an emergency involving blood or OPIM;
  - Exposure Incident. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident, the medical follow-up that will be made available and the procedure for recording the incident on the Sharps Injury Log;
    - Post-Exposure Evaluation and Follow-Up. Information on the postexposure evaluation and follow-up that Cal Poly Humboldt is required to provide for the employee following an exposure incident;
  - Signs and Labels. An explanation of the signs and labels and/or color coding required by subsection (g)(1); and
  - Interactive Questions and Answers. An opportunity for interactive questions and answers with the person conducting the training session.
    - NOTE: Additional training is required for employees of HIV, HBV and HCV Research Laboratories and Production Facilities, as described in subsection (e)(5).
- The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

## Recordkeeping

### Medical Records.

- Cal Poly Humboldt shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with California Code of Regulations Title 8, §3204.
- This record shall include:
  - The name and social security number of the employee;
  - A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by subsection (f)(2);
  - A copy of all results of examinations, medical testing, and follow-up procedures as required by subsection (f)(3);
  - Cal Poly Humboldt's copy of the healthcare professional's written opinion as required by subsection (f)(5); and
  - A copy of the information provided to the healthcare professional as required by subsections (f)(4)(B)2., 3. and 4.
- Confidentiality. Cal Poly Humboldt shall ensure that employee medical records required by subsection (h)(1) are:
  - Kept confidential; and
  - Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.
- Cal Poly Humboldt shall maintain the records required by subsection (h) for at least the duration of employment plus 30 years in accordance with §3204.

### Training Records.

- Training records shall include the following information:
  - The dates of the training sessions;
  - The contents or a summary of the training sessions;
  - The names and qualifications of persons conducting the training; and
  - The names and job titles of all persons attending the training sessions.
- Training records shall be maintained for 3 years from the date on which the training occurred.

### Sharps Injury Log.

- The Sharps Injury Log shall be maintained 5 years from the date the exposure incident occurred.





## Appendix A

### Bloodborne Pathogen - Immunization Documentation

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Employee Name: \_\_\_\_\_ University ID # \_\_\_\_\_

Department/Unit: \_\_\_\_\_ Job Title \_\_\_\_\_

Date: \_\_\_\_\_ Signature \_\_\_\_\_

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#### Option 1

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- I have been previously vaccinated against Hepatitis B.

To the best of my knowledge, that vaccination dates are:

Vaccination 1 : \_\_\_\_\_

Vaccination 2: \_\_\_\_\_

Vaccination 3: \_\_\_\_\_

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#### Option II

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- Hepatitis B Declination

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

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#### Option III

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I wish to be immunized against Hepatitis B

- Once you have completed the training requirements, contact the Mad River Occupational Health office at (707) 825-4907 to schedule an appointment. Note that the financial responsibility for Hepatitis B immunization and any related laboratory testing rests on the Department or Unit where the employee works.
-



## Appendix B - Definitions.

**"Blood"** means human blood, human blood components, and products made from human blood.

**"Bloodborne Pathogens"** means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV).

**"Chief"** means the Chief of the Division of Occupational Safety and Health of the California Department of Industrial Relations or designated representative. **"Clinical Laboratory"** means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

**"Contaminated"** means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on a surface or in or on an item.

**"Contaminated Laundry"** means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

**"Decontamination"** means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal. Decontamination includes procedures regulated by Health and Safety Code § 118275.

**"Engineering Controls"** means controls (e.g., sharps disposal containers, needleless systems and sharps with engineered sharps injury protection) that isolate or remove the bloodborne pathogens hazard from the workplace. **"Engineered Sharps Injury Protection"** means either:

- (1) A physical attribute built into a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, which effectively reduces the risk of an exposure incident by a mechanism such as barrier creation, blunting, encapsulation, withdrawal or other effective mechanisms; or
- (2) A physical attribute built into any other type of needle device, or into a non-needle sharp, which effectively reduces the risk of an exposure incident. **"Exposure Incident"** means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

**"Handwashing Facilities"** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

**"HBV"** means hepatitis B virus.

**"HCV"** means hepatitis C virus.

**"HIV"** means human immunodeficiency virus.

**"Licensed Healthcare Professional"** is a person whose licensed scope of practice includes an activity which this section requires to be performed by a licensed healthcare professional.

**"Needle" or "Needle Device"** means a needle of any type, including, but not limited to, solid and hollow-bore needles.

