BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN
Harris County, Texas

This Exposure Control Plan (ECP) is in accordance with Texas Health and Safety Code, Chapter 81, Subchapter H, and is analogous to the federal Occupational Safety and Health Administration (OSHA) Bloodborne Pathogens Standards, 29 CFR § 1910.1030.

I. PURPOSE

The purpose of this program is to establish a uniform system for addressing occupational exposures incurred by Harris County employees. By having a uniform program in place, pre-exposure training, post-exposure treatment, follow-up and recordkeeping would be easier to administer and track. In compliance with health codes, employees would be better protected as well and would be able to receive adequate testing, treatment, and information on exposures in a timely manner.

II. SCOPE

This Exposure Control Plan applies to all Harris County employees particularly to those in high risk occupations. This plan is intended to be a guideline for all county departments to follow. However, it may be necessary for certain departments to develop a more stringent protocol.

III. DEFINITIONS

Aerosolization - to cause a fine, solid or liquid particle to become suspended in a gas. (Water suspended in air - mist)

Amniotic Fluid - fluid found in the sac surrounding the fetus during pregnancy.

Assistant Secretary - the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood - human blood, human blood components, and products made from human blood or it components, to include animal blood.

Bloodborne Pathogens - pathogenic microorganisms that are present in human blood and can cause diseases in humans. These pathogens include, but are not limited to, hepatitis B virus (Hep B), hepatitis C virus, and human immunodeficiency virus (HIV).

CDC - Centers for Disease Control and Prevention, United States Department of Health and Human Services.

Communicable Disease –an illness that occurs through the transmission of an infectious agent or its toxic products from a reservoir to a susceptible host, either directly, as from an infected person or animal, or indirectly through an intermediate plant or animal host, a vector, or the inanimate environment.

Contaminated - the presence, or the reasonably anticipated presence, of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry - laundry that has been soiled with blood or other potentially infectious materials or may contain contaminated sharps.

Contaminated Sharps - any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, knives, broken glass, jagged metal, broken capillary tubes, and exposed ends of dental wires.

Decontamination - 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.

Discharge to Sanitary Sewer System – A discharge or flushing of waste into a sanitary sewer system which is done in accordance with provisions of local sewage discharge ordinances.

Emergency Care Provider – A licensed health care physician/professional who provides emergency care to Harris County employees.

Engineering Controls - controls (*e.g.*, sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protection and needle less systems) that isolate or remove the hazard of bloodborne pathogens from the workplace.

Exposure Incident - a specific exposure to the 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.

Grossly Contaminated Materials - materials soaked with a sufficient amount of blood that when squeezed or compacted, liquid blood will be released.

Handwashing Facilities – A facility that provides an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Hep B- Hepatitis B Virus (HBV) – A viral disease of the liver, transmitted through blood and blood products.

HIV - Human Immunodeficiency Virus.

Immersed – a process in which waste is submerged fully into a liquid chemical agent in a container, or that a sufficient volume of liquid chemical agent is poured over a contained waste, such that the liquid completely surrounds and covers the waste items in the container.

Licensed Healthcare Professional - a person whose legally permitted scope of practice allows him or her to independently perform the activities required by Post-exposure Evaluation and Follow-up.

Needle less systems - a device that does not use needles for:
(1) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) the administration of medication or fluids; or (3) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure - reasonably anticipated skin, eye, mucous membrane, or parenteral (piercing) contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. (Example: crime scene investigation, emergency care, *etc*.)

Other Potentially Infectious Materials (OPIM)

(1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, 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 but where it can be reasonably anticipated that blood may exist, to include animal blood.
(2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead).
(3) HIV-containing cell or tissue cultures, organ cultures, and HIV - or Hep B - containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV and Hep B.

Parenteral - piercing mucous membranes or the skin barrier through such events as needle sticks, human/animal bites, cuts, and abrasions.

Pericardial Fluid - fluid found in the fibrous sac surrounding the heart, to include animal blood.

Peritoneal Fluid - fluid found within the lining of the pelvic and abdominal cavities.

Personal Protective Equipment (PPE) - specialized clothing or equipment worn by an employee for protection against a hazard including, but not limited to, gloves, laboratory coats, faceshields, masks, and mouthpiece. 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.

