

# **Chapter 14 – Bloodborne Pathogens**

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## **14.1 Foreword**

The California Occupational Safety and Health Administration (Cal/OSHA) has determined that certain employees face a significant health risk as the result of possible occupational exposure to bloodborne pathogens. These pathogens include the virus that causes hepatitis B, a serious liver disease, and the virus that causes AIDS.

Cal/OSHA has developed a standard that requires employers and employees to minimize or eliminate this exposure. By having an effective Bloodborne Pathogens (BBP) Exposure Control Plan in each department where exposures might occur, the County will not only be meeting the requirements of the law, it will be protecting its employees and clients from these health risks.

## **14.2 Introduction**

### **14.2.1 California OSHA Bloodborne Pathogens Standards**

Under the Cal/OSHA Standard<sup>1</sup> all facilities where employees may be exposed to bloodborne pathogens must have a written Exposure Control Plan that identifies who may have occupational exposure and describes the procedures for protecting those employees.

### **14.2.2 Purpose of this Document**

This document is the Bloodborne Pathogens Exposure Control Plan for Santa Clara County. It contains general procedures, but requires each department to complete two essential elements of the program:

- 1) A list of job classifications at risk of exposure to bloodborne pathogens.
- 2) Detailed procedures that may be unique to the individual County department or operation.

County departments can either develop their own exposure control plans or utilize this Plan with amendments to Appendix A which should contain job classifications and unique procedures for the

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<sup>1</sup> *California Code of Regulations, Title 8, section 5193. October 1992*

department. Departments with no occupational exposures to bloodborne pathogens do not need an exposure control plan.

Exposure control plans must be accessible to all employees and available to Cal/OSHA upon request. Each department must review and update its Exposure Control Plan annually.

NOTE: This Plan is limited to bloodborne pathogens. Employees may also be covered by other procedures for airborne pathogens, pathogens transmitted by the oral/fecal route, diseases from animal bites, etc.

## 14.3 Sources of Exposure

An exposure occurs when the employees skin, eye, mucous membrane, or parenteral (inside the skin but outside the intestine) area comes into contact with an infectious material such as human blood, human blood components, products made from human blood, or other potentially infectious materials. Infectious materials include the following human body fluids:

- Semen.
- Vaginal secretions.
- Cerebrospinal (around the brain and spine) fluid.
- Synovial (joint) fluid.
- Pleural (lung) fluid.
- Pericardial (around the heart) fluid.
- Peritoneal (body cavity) fluid.
- Amniotic (womb) fluid.
- Saliva in dental procedures.
- Vomit
- Any body fluid that is visibly contaminated with blood.
- All body fluids in situations where it is difficult or impossible to differentiate between body fluids.
- Any unfixed tissue or organ (other than intact skin) from a human (living or dead).
- HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture medium or other solutions.
- Blood, organs, or other tissues from experimental animals infected with HIV or hepatitis B.

Contact with urine or feces is *not* considered an exposure for purposes of this standard; nor is exposure to animal blood or bodily fluids. Contact with sewage is not usually an exposure except in situations where drainage from sinks, etc., may contain bloodborne pathogens – commonly clinics and hospitals.

## 14.4 Employee Populations at Risk

Cal/OSHA has not attempted to list all of the operations or job classifications where occupational exposure may occur; Cal/OSHA instead requires that the employer prepare such a list. Departments must include their lists in Appendix A.

County employees listed in Appendix A who are “reasonably anticipated” to have an exposure (as defined above) during the performance of their duties are considered at risk for infection by bloodborne pathogens. Typical job classifications at risk include firefighters, peace officers, doctors, nurses, dentists, certain housekeeping and laboratory personnel, waste handlers, and others who encounter medical waste.

Be sure to make the exposure determination without regard to the use of personal protective equipment such as gloves, goggles, etc. (That is, consider exposure to exist even if the equipment is being used).

### **Emergency Response Teams**

Members of an Emergency Response Team at their work site but whose job title is not in the list of At Risk Employees (Appendix A) are still covered by all the provisions of this Plan (including post-exposure follow-up) *except* the pre-exposure hepatitis B vaccine.

## **14.5 Hepatitis B Vaccination**

Hepatitis B virus is a major cause of acute and chronic hepatitis, cirrhosis, and cancer of the liver. Fortunately, an effective vaccine exists. If an effected employee may have occupational exposure, the County will provide the employee with a hepatitis B vaccination. Personnel Benefits has made arrangements for health plan providers to administer the vaccinations at no cost to the employee.

### **14.5.1 New Employees**

For new employees in positions listed in Appendix A, Concentra Occupational Health will obtain documentation related to the history of hepatitis B disease or vaccination as part of the pre-employment physical examination.

Supervisors will offer the hepatitis B vaccination to new employees within 10 days of their initial assignment. Within this 10 day period supervisors must provide information on 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.

### **14.5.2 Declining the Vaccine**

Employees may decline to be vaccinated. Employees have the option to change their mind at a later date and request and receive the vaccination.

Supervisors must obtain a signed declination statement from employees who decline to be vaccinated (see Appendixes B and C) and keep it on file with other information about the employee's vaccination status.

## **14.6 Safe Work Practices**

Client medical history and examination cannot reliably identify all clients infected with HIV or other bloodborne pathogens. To fully protect themselves employees must approach all human blood and other body fluids as if they contained bloodborne pathogens. Where the employee cannot distinguish between body fluids, they must assume all body fluids to contain potentially infectious materials.

Employees must observe the following precautions to prevent direct contact with blood and other potentially infectious materials. Failure to comply with these precautions may result in disciplinary action.

NOTE: Employees may need to take additional precautions when working with clients with suspected or diagnosed conditions such as tuberculosis.

### **14.6.1 Engineering and Work Practice Controls**

Needleless Systems, Needle Devices, and Non-Needle Sharps.

**Needleless Systems.** Needleless systems shall be used for:

- a. Withdrawal of body fluids after initial venous or arterial access is established;

- b. Administration of medications or fluids; and
- c. 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;
- b. Accessing a vein or artery;
- c. Administration of medications or fluids; and
- d. 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:

1. Market Availability. The engineering control is not required if it is not available in the marketplace.
2. 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 judgement, 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.
3. Safety Performance. The engineering control is not required if the department 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.
4. Availability of Safety Performance Information. The engineering control *is required* even if information on the safety performance or procedure is unavailable. Until the engineering control is proved to be unnecessary, it must be utilized.

### 14.6.2 Preventing Exposures

Perform all procedures involving blood or other potentially infectious body fluids in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

1. Shearing or breaking of contaminated needles and other contaminated sharps is prohibited.
2. Contaminated sharps shall not be bent, recapped, or removed from devices.
  - a. EXCEPTION: Contaminated sharps may be bent, recapped or removed from devices if:
    - i. The employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure; and
    - ii. The procedure is performed using a mechanical device or a one-handed technique.
3. Sharps that are contaminated with blood or other potentially infectious materials 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.

4. Disposable sharps shall not be reused.
5. 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.
6. The contents of sharps containers shall not be accessed unless properly reprocessed or decontaminated.
7. 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.
8. Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
9. 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.
10. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.
11. A biological safety cabinet or Plexiglas safety shield shall be accessible and used for all procedures likely to produce aerosols or droplets.
12. If a protective glove is torn or a needle stick or other injury occurs, remove the glove, wash hands thoroughly, and promptly don a new glove. Consider the needle or instrument involved in the incident to be contaminated. Do not throw away needle after being stuck. This is helpful if the origin of the needle is unknown or the patient declines testing and the condition of the patient is unknown.
13. Take the necessary precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures, when cleaning used instruments, during disposal of used needles, and when handling sharp instruments after procedures.
14. If an employee has exudative lesions or weeping dermatitis, the employee must refrain from all direct client contact and from handling equipment the client has come in contact with until the condition resolves and the employee is cleared by a physician.