**"Needleless system"** means a device that does not utilize needles for:

(1) The withdrawal of body fluids after initial venous or arterial access is established;

(2) The administration of medication or fluids; and

(3) Any other procedure involving the potential for an exposure incident. **"NIOSH"** means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

**"Occupational Exposure"** means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

**"One-Hand Technique"** means a procedure wherein the needle of a reusable syringe is capped in a sterile manner during use. The technique employed shall require the use of only the hand holding the syringe so that the free hand is not exposed to the uncapped needle.

**"OPIM"** means other potentially infectious materials.

**"Other Potentially Infectious Materials"** means:

- (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any other body fluid that is visibly contaminated with blood such as saliva or vomitus, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids such as emergency response;
- (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- (3) Any of the following, if known or reasonably likely to contain or be infected with HIV, HBV, or HCV:
  - a. Cell, tissue, or organ cultures from humans or experimental animals;
  - b. Blood, organs, or other tissues from experimental animals; or
  - c. Culture medium or other solutions.

**"Parenteral"** means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**"Personal Protective Equipment"** is specialized clothing or equipment worn or used by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

**"Production Facility"** means a facility engaged in industrial-scale, large-volume or high concentration production of HIV, HBV or HCV. **"Regulated Waste"** means any of the following: (1) Liquid or semi-liquid blood or OPIM; (2) Contaminated items that:

- a. Contain liquid or semi-liquid blood, or are caked with dried blood or OPIM; and
  - b. Are capable of releasing these materials when handled or compressed.
- (3) Contaminated sharps.
- (4) Pathological and microbiological wastes containing blood or OPIM. NOTE: Regulated Waste includes "medical waste" regulated by Health and Safety Code§ 117600 through 118360.

**"Research Laboratory"** means a laboratory producing or using research-laboratory-scale amounts of HIV, HBV or HCV. Research laboratories may produce high concentrations of HIV, HBV or HCV but not in the volume found in production facilities.

**"Sharp"** means any object used or encountered in the industries covered by subsection (a) that can be reasonably anticipated to penetrate the skin or any other part of the body, and to result in an exposure incident, including, but not limited to, needle devices, scalpels, lancets, broken glass, broken capillary tubes, exposed ends of dental wires and dental knives, drills and burs.

**"Sharps Injury"** means any injury caused by a sharp, including, but not limited to, cuts, abrasions, or needlesticks.

**"Sharps Injury Log"** means a written or electronic record satisfying the requirements of subsection (c)(2).

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

**"Universal Precautions"** is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, HCV, and other bloodborne pathogens. **"Work Practice Controls"** means controls that reduce the likelihood of exposure by defining the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique and use of patient-handling techniques).

## Appendix C

### Accidental Exposure Response Plan

All exposures to blood/body fluids should be assessed on a case-by-case basis. Outside of the healthcare setting, the level of risk by accidental exposure to blood for contracting HIV, HBV or HCV is significantly less. Post exposure prophylaxis will usually only be considered in the event of a skin puncture or other high risk exposure, such as to the mucous membranes or non-intact skin, and where potential for infection outweighs the risks inherent to the treatment. If a puncture should occur, let the wound bleed for a moment, then cleanse thoroughly with water or saline solution, disinfect with soap and then 70% alcohol solution. Call UPD at 826-5555 or go directly to an Emergency Room, such as Mad River Hospital. Follow-up notification must be made to the Biosafety Officer at 826-3302 and a sharps injury log will need to be filled out.

If the source of blood is known, he/she should be asked for permission to sample for HCV and HIV. If the subject refuses, then it will be assumed he/she is a carrier. If post exposure prophylaxis is indicated, it should begin as soon as possible, preferably within two hours of exposure. Delays in presenting to an emergency department should be avoided.

In the event of direct skin contact with blood, but where no puncture has occurred, the condition of the skin and location of the exposure will determine the response measures. Mucous membranes exposed to blood pose a greater risk of pass through of infectious agents, as does non-intact skin i.e. skin with a wound <3 days old or conditions such as dermatitis abrasions, scratches etc... If this should occur, rinse immediately and thoroughly with water or a saline solution (not alcohol) and immediately go to the Student Health Center for assessment and notify the Biosafety Officer.

For other intact skin exposures, such as hands or forearms, the same should occur: Quickly wash the area with soap and water. Re-assess the integrity of the skin and if still intact, disinfect with alcohol as a secondary precaution. Even in the event of intact skin exposure, notify the biosafety officer at 826-3302 for confirmation of no further action required. Each time, there is an exposure the source of the blood should be questioned for any known infections. It will be up to the discretion of the biosafety officer and the exposed individual to assess the risk and outline appropriate counter measures for all non-percutaneous exposures.