Pleural Fluid - a clear fluid found in the pleural lining of the chest cavity.

Receiving Facility – that facility that initially receives the patient for treatment.

Regulated Waste - liquid or semi liquid 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 microbiological wastes containing blood or other potentially infectious materials.

Risk Management- Division of Harris County Human Resources and Risk Management.

Serostatus - the status of a person's blood regarding whether or not it is infectious.

Sharps – an object used or encountered normally in a health care setting that can be reasonably anticipated to penetrate the skin or any other part of the body and to result in an exposure incident, including a needle device, a scalpel, a lancet, a piece of broken glass, a broken capillary tube, an exposed end of a dental wire, or a dental knife, drill, or bur.

Sharps with engineered sharps injury protections - a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.Source Individual - any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; 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; arrestees; known IV drug users; and individuals from a known risk group.
Sterilize - the use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.

Supervisor – an administrative officer in charge of a unit or operation who supervises workers or the work done by others.

Synovial Fluid - a clear fluid found in the joints and other areas where friction exists.

Universal Precautions - an approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, Hep B, and other bloodborne pathogens.

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

IV. RESPONSIBILITIES

A. Supervisors

Supervisors are responsible for:

(1) Evaluating job descriptions and assigning employees to applicable risk categories when hired or when a new position is created.
(2) Assuring employees receive appropriate training.
(3) Assuring the use of universal precautions when dealing with human blood and other body fluids and all other appropriate measures for specimen collection.
(4) Contacting Risk Management if the employee is injured or believed to have been exposed to a potentially contaminated material.
(5) Investigating occupational exposure incidents and completing an Employer's First Report of Injury/ Illness (DWC1), and ensure the employee completes the accident statement.
(6) Referring employees for appropriate medical assessment and follow up in accordance with these procedures.
(7) Assuring employee compliance with these procedures.
(8) Ensuring completion of the contaminated sharps injury form to maintain a uniform reporting process, (Appendix 2) with results submitted to Risk Management.

B. Employees

All employees are responsible for:

(1) Assuming responsibility for their own health and safety.
(2) Observing universal precautions at all times.
(3) Using, cleaning, and storing personal protective equipment (PPE) appropriately.

(4) Decontaminating equipment prior to repair, service or shipment after contact with blood or other potentially infectious materials.
(5) Decontaminating their equipment including emergency vehicles after contact with blood or other potentially infectious materials.
(6) Reporting any actual or suspected occupational exposure incidents to their supervisor as soon as possible.
(7) Completing all applicable forms for occupational exposure incidents.
(8) Providing accurate information to appropriate personnel, when necessary.
(9) Attending training.
(10) Following all procedures pertaining to post exposure testing and follow-up testing as outlined in Section VIII (C).
(11) Complying with these procedures.
(12) Provide current job related medical records and vaccination status.
(13) Providing the treating healthcare facility with the sharps injury form (Appendix 2).
(14) Emergency and non-managerial employees shall annually review this plan to insure it remains current with all applicable regulatory agencies and updating risk categories as necessary.

C. Risk Management

Risk Management is responsible for:

(1) Assisting Department Managers and/or supervisors, to determine those job classifications where exposure to bloodborne pathogens are possible.
(2) Annually reviewing this plan to insure it remains current with all applicable regulatory agencies, and updating risk categories as necessary.
(3) Providing assistance, when appropriate, for the purchase of Personal Protective Equipment (PPE).
(4) Assisting with training as needed.
(5) Tracking post exposure testing to assure follow-up.
(6) Reporting all exposure incidents involving contaminated sharps.
(7) Maintaining training records.
(8) Maintaining a sharps injury database to include date of sharps incident, employee's name, date form sent to the HCPHES-Epidemiology.

V. EXPOSURE ASSESSMENT

It is the intent of this safety plan that all departments should on an ongoing basis assess and compile data about which employees may be expected to incur an occupational exposure to blood or other potentially infectious materials (OPIMs)

in the workplace. The exposure determination is made without regard to the use of personal protective equipment and should be reviewed annually.