### **14.6.3 Sterilization and Disinfection**

- If a tool or piece of equipment requires sterilization, clean it thoroughly at the point of use to remove organic debris before exposing it to any germicide.
- Follow the manufacturer's recommendations for the use of the germicide, the directions for cleaning and disinfecting of the device, and the specifications for compatibility of the medical device with chemical germicides.
- Sterilize before reuse instruments or devices that enter sterile tissue or the vascular system of any client or through which blood flows.
- Sterilize or use high level disinfection on surfaces that contact mucous membranes or are soiled with blood or body fluids.
- Chemical germicides that are registered with the U.S. Environmental Protection Agency (EPA) as "sterilants" may be used either for sterilization or high level disinfection depending on contact time. In addition to commercially available germicides, solutions of sodium hypochlorite (household bleach) 1:100 to 1:10 dilution are effective depending on the amount of organic material (e.g., blood, mucous) present on the surface to be cleaned and disinfected. Repeated exposure to sodium hypochlorite, especially to the 1:10 dilution, may corrode certain medical devices. Therefore, it is

important to check with the manufacturers' recommendations for products. NOTE: DO NOT mix sodium hypochlorite (bleach) with any other cleaning solutions since the mixture can produce toxic chlorine gas.

- Prior to repairing or shipping, examine equipment that may become contaminated with blood or other potentially infectious materials and decontaminate it. If decontamination is not feasible, attach a biohazard label to the equipment or portions of the equipment that remain contaminated.

SUPERVISORS shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or manufacturer as appropriate prior to handling, repair or shipping.

SUPERVISORS responsible for operations that result in the sterilization of contaminated materials shall make sure proper stainless steel containers are labeled and available at the work site for the storage and sterilization of such materials. Containers should also be in all biological safety cabinets, as appropriate.

- Close containers before taking them to the autoclaving area. If outside contamination of the primary container occurs, put the primary container within a second container that prevents leakage during storage and transport.

#### 14.6.4 Specimens

Place specimens of blood or other potentially infectious materials in a container that prevents leakage. Make sure that such containers are properly labeled or color-coded. (Specimens that remain in the facility do not need to be labeled with the "biohazard" symbol or color coded if the facility has documented practices of universal precautions and employees can demonstrably recognize the containers as containing specimens).

#### 14.6.5 Labels

- Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials, and other containers used to store, transport or ship blood or other potentially infectious materials, except where exempted.

NOTE: Other labeling provisions such as Health and Safety Code Sections 118275 through 118320 may be applicable.

- Labels shall include any of the following legends:

BIOHAZARD

Or in the case of regulated waste the legend

BIOHAZARDOUS WASTE or SHARPS WASTE

as described in Health and Safety Code Sections 118275 through 118320.

- These labels shall be predominantly or entirely fluorescent orange or orange-red with lettering and symbols in a contrasting color.
- 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. Labels on red bags or red containers do not need to be color-coded. Orange biohazard bags are not allowed.



- 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 other potentially infectious materials 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 also state which portions of the equipment remain contaminated.
- Regulated waste that has been decontaminated need not be labeled or color-coded.

## **14.7 Cleaning and Decontaminating Spills of Blood or Other Body Fluid**

- Wear gloves and other appropriate protective equipment (e.g., gowns, aprons, and masks) during the cleaning and decontaminating procedures for spills of any kind.
- In client examination or treatment areas, remove visible spills of blood and body fluids with an absorbent material (e.g. paper towel). Then decontaminate the area with an effective disinfectant.
- If a large spill of cultured or concentrated infectious agent occurs flood the contaminated area with a liquid germicide before cleaning then decontaminate with a fresh germicidal chemical.
- Consider materials used for cleaning and decontamination as infectious waste and dispose of as such.
- Implement good hygiene practices and wash hands and body areas possibly exposed with soap and water or use an approved disinfectant.

## **14.8 Work Environment Restrictions**

- DO NOT eat, drink, smoke, apply cosmetics or lip balm, or touch contact lenses in work areas where there is the possibility of exposure to bloodborne pathogens. These activities are permitted ONLY in designated work areas.
- DO NOT keep food and drink in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.
- DO NOT keep lunch or any other food or beverages in a refrigerator containing biologicals.
- DO NOT wear contaminated protective clothing into eating areas such as break rooms or cafeterias.
- Put a "BIOHAZARD" sign in all work areas not approved for personal use, eating, or storage of food. The signs must be fluorescent orange and display the standard Biohazard legend:



## 14.9 Handwashing

Handwashing is a major part of infection control in the workplace. Because gloves may not provide complete protection, and because the act of removing gloves can lead to exposure, basic handwashing remains important. Handwashing is the single most important procedure for preventing infections in many facilities.

### 14.9.1 Sinks and Soaps

- General Services Agency or department approved handwashing products and equipment shall be available in all areas where occupational exposure to bloodborne pathogens is anticipated. Approved antimicrobial agents currently include iodophors and chlorhexidines.
- Typically the restroom facilities would be the normal place for handwashing.
- In the field, wash hands at a service station or fast food restaurant. If the employee plans to be in situations where field contact is possible, they should carry handwashing products that do not require water.
- If possible, install sinks with faucets that can be turned off by means other than the hands (e.g., foot pedals) and sinks that minimize splash. These improvements can help employees avoid immediate recontamination of washed hands.
- Store handwashing agents in closed containers. Use disposable containers whenever possible. If not possible, use documented routine maintenance schedules for refilling and cleaning reusable dispensers. Wash such containers and dry them thoroughly before refilling. Do not add liquid to "top off" a partly full dispenser.
- Check all handwashing agents for expiration dates before using. This is particularly essential for antimicrobial containing agents that do not require water for use.
- If the employee uses hand lotion, they should buy it in small sizes, keep it capped, and discard it at short term intervals, since it can support the growth of pathogens if contaminated.

### 14.9.2 When Hand Washing Is Required

In general, the decision whether or not to wash the hands is dependent on the intensity of contact with clients, equipment or clients' belongings, the degree of contamination likely to occur with the contact, and the client's susceptibility to infection.

Most routine and brief client care activities involving direct client contact (e.g., taking a blood pressure) other than that discussed above do not require handwashing.

Most routine clinic activities involving indirect client care (e.g., handing a client's medications, food, or other objects) do not require handwashing.

In the absence of a true emergency, the employee should always wash their hands as follows:

With plain soap...

- AFTER coming to work.
- BEFORE leaving their facility.
- BEFORE meals.
- AFTER use or assistance with using the bathroom.
- AFTER removing gloves and other personal protective equipment.
- AFTER handling used tissues, sneezing, coughing, or wiping nose.
- AFTER touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms (those sources include urine measuring devices or secretion collection apparatuses.)
- FOR general client or patient care.
- WHENEVER the employee has any doubt about the necessity of washing hands.

With an antimicrobial handwashing product...

- BEFORE caring for newborns and when otherwise indicated during their care.
- BEFORE taking care of severely immunocompromised clients.
- BEFORE performing invasive procedures or handling invasive or implantable devices.
- AFTER exposure to blood or body fluids, once hands have been rinsed free of such materials.

### **14.9.3 Hand Washing Method**

- Wet hands under a stream of water.
- Apply handwashing agent (liquid or other).
- Vigorously rub together all surfaces of hands from wrist to fingertips and under fingernails for at least 10 seconds.
- Thoroughly rinse hands under a stream of water.
- Pat dry with a towel. DO NOT friction rub with paper towels. It can cause chaffing or reddening of the skin.
- Use towel to turn off water faucet (if not using foot operated sink controls). DO NOT touch the dirty faucet with clean hands.

#### **14.9.4 Waterless Method (When water is not available)**

- Only use handwashing products that do not require water where sinks are unavailable or during disasters and emergency situations where plumbing is interrupted.
- The employee can use antimicrobial towelettes in place of plain soap when appropriate.
- When the employee uses such products, they should wash their hands with soap and running water as soon as possible.

#### **14.9.5 Personal Problems Related to Handwashing**

Employees who have allergic reactions to antimicrobial soaps, severely chapped hands, or a skin condition of the hands should immediately inform their supervisors and consult their healthcare provider.

Supervisors shall make alternatives such as hypoallergenic gloves, glove liners, powderless gloves, or similar alternatives accessible to those who are allergic to the gloves normally used.

In some situations, the employee may substitute the use of plain soap and gloving for antimicrobial soap, but only after consulting with and receiving the concurrence of a health care provider.

### **14.10 Protective Equipment**

Employees shall use appropriate personal protective equipment to prevent skin and mucous membrane exposures whenever they anticipate contact with blood or other body fluids. Supervisors shall make this equipment readily available in the types and sizes needed.