Phone Numbers:

EH&S **826-3302**

Student Health **826-3146**

UPD **826-5555** or **911**

Mad River Community Hospital **822-3621**

## Appendix D

### Accidental Exposure Response Plan

#### Blood Spill Clean-up

All exposures to blood/body fluids should be assessed on a case-by-case basis. Outside of the healthcare setting, the level of risk by accidental exposure to blood for contracting HIV, HBV or HCV is significantly less. Post exposure prophylaxis will usually only be considered in the event of a skin puncture or other high risk exposure, such as to the mucous membranes or non-intact skin, and where potential for infection outweighs the risks inherent to the treatment. If a puncture should occur, let the wound bleed for a moment, then cleanse thoroughly with water or saline solution, disinfect with soap and then 70% alcohol solution. Call UPD at 826-5555 or go directly to an Emergency Room, such as Mad River Hospital. Follow-up notification must be made to the Biosafety Officer at 826-3302 and a sharps injury log will need to be filled out.

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In the event of direct skin contact with blood, but where no puncture has occurred, the condition of the skin and location of the exposure will determine the response measures. Mucous membranes exposed to blood pose a greater risk of pass through of infectious agents, as does non-intact skin i.e. skin with a wound <3 days old or conditions such as dermatitis abrasions, scratches etc... If this should occur, rinse immediately and thoroughly with water or a saline solution (not alcohol) and immediately go to the Student Health Center for assessment and notify the Biosafety Officer.

For other intact skin exposures, such as hands or forearms, the same should occur: Quickly wash the area with soap and water. Re-assess the integrity of the skin and if still intact, disinfect with alcohol as a secondary precaution. Even in the event of intact skin exposure, notify the biosafety officer at 826-3302 for confirmation of no further action required. Each time, there is an exposure the source of the blood should be questioned for any known infections. It will be up to the discretion of the biosafety officer and the exposed individual to assess the risk and outline appropriate counter measures for all non-percutaneous exposures.

Phone Numbers:

EH&S **826-3302**

Student Health **826-3146**

UPD **826-5555** or **911**

Mad River Community Hospital **822-3621**

# CAL POLY HUMBOLDT

## **Standard Operating Procedure: EHS002-150612**

### **Title: Blood Spill Clean-up Procedure**

These procedures are to be followed for a small spill of blood or OPIM (other potentially infectious material). For larger spills due to mass casualty or other incident resulting in greater than approximately 8 oz. of fluid, which will require additional spill containment and PPE (Personal Protective Equipment) call EH&S for Haz Mat assistance at **707-826-3302 during work hours or x5555 after hours to dispatch EH&S.**

OPIM is the following human body fluids: blood, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures. Feces and vomit are not considered OPIM unless visibly contaminated with blood.

You have the option of receiving the Hepatitis B vaccination series at no cost *if* your job entails that you routinely or may potentially cleanup blood or OPIM. There is no vaccination currently available for the HIV human immunodeficiency virus or the Hepatitis C virus. Please contact your supervisor for details or if you have questions.

### **Response Procedures**

- Gently place absorbent material (i.e. paper towels) over the spill.
  - If using a powdered absorbent, allow it to fully absorb and use a paper towel to compress the absorbent to ensure no liquid remains. Then cover areas with paper towels as indicated.
- Cover with appropriate disinfectant (i.e. freshly prepared 10% bleach). Pour disinfectant slowly to ensure no aerosols are generated.
  - Allow disinfectant to soak area for 20 minutes.
- Using tongs remove contaminated sharps (i.e., broken glass) from the spilled material and place in a rigid, puncture and leak proof container, if necessary. (Do not pick up broken glass or other sharps using your hands).
- Carefully place the absorbent material into a biohazard bag. Secondly, contain biohazard bag to ensure any leaks are contained.
- Clean spill area again with disinfectant and add materials to biohazard bag.
- Disinfect with bleach solution all potentially contaminated and re-usable tools or protective equipment used in the clean-up, including any booms, dustpans, forceps etc...
- Carefully remove gloves and any other contaminated PPE. Any PPE with visible blood contamination should go into waste bag, anything else can go into regular trash.
- Wash hands and other exposed body parts thoroughly with soap and hot water
  - ✓ If blood or OPIM has spilled onto you, it should be thoroughly washed off as soon as possible. If the material has spilled on your clothing and soaked through so there is skin contact, clothes must be removed.