VI. IMPLEMENTATION SCHEDULE AND METHODOLOGY

Harris County should implement this Bloodborne Exposure Control Plan effective immediately. Risk Management will initiate the training for all County departments effected by this plan and will provide annual updates as required by law. Initial training and annual updates will include methods of compliance and post exposure evaluation and follow up, communication of hazards to employees and recordkeeping in relation to Bloodborne Pathogens. Employees should receive training and personal protective equipment.

VII. METHODS OF COMPLIANCE

General

Universal/Standard precautions should be observed in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

A. Engineering Controls

(1) Engineering and work practice controls should be used to eliminate or minimize employee exposure.
(2) Where occupational exposure remains after institution of these controls, personal protective equipment should also be used.
(3) Engineering controls should be examined and maintained or replaced by each department on a regular schedule to ensure their effectiveness, in conjunction with an annual review.
(4) The term “Engineering Controls” includes all control measures that isolate or remove a bloodborne pathogen hazard from the work place encompassing not only engineered sharps injury protection and needless devices but also other medical devices designed to reduce the risk of percutaneous exposure.
(5) The following engineering controls should be used, where applicable:
    (a) Sharps containers
    (b) Needle less systems
    (c) Sharps devices with engineered sharps injury protection
(6) Sharps with Engineered Sharps Injury Protection are defined by OSHA as needle less device or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with built-in safety features mechanism that effectively reduces the risk of an

exposure incident. This broad array of devices include, but are not limited, to:

(a) Syringes with a sliding-sheath that shields the attached needle after use
(b) Needles that retract into the syringe after use
(c) Shielded or retracting catheters used to access the bloodstream for intravenous medication delivery systems or fluids or
(d) Catheter port or connector site using a needle housed in a protective covering

(7) Examples of other "Engineering Controls" are medical devices that include blunt suture needles and plastic or mylar-wrapped glass capillary tubes, as well as controls that are not medical devices such as sharps disposal containers and biosafety cabinets.

(8) Employees will select safer medical devices that are appropriate, commercially available, and effective. "Appropriate" devices will not jeopardize patient or employee safety or be medically contraindicated. Lists of commercially available Sharps Safety Devices may be researched in both the literature and on the Internet. Vendors of safety devices are encouraged to register their products with the Texas Department of State Health Services (TDSHS) Drugs and Devices Division and additionally to submit required product information to the TDSHS Contract lists. An "Effective" safer device is a device that, based on reasonable judgment, will make an exposure incident involving a contaminated sharp less likely to occur in the application in which it is used. Supervisors in areas where these engineering controls are used are responsible for ensuring that employees have been properly trained in their storage, use and disposal.

B. Personal Protective Equipment (PPE)

(1) Provision

(a) When there is the risk of occupational exposure, Harris County should provide or replace, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.
(b) Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials 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 the time that the PPE will be used.
(c) All PPE should be fluid resistant.
(d) PPE should be chosen based on the anticipated exposure to blood or other potentially infectious materials, however surgical caps or hoods and/or shoe covers or boots should be worn in instances when gross contamination can reasonably be anticipated.

(e) All PPE selected and used by emergency responders must meet the guidelines set forth in NFPA 1999.

(2) Use

(a) The employee's supervisor should ensure that the employee uses appropriate personal protective equipment unless the supervisor 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.

(b) When the employee makes this judgment, the circumstances should be investigated and documented by the supervisor in order to determine whether changes can be instituted to prevent such occurrences in the future.

(c) Supervisors are responsible for evaluating tasks for the applicability of PPE and for providing, requiring and monitoring its use.

(d) Supervisors are also responsible for ensuring that employees are trained on the proper use, storage and disposal of PPE.

(e) PPE should be utilized when conducting the following tasks:

(1) Drawing blood (gloves)
(2) Doing finger or heel sticks (gloves)
(3) Handling lab specimens (gloves)
(4) Bleeding control for spurting blood (gloves, gown, mask, protective eyewear)
(5) First Aid and CPR (gloves, pocket mask, and/or face shield)
(6) Cleaning contaminated tools/instruments (gloves, protective eyewear)
(7) Any other task involving occupational exposure
(8) List is not exhaustive

(f) Respiratory assistance devices shall be used whenever resuscitation must be performed.