#### **14.10.1 Gloves**

Use disposable (latex) gloves:

- As an extra margin of safety.
- When the employee's hands are likely to be contaminated with potentially infectious material such as blood, body fluids, or secretions.
- To prevent gross microbial contamination of hands, such as when handling objects soiled with feces.
- For handling items or surfaces contaminated or possibly contaminated with blood or body fluids.
- When performing first aid that involves blood or bodily fluids.
- Use utility gloves primarily for maintenance, repair, housekeeping and janitorial tasks.
- For certain high-risk procedures, such as high-risk surgery on a high-risk patient, use double gloves.
- When doing medical procedures or direct patient care.
- For touching blood and other body fluids, mucous membranes, or non-intact skin of all clients.
- For performing vascular access procedures such as venipuncture, phlebotomy, etc.
- For performing invasive procedures, procedures requiring aseptic techniques, or when touching open wounds.

## 14.10.2 How to Use Gloves

- Change disposable gloves after contact with *each* client. Remove gloves by turning them inside out, avoiding skin contact with the outside surfaces.
- Replace disposable gloves when visibly soiled, torn, punctured or when their integrity is compromised.
- Do not wash disposable gloves or disinfect them for reuse.
- Employees *may* clean utility gloves or disinfect them for reuse if the integrity of the glove is not compromised. However, employees must discard them if they are cracked, peeling, torn, punctured, exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
- To avoid contaminating other articles in the area, employees must remove their gloves when they are contaminated with patient excretions or secretions.
- Employees must wash their hands after removing gloves *and before performing other tasks*, since gloves may become perforated during use and bacteria can multiply rapidly on gloved hands.
- Do not use gloves as a substitute for handwashing (unless allergic to handwashing soaps or cleansers).
- Do not use a gloved hand, regardless of the type of glove, to write, answer the phone, turn on a light or faucet, or to touch anything that will become a potential threat to the safety of other employees or clients who may handle these items without gloves.

## 14.10.3 Other Protective Equipment

- Moisture repellent gowns, coats, or aprons: Employees must wear these during procedures or situations that are likely to generate splashes of blood or other body fluids.
- During procedures and situations that are likely to generate splashes or droplets of blood or other body fluids, employees must wear approved appropriate personal protective equipment (PPE) to prevent exposure to mucous membranes. Examples of such situations include working on clinic sewage pipes and dispensing blood from a syringe (with or without a needle attached).
- In situations likely to produce aerosolization (fine mist), employees must wear National Institute of Occupational Safety and Health (NIOSH) approved dust, mist, and fume masks (e.g., high-efficiency particulate air [HEPA] filter) and approved eyewear.

Supervisors shall make sure that employees who wear respirators are given a physical exam and are fit tested. See the County's Respiratory Protection Program, Chapter 17, and available information from ESA Risk Management for further direction on this topic.

Supervisors shall make resuscitation bags or other ventilation devices (i.e., pocket masks, mouthpieces) available in areas where they anticipate the need for resuscitation.

## 14.11 Housekeeping

Employees and supervisors shall follow the following procedures when cleaning or decontaminating equipment and working surfaces that might be contaminated with blood or other potentially infectious materials.

Employees and supervisors shall consider blood and other body fluids from all clients to be infectious. Housekeeping does not include medical waste handling or laundry operations; these are covered in the “Laundry” and “Medical Waste Disposal” sections. These procedures apply not only to permanent facilities such as clinics, but also to vehicles and any other worksites that may become contaminated.

### **14.11.1 Disinfectants**

- Clean and decontaminate equipment and surfaces with an appropriate disinfectant as soon as possible after contact with potentially infectious materials.
- Cleaning and disinfection methods will vary, and the disinfectant used will depend upon the task, since different products kill different viruses and bacteria. Two common disinfectants are hypochlorite (bleach – a 1:100 solution is usually used; 1:10 is considered very strong) or a quaternary ammonium compound. For advice on which product to use, call VMC Infection Control at 299-5583.

NOTE: The use of these products may require adherence to regulations enforced by Cal/OSHA, Cal/EPA, The County Office of Toxics Enforcement, and the County Agriculture Commissioner. Check with each of these before implementing a procedure that involves the use of a disinfectant.

### **14.11.2 When to clean work surfaces**

Hepatitis B virus can survive for at least one week in dried blood and can be spread through the touching of surfaces or equipment. To ensure that employees and clients are not exposed clean and decontaminate all equipment and surfaces with an appropriate disinfectant after contact with blood or other potentially infectious materials. While extraordinary attempts to disinfect or sterilize surfaces such as walls or floors are rarely needed, routine cleaning and removal of soil are required. Decontaminate surfaces under the following circumstances:

- After procedures are completed.
- Immediately (or as soon as feasible) when surfaces are overtly contaminated.
- After any spill of blood or other potentially infectious material.
- At the end of the work shift if the surface may have become contaminated since the last cleaning by setting down contaminated instruments, specimens, etc.
- When the employee is going to leave the work area for a period of time.
  - Exception: Where employees perform procedures on a continual basis throughout a shift or a day, such as with a clinical laboratory technician performing blood analyses, they do not need to decontaminate the work surface before the technician can proceed to the next analysis; rather, decontaminate contaminated work surfaces after completing a set of procedures unless the procedure results in surface contamination.
  - Exception: Employees do *not* need to disinfect desks, counter tops, etc. that remain uncontaminated.
- If the Creutzfeld-Jakob virus may be present soak the area for one hour with a 1:10 solution of bleach. This persistent virus causes a fatal brain disease.

### **Written cleaning schedules**

CUSTODIAL SUPERVISORS shall work with facility managers or supervisors to establish a written schedule of cleaning and decontamination based upon:

- The location within the facility (e.g., examining room versus waiting room).
- The type of surface to be cleaned (e.g., hard tile versus carpeting).
- The type of soil present (e.g. gross contamination versus minor splattering).
- Tasks and procedures being performed (e.g., laboratory analyses versus normal client care).

The custodial supervisor is responsible for making sure janitors adhere to their schedules.

Work site supervisors must make sure that employees adhere to any other cleaning schedules that may be needed.

Note: Agricultural regulations also require a schedule for application of disinfectants (which they classify as pesticides). Employees can use the same schedule to meet both the Cal/OSHA and the Agricultural regulations. See the County's written Hazard Communication Program or Agriculture Commissioner for more information.

### **14.11.3 Protective Covers**

As an alternative to decontamination, employees may protect items and surfaces with a cover. Covers are useful when a piece of equipment is hard to decontaminate but can be protected by a cover such as plastic wrap, aluminum foil, or imperviously backed absorbent paper. If the employee uses a cover, it must be replaced immediately upon contamination and/or at the end of the work shift.

### **14.11.4 Cleaning of Waste Containers**

Janitors must follow a regular schedule for inspecting and decontaminating all garbage cans, wastebaskets, pails, and similar receptacles that are intended for reuse. This will prevent the can from contaminating the outside of liner bags. Janitors or employees at the site must clean cans immediately (or as soon as possible) if they become visibly contaminated (e.g., from a leaky liner). Janitors may clean cans with soap and water unless contamination with medical infectious waste is known or believed to have occurred, then disinfection is necessary. Trash containers used to collect regulated waste must be closable but not necessarily covered during use. Containers must be covered prior to removal to prevent spilling during moving, storing, or shipping. For specifics see the "Waste Disposal" section.

### **14.11.5 Cleaning up sharp items**

- A cut from contaminated broken glass can introduce bloodborne pathogens into the blood stream. DO NOT use bare hands to pick up broken glassware that may be contaminated. Employees may use a brush and dustpan, tongs, or forceps. DO NOT use a vacuum cleaner.
- Put broken glass in a sharps container and decontaminate or discard clean-up tools.
- NO ONE is to reach into containers that hold reusable needles, sharps, or other broken glassware contaminated with blood or other potentially infectious materials. Supervisors must change any operation that requires reaching into the container. Broken thermometers that contain mercury are considered hazardous waste. Contact the HAZMAT team to clean up broken mercury thermometers.

- Clean reusable equipment and glassware before it is decontaminated or sterilized. Blood interferes with the disinfecting and sterilizing process.

### **14.11.6 Inspections**

CUSTODIAL SUPERVISORS, DEPARTMENT SUPERVISORS, or safety committees must make regular inspections to ensure that these procedures are being followed.