Following removal, wash those areas where exposure is evident. (If during the course of clean up, any broken/cracked skin or mucous membranes come into contact with blood, you must follow the exposure response plan).

- Keep biohazard container in a secure area and contact EH&S for proper disposal.

**Recommended Spill Kit Contents:**

- This SOP laminated
- 10% bleach solution (must use concentrated bleach and water to make fresh mixture each time). Or use or virex, 3M Tb Quat or other bloodborne compliant cleaner  
If necessary-container(spray bottle) for mixing bleach solution
- Nitrile or Latex Gloves
- Goggles or Safety glasses
- Clear plastic bags and biohazard labels, or red biohazard bags (available from EH&S)
- Biohazard labels
- Rigid Leak-proof containers for sharps
- Brush & dustpan, or tongs or forceps for picking up sharps
- Disinfectant wipes
- Optional: Dry absorbent such as spill king, kitty litter or diatomaceous earth

**References:**

8 CCR 5193

Cal Poly Humboldt Accidental Exposure Response Plan-Blood  
Spill Clean-up Risk Management and Safety Services Sharps  
Injury Log

# Cal Poly Humboldt

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Risk Management and Safety Services

## **Standard Operating Procedure: EHS011-17021545**

### **Title: Encountering Sharps**

#### **POLICY STATEMENT**

Occasionally a potentially contaminated hypodermic needle or "sharp" may be found during the course of an employee's regular duties. A needlestick or a cut from a contaminated sharp can result in a worker being infected with human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and other Bloodborne Pathogens. Careful handling of contaminated sharps can prevent injury and reduce the risk of infection.

If you have been assigned by your supervisor to take action when a sharp is encountered, have received Bloodborne Pathogens training and have been provided the appropriate container, you must follow this procedure.

#### **PROCEDURE**

1. Put on disposable Latex or Nitrile gloves. Closed toed shoes must also be worn in case you accidentally drop the sharp. Keep in mind, the gloves protect against fluid contamination, but will not protect against pokes or cuts.
2. Get your single use sharps container from your cart, truck or custodial closet. Do not bring the sharp to your container.
3. Open the lid and put the container on a stable surface next to the needle, such as the ground. Do not hold the container in your hand when placing the needle inside.
4. Use tongs or pliers to pick up the needle by the plastic end (not the sharp end) with the needle pointing away from your body. If you don't have tongs or pliers, you must make sure to pick up the syringe from the non-sharp end using a gloved hand. Never touch a sharp without one or the other, ideally both.
5. Place the needle, sharp end first, into your container. Do not force the needle into the container.
6. Close and lock the container and bring it to the central sharps container. Place the entire single use container into the larger container, do not re-open the container.
7. Notify your supervisor and EH&S of the date, time and location the sharp was found.



In the event you get stuck with an encountered sharp, either while attempting proper disposal or you came into contact with it prior to identifying its presence, refer to the "Accidental Exposure Response Plan" which can be found at:  
<http://www2.humboldt.edu/risksafety/bloodborne-path>

#### **REFERENCES**

- 8 CCR 5193-Bloodborne Pathogens
- Sharps Injury Log
- Bloodborne Pathogens Control Plan