(3) Accessibility

(a) The supervisor should ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees.

(b) 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.

(4) Cleaning, Laundering, and Disposal

(a) PPE should be cleaned, laundered, and disposed of at no cost to employees.

(b) All repairs and replacements to PPE should be done as needed to maintain its effectiveness and shall be made at no cost to employees.

(c)Equipment and supplies must be assessed periodically to determine replacement needs and document that these assessments have been made and supplies replaced. This documentation must include the dates of inspections and replacement and the name of the individual performing the task.

(d) All garments, which are penetrated by blood, body fluids containing visible amounts of blood, or other potentially infectious materials, should be removed immediately or as soon as feasible and placed in a red "biohazard" marked bag/container.

(e) All PPE should be removed prior to leaving the work area.

(f) When PPE is removed, it should be placed in the appropriate designated receptacle for storage, washing, decontamination or disposal.

(g) Gloves should be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes, when performing vascular access procedures and when handling or touching contaminated items or surfaces.

(h) Disposable (single use) gloves such as surgical or examination gloves should 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.

(i) Disposable (single use) gloves should not be washed or decontaminated for re-use.

(j) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. Utility gloves shall be discarded if they are cracked, peeling, torn, punctured, exhibit other signs of deterioration, or when their ability to function as a barrier is compromised.

(k) Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(l) 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.

(m)Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated.

(n) When an outside laundry service is used for employee uniforms, smocks, or lab coats, they should be notified of the potential for contaminated clothing, by the employee.

C. Work Practice Controls

(1) Hand Washing

(a) Hand washing facilities, which are readily accessible, should be provided to employees.

(b) When hand-washing facilities are not feasible, the supervisor should provide either an appropriate antiseptic hand cleaner in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleaners or towelettes are used, hands should be washed with soap and running potable water as soon as feasible.

(c) Supervisors are responsible for ensuring that employees wash their hands and any other potentially contaminated skin area with soap and water immediately or as soon as feasible after the removal of PPE and gloves.

(d) Supervisors should 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 body areas with blood or other potentially infectious materials.

(2) Bites/Bodily Fluid Exposures

(a) When possible, employees should avoid direct contact with saliva, tears, sweat, blood, urine, semen, feces or vomit.

(b) Bites should take the following actions:

(1) Apply appropriate first-aid.

(2) Notify your supervisor, complete the appropriate reports and seek medical attention.

(3) Sharps

(a) Contaminated needles and other contaminated sharps should be placed in sharps containers immediately after use.

(b) Needles and syringes must be discarded into the sharps container as a unit. They should not be separated from syringes by hand.

(c) Contaminated sharps should not be bent, recapped, removed, sheared or purposely broken. Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless Risk Management has determined that no alternative is feasible or that such action is required by a specific medical or dental procedure. If such action is required, then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique.

(d) Broken glassware should not be picked up by hand. Appropriate tools must be used.

(4) Contaminated Sharps/Materials Discarding and Containment

(a) Contaminated sharps should be discarded immediately or as soon as feasible after use into appropriate sharps containers.

(b) Containers should be closable, puncture resistant, leak proof on sides and bottom, and biohazard labeled or color-coded.
(c) Containers should be maintained upright throughout use and are not allowed to overfill (they shall be replaced when they are three-fourths full).
(d) Supervisors in each program area where sharps are used are responsible for ensuring that sharps containers are routinely replaced and that they are disposed of properly.
(e) All other contaminated materials such as towels, rags, disposable medical supplies and gloves, etc., will be disposed of in biohazard "red bag" containers.
    (1) These "red bags" will be placed in containers that have closeable lids.
    (2) These containers will be properly labeled in accordance with section X of this policy.

(5) Work Area Restrictions/Precautions

(a) In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees should not eat, drink, apply cosmetics or lip balm, smoke or handle contact lenses.
(b) Food and beverages should not be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present.
(c) Employees who have cuts on their hands and are preparing food must use food preparation gloves.
(d) All procedures involving blood or other potentially infectious materials should be conducted in a manner, which will minimize splashing, spraying, splattering, and generation of droplets of these substances.
(e) If circumstances are such that aerosolization may occur, a mask and goggles, or face shield must be worn.
(f) Mouth pipeting/suctioning of blood or other potentially infectious materials is prohibited.
(g) Eating and drinking are prohibited in areas that are contaminated with blood or other potentially infectious materials. Food and beverages should not be stored in the same refrigerator or container as blood or other potentially infectious materials.