## **14.12 Laundry and Linens**

“Contaminated laundry” is laundry that has become contaminated with blood or potentially infectious materials, or laundry that may contain sharps.

Bag contaminated laundry, both linen and paper, at the site where it was used in color-coded containers or bags for transportation. If an employee intends to send laundry to a place that does not follow universal precautions, the employee must put the laundry in containers with standard labeling or color coding (use yellow bags for contaminated laundry to distinguish it from medical waste which is in red bags).

### **14.12.1 Cloth linens**

- Handle contaminated laundry as little as possible and with minimum agitation to prevent gross microbial contamination of the air and of persons handling the linen. Do not sort or rinse contaminated laundry in client care areas.
- Place all contaminated laundry in covered hampers.
- If the contaminated laundry is wet and dripping, use a plastic bag to contain the fluid.
- If the outside of the outer plastic bag becomes soiled with blood or body fluids, clean it with an approved disinfectant before taking it to the laundry.
- Wear gloves when handling all contaminated laundry. Wear other protective clothing as needed.
- If personal clothing (lab coat, etc.) becomes contaminated the employee must not take it home to wash it.

SUPERVISORS shall arrange to have employees’ contaminated laundry done for them.

### **14.12.2 Paper linens**

- Put paper linens, (paper drapes, examination table paper, paper towels, etc.) in regular trashcans unless contaminated with blood or body fluids.
- Place contaminated paper linens in a red medical waste disposal bag upon the completion of the client examination. Orange biowaste bags are not allowed.
- When the red bag of paper linens is full, or on a weekly basis, remove the bag to the designated containment area for pickup, if appropriate, based on facility location and program. (See “Medical Waste Disposal”).

## **14.13 Waste Disposal**

The following procedures will assure the safe handling, storage, containment, collection, transportation and disposal of medical waste.



NOTE : All generators of medical waste must also comply with regulations<sup>2</sup> enforced by the Hazardous Materials Compliance Division (HMCD).

### 14.13.1 Types of Waste

Regulated Waste is blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbial wastes containing blood or other potentially infectious materials.

Medical waste is biohazardous waste, sharps waste, or waste which is generated or produced as a result of the diagnosis, treatment, or immunization of human beings or animals, in research, or in the production or testing of biologicals.

Biohazardous waste is defined as:

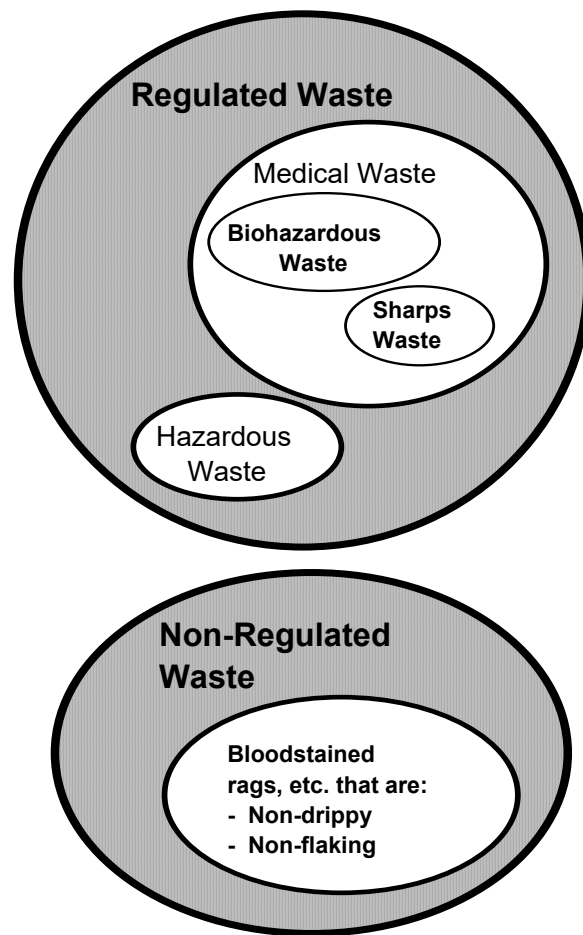
- Laboratory waste, including, but not limited to, all of the following:
  - Human or animal specimen cultures from medical and pathological laboratories.
  - Cultures and stocks of infectious agents from clinical, research, and industrial laboratories.
  - Wastes from the production of bacteria, viruses, or the use of spores, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures.
- Waste containing any microbiologic specimens sent to a laboratory for analysis.
- Animal parts, tissues, fluids, or carcasses suspected by the attending or referring veterinarian of being contaminated with infectious agents known to be contagious to humans.
- Waste that contains recognizable fluid blood, fluid blood products, containers or equipment containing blood that is fluid or blood from animals.

Sharps waste is any device having acute rigid corners, edges, or protuberances capable of cutting or piercing, including hypodermic needles, syringes, blades, and contaminated broken glass.

***NOTE: Bloodstained rags, etc. that are non-drippy and non-flaking are not regulated and can be disposed of in the regular trash.***

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<sup>2</sup> The "Medical Waste Management Act" of 1990 as defined in the California Health and Safety Code starting in Section 25015. Any generator of medical waste must have a medical waste management plan and be registered with the enforcement agency.



## 14.13.2 Sharps Disposal

### Design and Placement of Sharps and Sharps Containers

- Whenever possible use safety syringes and other devices designed to decrease the potential for needlesticks.
- Supervisors will develop and enforce procedures for the supply, placement, and security of the sharps containers. This includes small portable containers for field use and large containers for large sharp objects.
- Approved containers should be closable, resistant to being opened without great difficulty, leak proof on sides and bottom, and labeled as biohazardous.
- Needle disposal containers are equipped with special configurations to safely remove the needle from vacutainers (or other similar equipment) without manipulating by hand. Disposable vacutainers are better because they avoid needle removal.
- To prevent contamination, place sharps containers as close as possible to the area of use, and as far as possible from "clean" areas.
- To prevent unauthorized removal or exposure secure sharps containers placed in client areas.

- Sharps containers must be structured so that it is not possible for a hand to reach into the containers to retrieve used needles.
- Do not store or process contaminated reusable sharps in a manner that requires anyone to reach by hand into a container of sharps.
- To keep sharps out of the regular garbage do not put wastebaskets, trashcans, etc., underneath sharps containers.

### Sharps Disposal Procedures

- When walking to the sharps container always hold needles and sharps with the *point down*.
- Put all disposable needles and syringes, scalpel blades, and other sharp items into approved sharps containers for disposal immediately or as soon as possible after use.
- Place items *point down* into the opening of the sharps container. NEVER force items into the container.
- If employees suspect they will be encountering sharps in an area away from secured sharps containers they should carry a portable small sharps disposal container.
- Employees should put microscope slides in puncture resistant biohazard containers that, when full, will be disposed of as pathological waste. Put slides used for rabies testing in the appropriate biohazard container *and autoclave it* prior to disposal in the pathological waste container.
- To prevent needlestick injuries, DO NOT recap, bend, or break needles. Remove them from disposable syringes or otherwise manipulate them by hand. DO NOT recap scalpels or other sharps. In special situations where employees cannot handle sharps without recapping, they should ask the head of the Communicable Disease Control Unit for advice. Should recapping become necessary, use *only* mechanical means or a “one hand” method.
- NEVER try to retrieve an object from a sharps container.
- DO NOT use needle clippers or any other devices to cut needles since this may result in the aerosolization of blood.
- DO NOT pick up broken glassware that may be contaminated (i.e., test tubes and slides) directly with the hands. Decontaminate first by flooding the site with approved disinfectant and letting it stand for 30 minutes. Employees may then pick up broken glassware with a brush and dust pan, tongs, or forceps. *DO NOT use a Vacuum cleaner.*
- When a sharps container is 3/4 full, seal it and bring it to the designated medical waste disposal area and put it in a biohazardous waste disposal container.
- Supervisors will arrange with an appropriate agency for the removal and disposal of the containers.

### **14.13.3 Biohazardous Waste Disposal**

- Separate biohazardous waste from other waste at the point of origin. Put biohazardous waste in a *labeled* red plastic bag immediately after use. When the red bag is full or on a weekly basis, seal it and put it into another bag or container labeled “Biohazard”.