## Appendix D

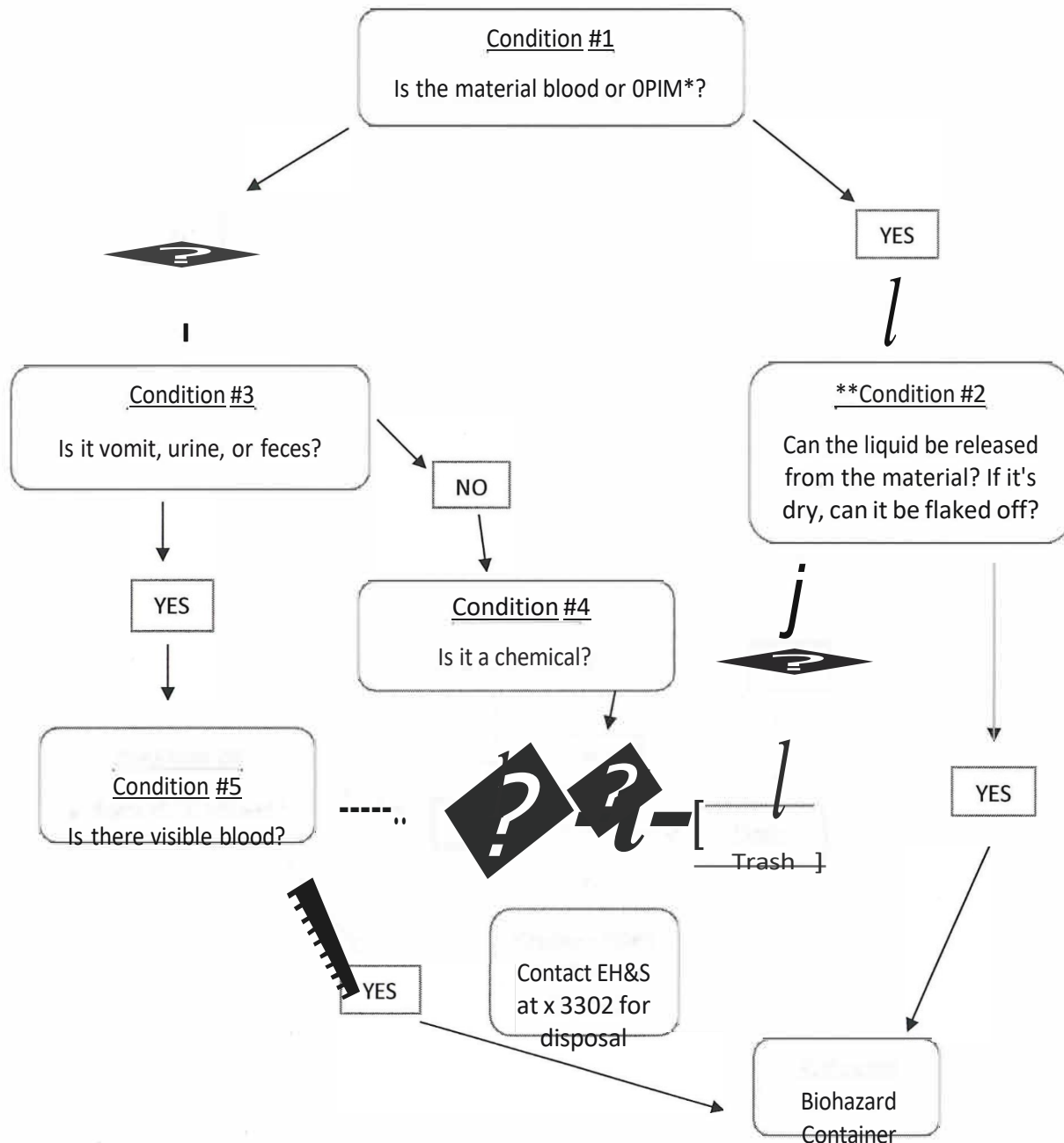
### Guidelines for Blood Clean up Outside for Custodial, Trades and First Responders

Residual blood from injured persons left on publicly accessed impervious surfaces (concrete, asphalt etc...) poses a potential threat to health and safety and requires clean-up by appropriately trained personnel, though it is important to protect storm water quality during clean-up.

Use the following guidelines to direct your response actions:

- If there are landscaping or other pervious areas close by like grass or dirt, apply a chemical disinfectant.
  - o Allow it to sit for approximately 10 minutes and then hose the material into the pervious area using as little water as possible to remove the visible blood.
  - o Exercise caution not to allow the wash water to enter any surrounding storm drain inlets
  
- If there are no pervious surfaces nearby- do not use a chemical disinfectant
  - o Hose the blood directly into the nearest storm drain inlet using as little water as possible to remove the visible blood.

## Is This Regulated Waste?



\*OPIM: "other potentially infectious material", such as vaginal secretions, spinal fluid, semen, or synovial fluid. **\*\*Note:** Gloves, towels, and other clean up material, unless significantly saturated so that material can be released from the substrate, can go into the trash. Used band aids, gauze, cotton balls etc... are also not regulated unless condition #2 applies. Sharps must always go into a rigid, leak proof biohazard container.

# Appendix E

## BLOODBORNE PATHOGEN RISK ASSESSMENT

### Part I

Employee Name: \_\_\_\_\_ University ID# \_\_\_\_\_

Department/Unit: \_\_\_\_\_ Job Title - - - - -

**The above employee is not at risk for exposure to blood or OPIM\*** (skip to Part III)

\*Other Potentially Infectious Materials, which includes: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; Any unfixed tissue or organ from a human (living or dead); and HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

### Part II

In accordance with the Cal/OSHA Title 8, § 5193. Bloodborne Pathogens, the information provided below serves as documentation that employee listed above conducts tasks that put them at occupational risk of exposure to bloodborne pathogens. Please check each box that reflects job duties conducted by the aforementioned employee and file with your Exposure Control Plan.