(6) Collection of Specimens

(a) Specimens of blood or other potentially infectious materials should be placed in a container that prevents leakage during the collection, handling, processing, storage, transport, or shipping of the specimens.
(b) The container used for this purpose should be labeled with a biohazard label or color-coded and closed prior to being stored, transported or shipped.

(c) If outside contamination of the primary container occurs, the primary container should be placed within a secondary container that is puncture-resistant and prevents leakage during the handling, processing, storage, transport or shipping of the specimen.
(d) The secondary container should be puncture resistant and labeled with a biohazard label or color-coded.

(7) Cleaning Contaminated Equipment

(a) Equipment in need of repair, which becomes contaminated with blood or other potentially infectious materials should be examined prior to servicing or shipping and shall be decontaminated as necessary. All portions of contaminated equipment that remain shall be labeled with a biohazard label to inform employees, service representatives, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.
(b) Equipment (instruments or tools) should be disinfected in such a manner as to minimize manual contact prior to servicing or shipping, using a bleach solution or any disinfectant that is labeled as approved for such use by the EPA.
    (1) Heavy duty gloves and splash-goggles should be worn while you are cleaning instruments or tools.
    (2) Instruments or tools that may have been contaminated with visible blood should be transported to the cleaning area in a closed, leak-proof container. This container should allow the instruments and/or tools to be washed and drained without being handled while still contaminated.
(c) Employees should not place common instruments such as pens, penlights, stethoscopes, or other items in their mouths, because they may be contaminated.

D. Housekeeping

(1) General

(a) Employees should ensure that the worksite is maintained in a clean and sanitary condition.
(b) The supervisor should determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

(2) Equipment

(a) All equipment and environmental and working surfaces should be cleaned and decontaminated after contact with blood or other potentially infectious materials.

(1) All contaminated work surfaces should be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials, and at the end of the work shift if the surface may have become contaminated since the last cleaning.
(2) A bleach solution (1:10) or any disinfectant that is labeled as approved by the EPA for decontamination.
(3) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, should be removed and replaced as soon as feasible when they become contaminated or at the end of the work shift if they may have become contaminated during the shift.
(4) All bins, pails, cans and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials should be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.
(5) Broken glassware, which may be contaminated, should not be picked up directly with the hands. It should be cleaned up using mechanical means, such as a brush and dustpan, tongs, or forceps.
(6) Reusable sharps (i.e. surgical instruments that are sterilized and reused) that are contaminated with blood or other potentially infectious materials should not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(3) Vehicles

Emergency vehicles should be disinfected in such a manner as to minimize manual contact prior to servicing or shipping, using a bleach solution or any disinfectant that is labeled as approved by the EPA.

(4) Regulated Waste Disposal

(A) Contaminated Sharps Discarding and Containment

1. All contaminated sharps and regulated waste should be discarded immediately or as soon as feasible in containers that are:
   (a) losable;
   (b) puncture-resistant;
   (c) leak proof on sides and bottoms; andlabeled with a biohazard label or color-coded

(2) During use, containers for contaminated sharps should be:

(a) Easily accessible to employees and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found

(b) Maintained upright throughout use; and
(c) Replaced routinely and not be allowed to overfill

(3) When moving containers of contaminated sharps or regulated waste from the area of use, the containers shall be:
(a) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport or shipping;
(b) Placed in a second container if leakage is possible. The second container should be:
(1) Closable
(2) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and
(3) Labeled or color-coded

(4) Re-useable containers should not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(B) Other Regulated Waste Containment

(1) Regulated waste should be placed in containers which are:
(a) Closable
(b) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
(c) Labeled or color-coded
(d) Closed prior to removal to prevent spillage or protrusion of content during handling, storage, transport, or shipping

(2) If outside contamination of the regulated waste container occurs, it should be placed in a second container. The second container should be:
(a) Closable
(b) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
(c) Labeled or color-coded and
(d) Closed prior to removal to prevent spillage or protrusion of content during handling, storage, transport, or shipping

(C) Waste Disposal

Sharps containers and other containers described above shall be shipped off site for treatment and disposal by a third party in compliance with the Solid Waste Management Rules for Medical Waste Management, Disposal Transportation, Collection and Storage (Title 30, Texas Administrative Code, Chapter 330).