- Store the “biohazard” bags or containers in an area secure from unauthorized persons until the disposal contractor or other authorized personnel can haul the waste away. Supervisors will arrange for a secure storage area.
- Supervisors will ensure that areas are secure and marked with warning signs on or next to the doors, gates, or receptacle lids that reads “*Caution Biohazardous Waste Storage Area Unauthorized Persons Keep Out,*” and “*Cuidado Zona de Residuos Biologicos Peligrosos Prohibida La Entrada a Personas No Autorizadas.*” Add other languages as needed. Employees must be able to read the signs in daylight from at least 25 feet away.
- Supervisors shall obtain disposal equipment (red plastic bags, sharps containers, signs, and Biological Hazard bags) as needed.
- Supervisors shall also maintain an agreement for services contract with a licensed medical waste hauler for the transport and disposal of medical waste.
- The waste hauler must use a rigid container with fastened lid to transport the medical waste from the secure collection area to approved containment and disposal area. This is important, since the County can be held responsible for biohazardous waste even after disposal.
- Supervisors of sites that dispose of medical waste only occasionally may use an isolyser treatment system or arrange to use the approved containers in a facility that has a medical waste management plan.

## 14.14 Procedures If An Exposure Occurs

Bloodborne pathogen exposure is always possible, despite precautions. The following post-procedures apply to *all* County employees who become exposed regardless of their risk of exposure on a daily basis.

### 14.14.1 Immediately After the Exposure

**NOTE: If the exposure may involve HIV you must also read the HIV section below.**

- Give Immediate first aid (don’t wait; have someone else tell the Supervisor):
  - *Needle stick or puncture wound* Express blood from the wound. Scrub the area vigorously with soap and water for at least 5 minutes. Do not discard the needle.
  - *Eye exposure* Irrigate immediately with cool water or normal saline solution for 60 seconds.
  - *Mucous membrane exposure* Rinse the area with oxygenating agent such as hydrogen peroxide half strength for thirty seconds and repeat several times. Do not swallow.
  - *Human bite* Cleanse the wound with an iodophor, e.g., Betadine and sterile water.
- Report and Document the Exposure:
- Tell the supervisor immediately.

Supervisors must immediately complete a Supervisor’s First Report of Injury and a Worker’s Compensation form. (For any needle stick, indicate the type of needle or syringe involved, e.g., safety syringe vs. other type.) To protect the confidentiality of the employee and source individual, the Supervisor’s Report of

Injury shall not include information concerning HIV status of the source individual or employee.

- The Department Safety Coordinator shall report the exposure to the Agency/ Department Head.
- Report to the nearest Concentra Occupational Health clinic (Monday - Friday, 7:00 a.m. to 5:00 p.m.) immediately after completing immediate first aid. (or Valley Medical Center Emergency Room after hours).

### **14.14.2 Medical Procedures**

Cal/OSHA requires the treating clinician to follow a number of specific procedures included in Appendix D. Concentra Occupational Health and the VMC Emergency Room are familiar with these procedures. Supervisors should ensure that the exposed employee receives post-exposure follow-up from Concentra Occupational Health (or VMC).

#### **14.14.2.1 Human Immunodeficiency Virus (HIV) Exposures**

If the employee has received an exposure that is likely to involve HIV, preventive treatment (prophylaxis) can help prevent infection in some situations.

Immediately after the exposure, once first aid has been given: Go to Concentra (or VMC), 7:00 am to 5:00 p.m. Monday - Friday, and ask to speak to a nurse. If the exposure occurred during off hours, report to the Valley Medical Center Emergency Room (ER) and indicate that a potential exposure to bloodborne infectious diseases has occurred.

#### **14.14.2.2 Testing the Source Individual**

Supervisors shall take the following action:

- Identify and document the source individual as soon as possible, unless identification is not feasible or prohibited by state or local law.
- Have the source individual's blood tested as soon as possible (after consent is obtained) to determine hepatitis B and HIV infectivity. If consent is not obtained, the supervisor shall 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, shall be tested and the results documented.
- If the source individual is already known to be infected with HBV or HIV, testing for the source of the individual's known HBV or HIV status need not be repeated.
- Arrange for pre- and post-test counseling for the source individual being tested for HIV.
- Maintain confidentiality of the source individual's test results and name.
- Tell the exposed employee the results of the source individual's testing and the applicable laws and regulations concerning confidentiality of the identity and infectious status of the source individual.

#### **14.14.2.3 What to Provide to the Employee:**

SUPERVISORS will make sure that the following are made available to the exposed employee as soon as possible:

- Treatment Authorization form Concentra or Kaiser (Located on Workers' Compensation website)

- Employee's Claim for Workers' Compensation Benefits form (Located on WC website)
- Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred (Supervisor's 1<sup>st</sup> Report of Injury form – Located on WC website).
- Results of the source individual's blood testing, if available.
- Post exposure prophylaxis, when medically indicated, as recommended by the United States Public Health Service.
- Counseling regarding the employee's exposure and any resulting condition. The healthcare provider will coordinate counseling, but the supervisor must ensure that it is received by the employee.
- A confidential medical evaluation of reported illnesses experienced by the employee after the exposure.
- The evaluating healthcare professional's written opinion (from Concentra or the VMC Emergency Room) within 15 days of the completion of the evaluation.

#### **14.14.2.4 What to Provide to the Healthcare Professional:**

SUPERVISORS shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

- A description of the exposed employee's duties as they relate to the exposure incident.
- Documentation of the route(s) of exposure and circumstances.
- Results of the source individual's blood testing, if available.
- All medical records relevant to the appropriate treatment of the employee, including vaccination status, that are the employer's responsibility to maintain.

#### **14.14.2.5 Sharps Injury Log**

Each department shall establish and maintain a Sharps Injury Log, which is a record of each exposure incident involving a sharp. The exposure incident shall be recorded on the log within 14 working days of the date the incident is reported. This information shall be recorded in a manner that protects the confidentiality of the injured employee. The information recorded shall include the following information, if known or reasonably available:

- Date and time of the exposure incident;
- Type and brand of sharp involved in the exposure incident;
- A description of the exposure incident which shall include:
  1. Job classification of the exposed employee;
  2. Department or work area where the exposure incident occurred;
  3. The procedure that the exposed employee was performing at the time of the incident;
  4. How the incident occurred;

5. The body part involved in the exposure incident;
6. If the sharp had engineered sharps injury protection, whether the protective mechanism was activated, and whether the injury occurred before the protective mechanism was activated, during activation of the mechanism or after activation of the mechanism, if applicable;
7. If the sharp had no engineered sharps injury protection, the injured employee's opinion as to whether and how such a mechanism could have prevented the injury; and
8. The employee's opinion about whether any other engineering, administrative, or work practice control could have prevented the injury.

#### 14.15 Training Supervisors

Training Supervisors must arrange for all the training listed in Appendix A. The training must be offered during working hours and at no cost to the employee.

**New Employees and Transferred Employees.** Must receive basic information about this Exposure Control Plan and the types of possible exposures at the time of employment or employment transfer. Complete training for new employees must be completed within 90 days of employment.

**All Employees.** Must receive annual refresher training. They must also receive additional training whenever there is a change in task or procedure that may affect the employee's occupational exposure.

The trainer shall know how the subject matter applies to the workplace where he or she is providing the training.

#### 14.15.1 Required Training Content

Training materials shall be appropriate in content and vocabulary to the educational level, literacy, and language background of the trainees. Training shall include an in-depth understanding of all the policies and procedures outlined in this standard and a complete checklist of items, as seen in Appendix A. Employees must be afforded the opportunity to demonstrate understanding and ask questions.

#### 14.15.2 Training Records

Upon completion of the training program, the trainer shall send a copy of the training sign-in sheet to the employee's immediate supervisor. The trainer shall also have the employees sign and date either the "Intent to Obtain Hepatitis B Vaccine" form or the "Statement of Declination to Receive Hepatitis B Vaccination" form. The trainer will then send this form to Concentra (or VMC) and a copy to the employee's immediate supervisor.

The sign-in sheet shall include:

- Date of session.
- Contents or summary of the training session.
- Names and qualifications of persons conducting the training.
- Names and job titles of all persons attending the training session.

SUPERVISORS shall keep training records for 3 years and shall permit employees, employee representatives, and Cal/OSHA to examine and copy the records upon request.