Mark all that apply:

- 1. Works with human blood or blood products (i.e., serum, platelets, cells).
- 2. Handles containers holding human blood or blood products.
- 3. Cleans spills involving significant amounts of human blood, blood products or OPIM (more than a few drops).
- 4. Handles unfixed fresh or frozen human tissues or organs (fixed refers to preservation in solutions such as formaldehyde or alcohol).
- 5. Handles sharp instruments used for any of the work listed on this form.
- 6. Works in patient care with potential for contact with blood or OPIM.
- 7. Works in the Student Health Services Building, Labs?, or athletic training rooms.
- 8. Collects, disposes or otherwise handles biohazard waste or sharps containers generated from work involving human blood or OPIM.
- 9. Are required to perform first aid as part of their job responsibilities (i.e., Police, Paramedics).
- 10. Other (specify): \_\_\_\_\_

**Departmental Responsibility** (At-risk employees are required to receive the following):

1. Initial and annual refresher training on bloodborne pathogens. Contact EHS at 826-3302 for assistance on training.
2. An offer to receive Hepatitis B vaccination or sign a waiver declining vaccination. After training, vaccinations may be scheduled through the Mad River Occupational Health office at 825-4907.

### Part III

Supervisor's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

# Appendix F

## RISK MANAGEMENT AND SAFETY SERVICES

### SHARPS INJURY LOG

**Please complete a log for each employee exposure incident involving a sharp within 14 days of the date the incident is reported.**

Complete this form in conjunction with the Supervisor Injury/Illness Report for injuries

Check the box related to occupational exposures. Type or print clearly.

Select the box that corresponds to the most appropriate answer.			
Department:	Phone:	Date Completed:	
Supervisor:	Supervisor Signature:	Date Signed:	

Date of Injury: (Month-Day-Year)	Time of Injury	Gender	Age
	am/ m	<input type="checkbox"/> Male <input type="checkbox"/> Female	

Description of the exposure incident involving sharps:

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<p>Job Classification of Exposed Employee: (Check All That Apply)</p> <p><input type="checkbox"/> MD    <input type="checkbox"/> PA    <input type="checkbox"/> NP    <input type="checkbox"/> RN</p> <p><input checked="" type="checkbox"/> Medical Assistant    <input checked="" type="checkbox"/> Phlebotomist/Med Tech</p> <p><input checked="" type="checkbox"/> Custodial    <input type="checkbox"/> Plumber</p> <p><input checked="" type="checkbox"/> Grounds Worker    <input checked="" type="checkbox"/> Police Officer</p> <p><input checked="" type="checkbox"/> Researcher/Lab Tech    <input checked="" type="checkbox"/> Animal Care Worker</p> <p><input type="checkbox"/> Coach/Trainer</p> <p><input type="checkbox"/> Other _____</p>	<p>Location/Work Area Where Exposure Occurred: (Check All That Apply)</p> <p><input checked="" type="checkbox"/> Exam Room    <input checked="" type="checkbox"/> Procedure Room</p> <p><input type="checkbox"/> Urgent Care    <input checked="" type="checkbox"/> Residential Site</p> <p><input type="checkbox"/> Athletic Field/Gym    <input checked="" type="checkbox"/> Recreation/Fit Center</p> <p><input checked="" type="checkbox"/> Laboratory/Classroom    <input checked="" type="checkbox"/> Animal Facility</p> <p><input checked="" type="checkbox"/> Service/Utility Area</p> <p><input type="checkbox"/> Other _____</p>
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<p>Procedure Being Performed at Time of Incident: (Check All That Apply)</p> <p><input checked="" type="checkbox"/> Draw venous blood    <input checked="" type="checkbox"/> Heparin/saline flush</p> <p><input checked="" type="checkbox"/> Draw arterial blood    <input checked="" type="checkbox"/> Cutting</p> <p><input checked="" type="checkbox"/> Injection through skin    <input checked="" type="checkbox"/> Suturing</p> <p><input type="checkbox"/> Start IV/set up heparin lock    <input checked="" type="checkbox"/> Handling Medical Waste</p> <p><input type="checkbox"/> Provide First Aid/CPR</p> <p><input type="checkbox"/> Research procedure, explain: _____</p> <p><input type="checkbox"/> Other _____</p>	<p>Exposure Incident Occurred: (Check All That Apply)</p> <p><input checked="" type="checkbox"/> During use of sharp    <input checked="" type="checkbox"/> Disassembling</p> <p><input checked="" type="checkbox"/> Between steps of a multistep procedure</p> <p><input checked="" type="checkbox"/> After use and before disposal of sharp</p> <p><input checked="" type="checkbox"/> While putting sharp into disposal container</p> <p><input checked="" type="checkbox"/> Sharp left in inappropriate place (table, bed, trash, etc.)</p> <p><input type="checkbox"/> Other _____</p>
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<p>Body Part: (Check All That Apply)</p> <p><input checked="" type="checkbox"/> Finger    <input checked="" type="checkbox"/> Face/Head</p> <p><input type="checkbox"/> Hand    <input checked="" type="checkbox"/> Torso</p> <p><input type="checkbox"/> Arm    <input type="checkbox"/> Leg</p> <p><input type="checkbox"/> Other _____</p>	<p>Identify sharp involved (if known):</p> <p>Type: _____</p> <p>Brand: — —</p> <p>Model: — —</p> <p>e.g. 18g needle/ABC Medical, "no stick" syringe</p>	<p>Did the device being used have engineered sharps injury protection?</p> <p>Was the protective mechanism activated?</p> <p>Did the exposure incident occur?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't know</p> <p><input type="checkbox"/> Yes, Fully <input type="checkbox"/> Yes, Partially</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Before <input checked="" type="checkbox"/> During <input type="checkbox"/> After Activation</p>
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<p><u>Exposed Employee Opinion:</u> If sharp had no engineered sharps injury protection, do you have an opinion that such a mechanism could have prevented the injury?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Explain: _____</p>	<p><u>Exposed Employee Opinion:</u> Do you have an opinion that any other engineering, administrative or work practice control could have prevented the injury?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Explain: _____</p>
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Did employee seek	Health Care Facility:	Health Care Personnel:	Phone:
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