(5) Laundry

(a) Laundry contaminated with blood or other potentially infectious materials should be handled as little as possible with a minimum of agitation.

(a) Such laundry should be placed in appropriately marked bags or containers at the location where it was used. These bags or containers should be labeled with a biohazard label or color-coded.
(b) Such laundry should not be sorted or rinsed in the area of use.
(c) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry should be placed and transported in bags or containers, which prevent soak-through and/or leakage of fluids to the exterior.
(d) All employees who handle contaminated laundry should use protective gloves and other appropriate PPE to prevent contact with blood or other potentially infectious materials.
(e) All County departments should use the dry cleaning process to launder uniforms contaminated with visible blood.
(f) It will be the responsibility of each department to set up this service.
(g) Laundry that becomes contaminated with visible blood should not be taken home. This procedure does not apply to materials and clothing that come into contact with body fluids such as urine, feces, or vomitus, unless they contain visible blood.
(h) All outside sources providing laundry services should be notified of the potential for contaminated clothing.
(i) When a department ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the department generating the contaminated laundry must place such laundry in bags or containers which are labeled with a biohazard label or color-coded.

VIII. POST-EXPOSURE EVALUATION AND FOLLOW-UP

(A) General

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(1) Harris County should make available to all employees who have occupational exposure, a post-exposure evaluation and follow-up to an exposure incident.
(2) All medical evaluations and procedures including post-exposure evaluation and follow-up, including prophylaxis (initial drug treatment), are:
  (a) Made available at no cost to the employee;
  (b) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional and
  (c) Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place.

(B) Post-exposure Evaluation and Follow-Up

(1) An **exposure incident** is defined as:
A specific eye, mouth, or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious material which results from an employee performing their duties.

(2) Following a report of an exposure incident, the supervisor should make immediately available to the exposed employee a confidential medical evaluation and follow-up with the medical provider as designated by Harris County. The confidential medical evaluation and follow-up should include:

Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred must be obtained per the employee. Employees are required to complete:

Affidavit of Possible Exposure to Reportable Disease, (Appendix 1)

Exposure to Transporter Form (Appendix 3)

(a) Counseling; and

(b) Identification and documentation of the source individual, if known and/or allowed by state or local law as determined by the treating medical facility as designated by Harris County.

(1) The source individual's blood should be tested as soon as feasible and after consent is obtained by the treating medical facility in order to determine HBV, HIV and non-HIV (rabies) infectivity. If consent is not obtained it shall be established 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, should be tested and the results documented. (All of this information should be determined by the treating medical facility)

(2) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(3) Results of the source individual's testing should be made available to the exposed employee, and the employee should be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual (by the appropriate licensed healthcare professional).

(c) Collection and testing of blood for HBV and HIV serological status (to be determined and performed at the treating medical facility);

(1) The exposed employee's blood should be collected as soon as feasible and tested after consent is obtained. Tests for Harris County should include: HIV/HBV/HCV/RPR.

(2) If the employee consents to baseline (initial) blood collection, but does not give consent at that time for HIV serologic testing, the sample should 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 should be done as soon as feasible.

(d) Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

(e) Evaluation of reported illnesses.

(C) Information Provided to the Healthcare Professional

(1) The supervisor should ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(a) Copy of 29 CFR 1910.1030

(b) A description of the exposed employee's duties (job description and job physical requirements) as they relate to the exposure incident

(c) A completed Affidavit of Possible Exposure (Appendix 1)

(d) Results of the source individual's blood testing, if available.

(e) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the supervisor's responsibility to maintain.