## **14.16 Roles and Responsibilities**

This section outlines the roles and responsibilities of all County employees and outside agencies that have a role to play in the Exposure Control Plan.

### **14.16.2 Agency/Department Head**

- Ensures the implementation of Exposure Control Plan in his or her Agency/ Department.
- Allocates sufficient resources to line managers and first line supervisors to fully implement the Exposure Control Plan.
- Ensures that first line supervisors receive proper training.

### **14.16.3 Operations Manager**

- Works with the Department Safety Coordinator to develop the list of job classifications and department-specific procedures for Appendix A.

### **14.16.4 First Line Supervisor**

- Receives training on the Exposure Control Plan.
- Trains new employees on how to protect themselves from bloodborne pathogens.
- Arranges for initial and annual bloodborne pathogens training for all employees and maintains records.
- Ensures that approved protective equipment is available, maintained, and used.
- Calls Concentra (or VMC), and schedules employee(s) for hepatitis B vaccinations as needed.
- Develops disinfection and waste disposal procedures and ensures that employees follow these procedures.
- Ensures the posting of biohazard signs and labels as needed.
- Ensures that employees store and label disinfectants according to procedures.
- Ensures that exposed employees understand and follow post-exposure procedures.
- Ensure that the Sharps Injury Log is completed as required.

### **14.16.5 Employee (listed in Appendix A)**

- Receives training on the Exposure Control Plan.
- Signs the Hepatitis B Vaccination Acceptance form and gives the signed form to their supervisor subsequently receiving the hepatitis B vaccine and giving the proof of vaccination form to their supervisor. Or, signs the Hepatitis B Vaccination Declination form and gives the signed form to their supervisor.
- Follows infection control procedures including, but not limited to, handwashing.



- Tells his or her supervisor of concerns about any new or previously unknown potentials for exposure.
- Follows post-exposure procedures.

#### **14.16.6 Agency/Department Safety Coordinator**

- Helps supervisors write and establish a customized department Exposure Control Plan.
- Coordinates basic Exposure Control Plan training with supervisors.

#### **14.16.7 CEO - OSEC**

- Answers questions regarding exposure reporting and exposure control plan development.
- Establishes the County Exposure Control Plan.
- Helps departments develop department-specific Exposure Control Plans.
- Reviews Workers' Compensation reports on exposures to bloodborne pathogens.
- Evaluates and updates the Exposure Control Plan annually.

#### **14.16.8 General Services Agency - Building Operations**

- Posts biohazard warning signs as requested.
- Installs engineering controls as needed.

#### **14.16.9 Concentra Occupational Health**

- Provides vaccinations and post-exposure prophylaxis (prevention).
- Maintains medical records as required by law.

*Note: All employees of VMC will go to VMC Occupational Medicine for vaccinations and treatment. Concentra will administer the medical tracking programs.*

#### **14.16.10 Valley Medical Center Emergency Room**

751 S. Bascom Ave. San Jose, Ca. 408- 885-6900

- Provides vaccinations and post-exposure prophylaxis (prevention) after hours.

#### **14.16.11 Valley Medical Center Infection Control**

- Answers questions regarding infection control techniques and supplies. 408-885-6900

#### **14.16.13 Hazardous Materials Compliance Division (HMCD)**

- Answers questions and enforces laws regarding the safe use, storage, and disposal of disinfectants, regulated waste, and other hazardous materials.

### **14.16.14 Agricultural Commissioner**

1553 Berger Drive, San Jose, Ca. 408-918-4600

- Answers questions and enforces laws regarding the safe use, storage, and disposal of disinfectants.

### **14.16.15 Personnel – Concentra Occupational Health Administration**

- Administers and answers questions regarding health plans, and procedures and payments for hepatitis B screening and vaccination, and post-exposure prophylaxis (prevention).

### **14.16.16 Workers Compensation**

2310 N. First St. 2<sup>nd</sup> floor Suite 205, San Jose 408-441-4300

- Processes reports and claims for occupational exposure to bloodborne pathogens.
- Maintains records of occupational airborne hazard exposure injuries, illnesses and expenses.

### **14.16.17 Cal/OSHA**

39141 Civic Center Dr., Suite 310, Fremont, Ca. 94538-5818 (510)794-2521 (local compliance office)

- Conducts work site inspections to enforce the Bloodborne Pathogens Standard.

## **14.17 References**

CAL/OSHA, Title 8, California Code of Regulations, Sections 5193 (Bloodborne Pathogens)

Health and Safety Code Chapter 6.1, Sections 117600 through 118360

## **14.18 Glossary**

*Antimicrobial* - Soap or product containing an active ingredient intended to kill or inhibit organisms on skin.

*Bloodborne Pathogens* - Microorganisms that are present in human blood and that can cause disease in humans.

*Contaminated* Marked by the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

*Employee* - Any Santa Clara County staff involved in any activity that might expose him/her to client contact and/or specimens from clients. This includes permanent, and extra help personnel, all permanent and rotating staff, and any person on officially approved academic assignment (e.g., students and volunteers).

For contract employees, Cal/OSHA generally considers the “employer” to be the one who has control of the day-to-day actions and assignments of the employee.

Should any employee not listed in any of the above categories sustain an exposure as defined above, he/she will also be covered by the post-exposure procedures contained in this Plan.

*Engineering Controls* - Controls that isolate or remove the bloodborne pathogen hazard from the work place (e.g., sharps disposal containers, self sheathing needles and handwashing facilities).

**Exposure Incident** - Specific eye, mouth, other mucous membrane, non intact skin, or parenteral contact with blood or other body fluid.

**Handwashing** - A vigorous, brief rubbing together of all surfaces of hands lathered with soap for at least 10 seconds, followed by rinsing under a stream of water.

**High risk areas** - For purposes of designating when and/or where to use antimicrobial soap, high risk areas include all patient care areas, or other potentially contaminated environments (i.e., homes, lab, etc.).

**Mucocutaneous Exposure** - Body fluid contact to open wounds, non intact skin (e.g. eczema), body fluid splash to mucous membranes (e.g., mouth, eyes).

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

**Needleless System** - 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.

**Other Potentially Infectious Materials** -

- (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.

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

**Percutaneous Exposure** - A break in the skin caused by: 1) A contaminated needle, instrument, or other sharp object, 2) Glass containers with blood/body fluids, 3) Injection and/or large bore needles, and/or 4) Human bite.

**Personal Protective Equipment** - Specialized clothing or equipment worn by an employee for protection against contact with blood or body fluids.

**Plain soap** - A detergent based cleanser in any form used for the primary purpose of physical removal of dirt and contaminating organisms. It works by mechanical action and has no bactericidal activity. (Although some soaps contain low concentrations of antimicrobial ingredients, these are used as preservatives and have minimal effect on colonizing flora.)

**Sharps** - Any object that can penetrate the skin including but not limited to needles, syringes, scalpels, pasteur pipettes, and broken glass.

**Source individual** - That person who may serve as the reservoir for infection.

**Universal Precautions** - The term applied to the infection control practice of treating all clients as if they were potentially infected with Human Immunodeficiency Virus (HIV), hepatitis B virus (HBV), and /or other blood borne pathogens, especially when the diagnosis is not known.

**Work Practice Controls** - Controls that reduce the likelihood of occupational exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two handed technique).

## 14.19 Appendices

### Specific Procedures

This Exposure Control Plan is not complete until departments complete an Appendix that includes the items listed below. This Appendix must provide enough specific information to be useful to each employee who may be exposed to bloodborne pathogens on the job.

#### At Risk Employees

Each County department must prepare a list of all job classifications that may involve exposure to bloodborne pathogens. This list can be divided into two groups: 1) classifications where every employee with that job title may be exposed, and 2) classifications where only some of the employees may be exposed (be sure to state which employees, i.e., employees at a certain location or who perform particular tasks).

Departments must consider what constitutes an employee, and may need to carefully weigh whether or not to include certain contract or volunteer positions in the list of employees who may be exposed.

The following example from the County Health Department may be helpful:

<u>Classification</u>	<u>Code</u>	<u>No. of Employees</u>	<u>Potential Risk Factors</u>
Physician	P-12	7	Examines/treats patients

Senior Staff Physician II	P-28	1	Examines/treats patients
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#### Specific Procedures

Departments must provide procedures that will be useful at specific worksites. These procedures will vary from site to site, but the following checklist can serve as a guide to ensure that each department's Appendix is complete and clear.