Sharps Injury Log must be submitted to:  
 Environmental Health & Safety Coordinator, Cal Poly Humboldt  
 Harpst St. Arcata Ca, 95521 Student Business Services 316  
 Phone: (707)826-3302

## Appendix G

### 1 How LONG DO THESE VIRUSES LIVE OUTSIDE THE BODY?

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The CDC website says:

**Hepatitis B** virus can survive outside the body at least 7 days. During that time, the virus can still cause infection if it enters the body of a person who is not infected.

**HIV** does not survive long outside the human body (such as on surfaces), and it cannot reproduce outside a human host (so a matter of minutes or hours depending on conditions).

**The Hepatitis C** virus can survive outside the body at room temperature, on environmental surfaces, for up to 3 weeks

However, a site quoting the CDC says "According to the U.S. Centers for Disease Control and Prevention, **HCV** can survive on environmental surfaces at room temperature for at least 16 hours but no longer than four days."

- As reported in the June 15, 2010 edition of *The Journal of Infectious Diseases*, researchers from Germany confirmed that HCV survives longer in liquids than it does when dried on surfaces. They found that in a liquid environment, **HCV was detectable for up to five months at lower temperatures.**
- As published in a February 2010 edition of *Virology Journal*, Chinese researchers determined that HCV could survive in a liquid medium for **two days at 98°F (body temperature), 16 days at 77°F and at least six weeks at 40°F (average refrigerator temperature).**
- Presented in February 2010 at the 17th Conference on Retroviruses & Opportunistic Infections, American researchers found that under the right circumstances, HCV remained viable in a **syringe for up to 63 days.** Circumstances that increased HCV infectivity include syringes with detachable needles, lower temperature and larger volume syringes.

### 2 How LONG IS THE HEP B VACCINE GOOD FOR?

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CDC: Studies indicate that immunologic memory remains intact for at least 20 years among healthy vaccinated individuals who initiated hepatitis B vaccination >6 months of age. The vaccine confers long-term protection against clinical illness and chronic hepatitis B virus infection. Among vaccinated cohorts who initiated hepatitis B vaccination at birth, long-term follow-up studies are ongoing to determine the duration of vaccine-induced immunity.

Other websites vary from 10-23 years. It is also noted that blood test may NOT show significant antibodies, though immunity MAY still exist. Studies are still ongoing to determine if boosters are recommended, as it stands they seem to be only recommended for immunocompromised individuals.