(D) Healthcare Professional's Written Opinion

(1) **Post-exposure evaluation and Follow-Up** – written opinion should be limited to:

(a) That the employee has been informed of the results of the evaluation by the treating medical facility; and

(b) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment. (All other findings or diagnoses shall remain confidential and should not be included in the written report)

IX. HARRIS COUNTY REPORTING PROCEDURES FOR BLOODBORNE PATHOGEN EXPOSURE

(A) Healthcare Facilities

(a) Once the incident has been reported to the supervisor, the exposed employee should immediately report to the appropriate healthcare facility for a confidential medical evaluation, and initial (baseline) testing.

(b) Harris County's testing protocol should be at the initial (baseline) visit, with follow-up testing at 6 weeks, 3 months, 6 months, and

12 month intervals. The employee should be offered post exposure prophylaxis in accordance with the current recommendations of a licensed physician or licensed healthcare professional

(B) Forms

(1) When an exposure incident occurs, the supervisor should be immediately notified.
   (a) All supervisors and/or employees should complete the Affidavit of Possible Exposure form. (Appendix 1)
   (b) Employees **must also** complete the Exposure to Transporter Form. (Appendix 3)
   (c) The Exposure to Transporter Form and the Affidavit of Possible Exposure form must be left at the healthcare facility initiating the baseline testing.
   (d) For injuries involving the use of sharps, the Contaminated Sharps Injury Reporting Form, (see Appendix 2) must also be completed.
   (e) A copy of the Affidavit of Possible Exposure to Reportable Disease, Report of Possible Exposure to Transporter and if applicable, a copy of the Contaminated Sharps Injury Reporting Form must be submitted to Risk Management within 24 hours of the exposure.

(C) Workers' Compensation Benefits

(1) An employee may qualify for workers' compensation benefits for illness due to occupational exposure to pathogens. The employee and/or supervisor must complete the Employers First Report of Injury/Illness (DWC 1), an Accident Statement and the Affidavit of Possible Exposure forms.(Appendix 1)
(2) The employee must take the Affidavit of Possible Exposure, (Appendix 1) to the licensed healthcare professional to initiate the Post Exposure Protocol (Medical Evaluation and initial baseline testing).
(3) All original Employer's First Report of Injury/Illness (DWC-1), Accident Statements, Texas Workers' Compensation Work Status Report (DWC-73), carbon copies of the Exposure to Transporter and Affidavit of Possible Exposure forms must be forwarded to Risk Management within 24 hours of the exposure.

(D) Counseling

(1) The employee should be given appropriate counseling by the medical provider or the designated referral, concerning infection status, results and interpretations of tests, and precautions to take during the period

after the exposure incident. (This will be performed by the medical healthcare facility and healthcare professional.)

(2) The employee should also be informed about what potential illnesses can develop and to seek early medical evaluation and subsequent treatment. (This will be performed by the medical healthcare facility and healthcare professional.)

(E) Notification of Exposure

(1) Notifications to be made are as follows (by employee, if able, crew leader, etc.):
   (a) Immediate supervisor
   (b) Risk Management
   (c) In the event that a work related exposure incident happens during an off shift or week-end, make the appropriate notifications as mentioned above leave a message.

(2) If there are questions regarding the medical provider contact: Risk Management.

X. COMMUNICATION OF HAZARDS TO EMPLOYEES

(A) Labels

(1) Biohazard warning labels should be affixed to all containers or bags 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 including laundry.

(2) Labels are required to be a universal biohazard label and symbol printed in fluorescent orange or orange-red with a contrasting color for the lettering and symbol.

(3) Labels should be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

(4) Red bags or red containers may be substituted for labels.

(5) Labels required for contaminated equipment should be in accordance with the above requirements, and should also state which portions of the equipment remain contaminated.

(6) Regulated waste that has been decontaminated need not be labeled or color-coded.

(B) Information and Training

(1) The primary contact for training is the Risk Management Department.