##### Scope

- Which operations and/or facilities are covered by these procedures.
- Person responsible for updating these procedures.
- Date of last update.

##### Exposures

- Exactly how exposures may occur.
- What specific steps employees must take to prevent or reduce the chance of exposure.

## 14.19.1 Appendix A: Specific Procedures

### *Engineering Controls (fume hoods, guards, etc.)*

- \_\_\_ What kinds of engineering controls are in place.
- \_\_\_ How they are operated, if applicable.
- \_\_\_ Who inspects them, and how often.
- \_\_\_ Who maintains them.

### *Handwashing*

- \_\_\_ Where and how to wash hands when away from running water.
- \_\_\_ What type(s) of handwashing products are available and where they are kept.

### *Protective Equipment*

- \_\_\_ Which person is responsible for providing personal protective equipment and ensuring its availability and use.
- \_\_\_ Which tasks require the use of personal protective equipment.
- \_\_\_ What type(s) of personal protective equipment employees must use in various situations.
- \_\_\_ What type(s) of personal protective equipment visitors and outside service and repair personnel must use.
- \_\_\_ How they should obtain it.
- \_\_\_ How to clean and disinfect it.
- \_\_\_ How to store it.
- \_\_\_ If it is disposable, how to dispose of it.

### *Housekeeping*

- \_\_\_ What types (use brand names if necessary) of cleaners, antiseptics, and disinfectants and dilutions to use.
- \_\_\_ How they should be stored.
- \_\_\_ How they should be diluted and applied.
- \_\_\_ A Hazard Communication Program is in place if needed.

- \_\_\_ Who completes and ensures adherence to the housekeeping schedule, if applicable.

- \_\_\_ List the schedule.

- \_\_\_ Who cleans up spills, how and with what.

- \_\_\_ What should be done with the contaminated clean-up tools and supplies.

### *Laundry*

- \_\_\_ Where disposal bags are kept.

- \_\_\_ Where to put soiled laundry.

- \_\_\_ Who will clean it.

- \_\_\_ Where clean laundry is kept.

### *Waste Disposal*

- \_\_\_ What kinds of sharps employees might encounter.

- \_\_\_ How to handle the sharps (including what gloves, tools, etc, if applicable).

- \_\_\_ What kinds of sharps containers to use.

- \_\_\_ How to obtain the containers.

- \_\_\_ How to label the containers.

- \_\_\_ Where to place the containers.

- \_\_\_ How to secure the containers.

- \_\_\_ Who checks the containers regularly and how often.

- \_\_\_ How to dispose of them when  $\frac{3}{4}$  full.

- \_\_\_ Where and how to dispose of other biohazardous waste.

- \_\_\_ Where waste disposal containers are kept.

- \_\_\_ Who will haul away waste containers when full.

### *Training*

- \_\_\_ What information will be given to new employees (a checklist may help).

### **14.19.1 Appendix A: Specific Procedures**

- \_\_\_ Who will coordinate the training sessions.
- \_\_\_ Who will give the training sessions.
- \_\_\_ Who will keep the training records.

## 14.19.2 Appendix B: Form I

# Form I Statement of Intent to Obtain Hepatitis B Vaccine

I have received the risks/benefit sheet about hepatitis B vaccine and have had the opportunity to review that information. I understand that, although the vaccine has been shown to be very effective, complete protection cannot be guaranteed. I understand that the vaccine is given as a series of three injections and that I should receive all three.

*I wish to receive the hepatitis B vaccine and will contact my health plan provider.*

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

Please return: 1 copy to department administration (employee personnel file)  
1 copy to Concentra (or VMC)  
1 copy to Employee

## 14.19.3 Appendix C: Form II

# Form II Statement of Declination to Receive Hepatitis B Vaccination

I understand that due to my occupational exposure to blood or OPIM 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 OPIM and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

I have reviewed information about my risk related to hepatitis B and the vaccine, and *I do not wish to receive the hepatitis B vaccine.*

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

Please return: 1 copy to department administration (employee personnel file)

1 copy to Concentra (or VMC)

1 copy to Employee

## Medical Procedures

Medical service providers (usually US HealthWorks or VMC) will follow these procedures when treating employees who have had an exposure to bloodborne pathogens.

### *Post Exposure Procedures*

The treating physician will fill out the Doctor's First Report of Occupational Illness or injury form. *To protect the confidentiality of the employee and*

*source individual, the Doctor's First Report of Illness and all ER medical records shall not include information concerning HIV status of the source individual or employee. Documentation that a "needle stick" or "exposure to infectious disease" has occurred will be entered into the ER medical record or the general US HealthWorks record. See the "Medical Records" section below.*

Have the exposed employee's blood collected as soon as feasible and tested for HBV and HIV serological status after obtaining written consent.

If the employee consents to baseline blood collection for HBV testing but does not give



## 14.19.4 Appendix D: Medical Procedures

written 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 for HIV, such testing shall be done as soon as possible.

*All medical personnel who may interact with the employee prior to reaching the Concentra nurse or ER physician should treat the interaction as urgent and confidential.*

The healthcare professional shall limit his or her written opinion for hepatitis B vaccination to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

The healthcare professional shall limit his or her written opinion for post exposure evaluation and follow-up to:

- 1) that the employee has been informed of the results of the evaluation; and
- 2) that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment.

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

### ***HIV Exposures***

If HIV risk is a consideration, US HealthWorks or ER staff physicians will see the employee immediately and evaluate the case for possible prophylaxis with Zidovudine or AZT. ER staff who initially evaluate and treat an employee in the ER will tell that employee to follow up with Concentra (or the VMC Occupational Health) the next working day.

Risk factors to be considered in the clinician's evaluation of the risk of HIV exposure:

- Type and severity of exposure to body fluids from known or suspected HIV infected source individuals: AZT recommendations are based on exposure and severity. AZT is recommended to employees sustaining massive exposures (infection or transfusions

of blood and body fluids containing blood). It is endorsed for serious parenteral exposures (deep needle sticks). It is available but not endorsed for less severe exposures (subcutaneous, mucocutaneous).

- Body fluid type: Fluids of most concern are blood, fluid containing blood, semen and vaginal secretions. These fluids have been found to contain the highest measured concentration of HIV.
- Time elapsed from exposure to reporting of exposure.
- Source individual status.
- Employee's health status.

### Source Individual Status

- If the source individual is positive for HIV antibody then the decision to recommend AZT prophylaxis should be based on the above risk factors.
- If source individual's HIV status is unknown then the client should be assessed for HIV risk factors including: possibility of blood transfusion prior to 1985, history of injected drug abuse, gay (homosexual) or bisexual male, or sexual partner or child of any of these groups, history of multiple sexual partners, prostitution or sex with prostitutes, AIDS or evidence of HIV infection.
- Make every effort to obtain as much clinical information for the clinician as soon as possible to prevent giving AZT in situations where it clearly is not warranted.
- If the HIV and HBV status of the source individual is unknown, then Concentra (or the VMC Occupational Health) in conjunction with client's primary care or attending physician if possible, will obtain the source individual's consent for testing and consent for release of those results. If the source individual refuses, staff should base the decision to recommend continued treatment with AZT on the above risk factors. However, the final decision should rest with the employee.

## 14.19.4 Appendix D: Medical Procedures

### Chemoprophylaxis (disease prevention) with AZT

- As general guidelines, use the recommendations for AZT prophylaxis by the United States Public Health Service/Centers for Disease Control (USPHS/CDC). If the employee decides to begin AZT prophylaxis, he or she should review and sign a consent form. In order to expedite treatment, it is reasonable to initiate the first doses of AZT without signing a formal consent provided the employee has received an explanation of the risks and oral consent has been obtained and documented. However, if the employee has not signed a formal consent prior to treatment he or she should do so either after the first dose is given or at the next follow-up visit (generally within 48-72 hours).
- The consent will include information regarding the levels of risk; description of the mechanics of the prophylaxis program; necessity for compliance with follow-up visits; information about short and long term potential toxicity of AZT; need to avoid conception and to abstain or practice "safe sex" while AZT is being taken. • AZT will be available at Concentra, the ER and/or other selected high risk areas approved by the Health Department. If treatment appears warranted and/or the employees requests, empirical prophylaxis will be prescribed. Dosages ranging from 200 mg. t.i.d. to 200 mg. five or six times a day for four to six weeks have been used. The treating physician may modify the dose at his or her discretion as new clinical information becomes available. The consent form should indicate the dosage.
- AZT should be given as soon as possible after the exposure. The first dose may be the most important one.
- Cost Incurred in Chemoprophylaxis: The employee's department will cover the cost of interim prophylaxis until Concentra (or VMC) clinicians have reviewed the case and determined whether prophylaxis is recommended, endorsed, or available based on the above guidelines. If Concentra (or VMC) provides AZT prophylaxis, Workers' Compensation will assume the cost of such treatment. In order to receive ongoing AZT

prophylaxis, the employee must consent to participate in the Concentra (or VMC) protocol for Occupational Exposure to HIV and hepatitis B. This protocol is based on the CDC guidelines for management of these exposures in health care workers.