### **3 WHY SHOULD BABY BOOMERS GET TESTED FOR HEP C?**

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While anyone can get Hepatitis C, more than 75% of adults infected are baby boomers, people born from 1945 through 1965. Most people with Hepatitis C don't know they are infected.

The reason that baby boomers have high rates of Hepatitis C is not completely understood. Most boomers are believed to have become infected in the 1970s and 1980s when rates of Hepatitis C were the highest. Since people with Hepatitis C can live for decades without symptoms, many baby boomers are unknowingly living with an infection they got many years ago.

Hepatitis C is primarily spread through contact with blood from an infected person. Many baby boomers could have gotten infected from contaminated blood and blood products before widespread screening of the blood supply in 1992 and universal precautions were adopted. Others may have become infected from injecting drugs, even if only once in the past. Still, many baby boomers do not know how or when they were infected.

### **4 WHY ARE FEMININE HYGIENE PRODUCTS NOT CONSIDERED A POTENTIAL MEANS OF EXPOSURE?**

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OSHA has stated that the presence of discarded feminine hygiene products in the workplace does not, under normal circumstances, trigger the BBP standard. The intended function of feminine hygiene products is to absorb and contain blood. The absorbent material of which they are composed would be expected to, under most circumstances, prevent the release of liquid or semi-liquid blood or the flaking off of dried blood.

However, OSHA expects products such as discarded sanitary napkins to be discarded into waste containers which are lined in such a way as to prevent contact with the contents. At the same time, the employer must determine if employees can come into contact with blood during the normal handling of such products from initial pick-up through disposal in the outgoing trash.

## **5 WHAT TYPE OF CLEANING AGENT IS REQUIRED FOR DISINFECTION OR EQUIPMENT AND SURFACES?**

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*OSHA's position is that EPA-registered tuberculocidal disinfectants, diluted bleach solutions and EPA-registered disinfectants that are labeled as effective against both HIV and HBV as well as Sterilants/High-Level Disinfectants cleared by the FDA, meet the requirement in the standard and are "appropriate" disinfectants to clean contaminated surfaces, provided that such surfaces have not become contaminated with agent(s) or volumes of or concentrations of agent(s) for which higher level disinfection is recommended.*

*The particular disinfectant used, as well as the frequency with which it is used, will depend upon the circumstances in which a given housekeeping task occurs (i.e., location within the facility, type of surface to be cleaned, type of soil present, and tasks and procedures being performed). The employer's written schedule for cleaning and decontamination should identify such specifics on a task-by-task basis.*

## **6 How SHOULD SHARPS BE HANDLED?**

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*Sharps containers shall be maintained upright throughout use, replaced routinely and not be allowed to overfill. When removing sharps containers from the area of use, the containers shall be:*

- *Closed immediately before removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;*
- *Placed in a secondary container if leakage is possible. The second container shall be:*
  - *Closable;*
  - *Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and*
  - *Labeled or color-coded according to paragraph (g)(1)(i) of the standard.*
- *Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.*

*Upon closure, duct tape may be used to secure the lid of a sharps container as long as the tape does not serve as the lid itself.*

*See SOP for what to do when sharps are located*



## **7 WHAT IS THE RISK FOR CONTRACTING OCCUPATIONAL BLOODBORNE ILLNESS?**

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The estimated risk of HIV infection from a sharps injury is about 0.3 percent (1 in 300). The CDC has reported 57 documented cases and 140 possible cases of HIV transmission to U.S. health care workers between 1981 and December 2006. Of the 57 documented cases, 48 were associated with percutaneous injury (puncture/cut injury). Most of these cases involved nurses and lab technicians.

National hepatitis surveillance data shows that approximately 400 health care workers became infected with HBV in 2001. This figure represented a 95% decline from the 17,000 new infections estimated in 1983. The decline was largely due to the widespread immunization of health care workers with hepatitis B vaccine and the use of universal precautions and other measures required by OSHA.

Although the prevalence of HCV infection among health care workers is similar to that in the general population (1% to 2%), health care workers have an increased occupational risk for HCV infection. According to the CDC, the average risk of infection after a needlestick or cut exposure to infected blood is approximately 1.8%. Although recent studies show an association between sharps injuries and HCV infection, the number of health care workers who have acquired HCV occupationally is unknown. However, of the total acute HCV infections that have occurred annually (ranging from 100,000 in 1991 to 36,000 in 1996), 2% to 4% have been health care workers exposed to blood in the workplace.