(2) Supervisors should 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.
(3) Employees should receive training:
  (a) at the time of initial assignment to tasks where occupational exposure may take place;
  (b) within 90 days after the effective date of this plan; and
  (c) at least annually thereafter (training updates)
(4) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the plan, only training with respect to the provisions of the plan which were not included need be provided.
(5) Annual training for all employees should be provided within one year of their previous training.
(6) Additional training should be provided when changes such as 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.
(7) Training material content should be in a format that is appropriate for the department and appropriate in content and vocabulary to educational level, literacy, and language of employees.
(8) The person conducting the training should 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.
(9) Training should include at least the following information:
  (a) An accessible copy of OSHA Standard 29 CFR 1910.1030 and an explanation of its contents;
  (a) Chapter 96 – Bloodborne Pathogen Control;
  (c) A general explanation of the epidemiology and symptoms of bloodborne diseases;
  (d) An explanation of modes of transmission of bloodborne pathogens;
  (e) An explanation of the Harris County Exposure Control Plan and the means by which the employee can obtain a copy of the written plan;
  (f) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
  (a) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
  (a) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
  (a) An explanation of the basis for selection of personnel protective equipment;
  (a) 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;

(a) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(a) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(m) Information on the post-exposure evaluation and follow-up that the supervisor is required to provide for the employee following an exposure incident;

(n) An explanation of the signs and labels and/or color coding;

(o) An opportunity for interactive questions and answers with the person conducting the training session; and

(p) Employees should have the opportunity to discuss and ask questions during this training.

XI. RECORDKEEPING

(A) Training Records

(1) Records should include the following information:
   (a) The dates of the training sessions;
   (b) The contents or a summary of the training sessions;
   (c) The names and qualifications of persons conducting the training; and
   (d) The names and job titles of all persons attending the training sessions.

(2) Training records should be maintained for 3 years from the date on which the training occurred.

(B) Availability

(1) The Supervisor and/or Risk Management shall ensure that all records required to be maintained (employee training records) should be made available for examination and copying upon request to the Director of the National Institute for Occupational Safety and Health (OSH), U.S. Department of Health and Human Services, and the Assistant Secretary of Labor for OSH, or their designated representatives and as follows:.

(2) Access to records
   (a) Whenever an employee or employee's representative with written consent of the employee requests access to a record, the County should assure that access is provided in the reasonable time, place, and manner. If the County can not reasonably provide access to the record within 15 working days, the employer should within the 15

working days apprise the employee or employee's representative requesting the record of the reason for the delay and the earliest date when the record can be made available.

(b) The County may require of the requester only such information as should be readily known to the requester and which may be necessary to locate or identify the records being requested.

(c) Whenever an employee or/and employee's representative request sa copy of a record, the County should assure that either:
(1) A copy of the record may be provided with cost to the employee or employee's representative with prior review by the County Attorney's Office.
(2) The necessary mechanical copying facilities are made available without cost to the employee or the employee's representative.

(C) Sharps Injury Log

(1) A sharps injury log shall be established and maintained for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee (Appendix 2) and sent to Risk Management & HCPHES-Epidemiology.

(2) A chief administrative officer for each facility or the designee shall report the contaminated sharps injury to the Local Health Authority where the facility is located not later than ten working days after the end of the calendar months in which it occurred.

(D) Medical Record

(1) The following will be included in the employee occupational exposure file:

(b) Name and social security number of the employee;

(c) 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 vaccinations;

(d) A copy of all results of examinations, medical testing, and follow-up procedures;

(e) Employer's copy of the healthcare professional's written opinion (This information is contained in Appendix 1); and

(f) A copy of the information provided to the healthcare professional.

XII. ANNUAL REVIEW

A. Risk Management should review and make recommendations to update this plan:

(1) At least annually;
(2) Whenever necessary to reflect new or modified tasks and procedures;
(3) Revised employee positions with potential occupational exposure;
(4) Whenever necessary to reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
(5) Annually document consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

XIII. INDEX TO APPENDIX

References

- Texas Health and Safety Code § 81.304, Subchapter H, Bloodborne Pathogens Exposure Control Plan
- Texas Department of State Health Services (TDSHS) Bureau of Laboratories Exposure Control Plan
- Texas Administrative Code Title 25, Part 1, Chapter 96 & Title 30, Chapter 330
- Centers for Disease Control and Prevention
- Federal Register/Vol. 66, No. 12/Thursday, January 18, 2001 /Rules and Regulations. Department of Labor Occupational Safety and Health Administration 29 CFR Part 1910, Occupational Exposure to Bloodborne Pathogens; Needlesticks and other Sharps Injuries; Final Rule
- National Fire Protection Association (NFPA)
- Environmental Protection Agency (EPA)