### Whether or Not Employee Receives Prophylaxis

- Employees will be offered testing for HIV as soon as possible after a needle stick exposure. If the employee is initially seen in the ER, testing can wait until the employee is seen at Concentra (or VMC Occupational Health) the next working day. It is not necessary to obtain blood for HIV testing before initiating AZT prophylaxis. If the employee initially refuses testing, the client's blood drawn at that time for other testing will be stored for 90 days and can be tested until that time if the employee requests.
- If the employee agrees to testing and is initially HIV seronegative, re-test at the following intervals after exposure: a. Six weeks, b. Twelve weeks, and c. Six months. Tell the employee to report any illness to Concentra (or VMC Occupational Health) during the follow up period.
- If source individual cannot be identified, decisions regarding appropriate follow up should be individualized based on type of exposure and likelihood that the source individual was infected.

The County must offer appropriate post exposure prophylaxis in accordance with the latest recommendations of the United States Public Health Service and Centers for Disease Control guidelines.

Any employee whom the physician has determined to have sustained a significant HIV exposure will be managed according to protocols established by Concentra (or the VMC). Any employee covered by other Worker's Compensation carriers will either be treated or advised how to get treatment.

*NOTE: The documentation of all aspects of suspected HIV exposure, testing, recommendations, and*

## 14.19.4 Appendix D: Medical Procedures

*treatment must be kept in a separate locked confidential file.*

### **Medical records**

The Administration will maintain Concentra Screening Records in a confidential file.

Concentra shall establish and maintain for the duration of employment *plus 30 years* an accurate record for each employee with occupational exposure. 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.
- A copy of all results of examinations, medical testing, and follow up procedures as required.
- The employer's copy of the healthcare professional's written opinion as required above.
- A copy of the information provided to the health care professional as required above.

For purposes of maintaining confidentiality, US HealthWorks will maintain two types of medical records.

- 1) The "regular" medical record. This will include information limited to the hepatitis B status of the source individual and employee and whether hepatitis B vaccine is recommended and provided. If vaccination or treatment is recommended and the employee declines, this will be documented in this file. The HIV results will *not* be entered into the general medical record or general US HealthWorks record. The HIV results on source individuals will be kept confidential.
- 2) A separate part of the confidential medical file labeled "Do not disclose without written consent. The results of the source individual's and employee's HIV test results, whether AZT was prescribed, whether the employee has been offered HIV antibody testing, whether

the employee has consented to or declined testing, and other details of evaluation and therapy shall be documented on a separate progress note and kept in this file. All forms and laboratory test results and follow up progress notes relating to HIV exposure or infection will be kept in this file.

### Confidentiality

The employer shall ensure that employee medical records required above are kept confidential and are not disclosed or reported without the employee's expressed written consent to any person within or outside the work place except as required by this section or as may be required by law. Concentra records are kept separate and confidential and are only accessible to US HealthWorks or VMC clinicians.

## 14.19.5 Appendix E: Cal/OSHA Bloodborne Pathogens Standard Summary

# Cal/OSHA Bloodborne Pathogens Standard Summary

### *Scope and Application*

Covers all employees with occupational exposure to blood or other potentially infectious materials.

### *Exposure Control*

1. The employer must establish a written Exposure Control Plan, which must include an exposure determination, a plan/schedule for implementing specific portions of the standard and a procedure for evaluating an exposure incident.
2. The Plan should be accessible to employees, reviewed/updated at least annually and made available to Cal/OSHA.
3. The exposure determination will list those job classifications for which all employees have exposure and those for which some employees have exposure and the tasks and procedures of those employees.

### *Methods of Compliance*

1. Observe Universal Precautions with blood or other potentially infective materials. If differentiation is not possible, then treat all body fluids as potentially infective.
2. Examine and maintain engineering and work practice controls and, if exposure still remains, see that personal protective equipment is also used. Burden is on the employer to provide handwashing facilities and to see that handwashing rules are followed. Also to enforce rules about disposal of needles and sharps; eating in work areas; food storage; minimizing spraying/splashing of fluids; mouth pipetting; handling, storage and transporting of specimens; and decontamination of equipment.
3. Employer will provide personal protective equipment (gloves, gowns, lab coats, face shields, etc.), ensure that it is used, that it is readily accessible and provide for cleaning, repair and replacement. In particular, specific rules for glove use are detailed, along with

exceptions. Use of face protection and body clothing are also spelled out.

4. Implement housekeeping provisions, including a written schedule and methods of cleaning and decontaminating equipment and working surfaces.

Regulated waste provisions cover disposal of contaminated sharps and description and use of waste containers. Provisions also describe handling of other regulated wastes including labeling, color-coding and use of double containers.

Handle contaminated laundry as little as possible, bag where used and label and transport accordingly.

### *Hepatitis B Vaccination and Post-Exposure Follow-Up*

1. Vaccination
  - a. Employer will make hepatitis vaccine available at no cost to all employees who have occupational exposure; to be provided within 10 days of initial assignment (with certain stated exceptions).
  - b. Employee may initially decline and later accept, but if declines, must sign a Declination statement (provided).
  - c. Employer will provide booster doses if required.
2. Following an exposure incident, the employer will make available medical evaluation and follow-up. This paragraph provides for documentation of incident, source patient testing, employee testing, prophylaxis treatments, counseling and evaluation of illnesses.
3. Employer must see that the health care professional doing the vaccination and evaluating has received certain specified documentation.

## 14.19.5 Appendix E: Cal/OSHA Bloodborne Pathogens Standard Summary

4. Employer must obtain and provide employee with health care professional's written opinion within 15 days of evaluation. This report is limited to certain specific information.

### *Communication of Hazards to Employees*

1. Warning labels must be put on waste containers, refrigerators and other containers of blood or other regulated materials. Labels must contain the universal biohazard legend.
2. Biohazard signs, with additional specified information and specified color must be posted at the entrance to work areas of Research Labs and Production Facilities working with HIV and HBV.
3. Information and training provisions are very specific:
  - a. Training to be at no cost and during working hours.
  - b. At time of initial assignment; by April 8, 1993, at least annually thereafter and whenever tasks change.
  - c. The training must be appropriate in content and vocabulary to trainees and contain specified information including the contents of this standard. The trainer must be knowledgeable on the subject.

### *Research Labs and Production Facilities*

Does not apply to the County.

### *Recordkeeping*

1. The employer will maintain accurate medical records for each employee with occupational exposure.

The medical records include vaccination information, exams, testing and healthcare professional's written opinion. Medical records must be kept confidential and retained for the duration of employment plus 30 years.

2. Training records include the training, contents, names and qualifications of trainers

and names and job titles of attendees. These records must be kept for three years.

3. All records must be made available to the employee as well as to Cal/OSHA.
4. The Sharps Injury Log shall be maintained 5 years from the date the exposure incident occurred.
5. Records must be transferred in accordance with Title 8, section 5193, California Code of Regulations.

### *Dates*

1. Standard is effective January 8, 1993.
2. Complete the Exposure Control Plan by March 9, 1993.
3. Information/Training and Recordkeeping provisions must be in effect by April 8, 1993.
4. All other provisions (Engineering and Work Practice, Personal Protective Equipment; Housekeeping, HIV, HBV Research Labs and Production Facilities; hepatitis B Vaccination and Post-Exposure Evaluation/Follow-Up; and Labels and Signs) take effect May 8, 1993.

### *Appendix*

Hepatitis B Vaccine Declination (Mandatory)