

## **BLOOD AND BODY FLUIDS EXPOSURE CONTROL PLAN**

**1. PURPOSE:** To describe policy and procedures for preventing employee exposures to blood and body fluids, for guiding appropriate follow-up, for advancing engineering controls, defining roles in the selection of safety devices, and for monitoring the documentation of exposures and injuries in the OSHA 300 Log , Accident Review Workgroup or other appropriate formats.

### **2. POLICY:**

a. VA Central Iowa Health Care System (VACIHCS) is committed to providing a safe and healthful work environment for our entire staff. The following blood and body fluid Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Blood borne Pathogens" and the update of this Standard published in the Federal Register on January 18, 2001; 66(12): 5317-5325.

b. An exposure incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parental contact with blood or other potentially infectious materials that resulted from the performance of an employee's duties. An exposure to blood and body fluids will require the completion of an injury report using the Automated Surveillance Incident Safety and Tracking System (ASISTS) and an immediate evaluation by Employee Health M-F 7 am-4pm or Urgent Care 24/7 Des Moines or the nursing manager at CBOC locations:

c. Each Service Line Leader or his/her designee will evaluate the circumstance surrounding the exposure incident, identifying the root cause and ensure it is placed into ASISTS. Appropriate corrective actions will be taken to reduce or eliminate future incidences.

d. The Occupational Safety and Health Subcommittee (acting as the Accident Review Board) reviews individual incidents, performs trend analysis and makes appropriate recommendations for the prevention of exposure events.

e. Guidelines for treatment of exposures are contained in Post Exposure Prophylaxis for Health-Care Workers, Clinical Programs - 30.

### **3. ACTION:**

a. The Blood Borne Pathogens Standard applies to all facilities where occupational exposure to blood and other potentially infectious material is possible. This plan covers all employees who could be "reasonably anticipated" to come into contact with blood or other potentially infectious material as a result of performing their job duties.

b. In addition to blood, other infectious materials include:

- (1) Semen
- (2) Cerebrospinal fluid
- (3) Pleural fluid
- (4) Peritoneal fluid
- (5) Saliva in dental procedures
- (6) Any body fluid visibly contaminated with blood.
- (7) All body fluids where it is difficult or impossible to differentiate between body fluids.
- (8) 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 medicine or other solutions; and blood, organs and other tissues from experimental animals infected with HIV or HBV.
- (9) Vaginal Secretions
- (10) Synovial fluid
- (11) Pericardial fluid
- (12) Amniotic fluid
- (13) Research laboratories

c. Standard Precautions are to be used when caring for all patients. Standard Precautions define all body fluids and substances as infectious. This method incorporates not only fluids and materials of the Blood Borne Pathogen Standard, but expands coverage to include all body fluids and substances.

d. Authority and Responsibility:

(1) The Medical Center Director is responsible for:

(a) The legal and moral authority and responsibility for the implementation of a comprehensive Exposure Control Plan that meets Federal (OSHA) requirements.

(b) Providing financial support necessary for the specific services, equipment, and personnel required to maintain the Exposure Control Plan.

(c) Delegating authority and responsibility to the Infection Control Committee.

(2) Infection Control Committee is responsible for:

(a) The overall coordination of the plan, including review of all aspects of the plan prior to implementation.

(b) Reviewing all policies and procedures relating to the Exposure Control Plan, evaluating the effectiveness of the Plan and reporting findings and recommendations to Administration.

(c) Delegating authority to the Infection Control Coordinators.

(3) Infection Control Officer is responsible for:

(a) Assuring that the Exposure Control Plan is compatible with Federal, State, and Local requirements.

(b) Coordination of the development of all aspects of the Exposure Control Plan.

(c) Delegating specific responsibility to each Clinical Service Line Coordinator for the management of the Exposure Control Plan.

(4) Employee Health/Urgent Care Medical Officer of the Day is responsible for:

(a) Providing Hepatitis B Vaccinations to occupationally exposed employees, as well as at risk employees.

(b) Providing confidential medical evaluation of employee and source post exposure.

(c) Evaluating exposure and providing post-exposure follow-up, prophylaxis, as necessary and record keeping.

(d) Providing written post-exposure evaluations.

(5) Service Line Clinical Coordinator/Unit Nurse Manager is responsible for:

(a) The management of the Exposure Control Plan for their individual department or unit.

(b) Training, documentation of training, compliance, and follow-up of non-compliance.

(6) All Employees are responsible for: Strict adherence/compliance to all of the Exposure Control Plan after training is complete.

e. Exposure Determination:

(1) VACIHCS designates the following job classification in which all employees may have occupational exposure which includes physicians, residents, physician extenders (physician assistants and nurse practitioners), nursing personnel with direct patient care (registered nurses, licensed practical nurses, and nursing assistants), operating room personnel (registered nurses, licensed practical nurses), operating room technicians (transporters, nurse anesthetists), medical technicians (biomedical, cardiology, cardiac catheter lab, endoscopy, electro-cardiology), Physical/Occupational Therapy, volunteers as their job duties entail, students, therapists (respiratory), and personnel in Environmental Management/Laundry, Radiology/Nuclear Medicine, Laboratory, Dental, VA Police , Engineering, and Sterile Processing Services. This includes part-time, temporary, contract, fee basis, students and per diem employees serving in these capacities.

(2) In addition, any employee who feels he/she is at possible risk may be considered for exposure determination. Employee Health or Infection Control should assess an evaluation of the risks for exposure. These exposure determinations are made without regard to the use of personal protective equipment.

(3) Part-time, temporary, contract, Fee Basis, students and per diem employees are covered by the standard.

f. Methods of Compliance:

(1) The term Standard Precautions refers to a system of infection control, which assumes that every direct contact with all human blood and certain body fluids are to be treated as potentially infectious for HIV, HBV, HCV and other blood borne pathogens. This approach is intended to prevent parenteral, mucous membrane, and non-intact skin exposure of health care workers to blood borne pathogens.

(2) All health care workers shall routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any patient is anticipated.

(3) Gloves shall be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, for handling items or surfaces soiled with blood or body fluids, and for performing venipuncture or other vascular access procedures. Gloves shall be worn for all phlebotomies. Gloves shall be removed after contact and hand hygiene performed.

(4) Standard Precautions is a guideline for assisting hospitals in maintaining up-to-date isolation practices. It is designed to recognize the importance of all body fluids, secretions and excretions in the transmission of nosocomial pathogens. It is the basis for which Transmission-Based Precaution are founded: airborne, droplet, and contact routes of

transmission. Standard Precautions apply to *blood; all body fluids; secretions; and excretions except sweat; regardless of whether or not they contain blood; non-intact skin; and mucous membranes*. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infections in hospitals

g. Engineering Controls:

(1) Controls that isolate or remove the blood borne pathogens hazard from the workplace (e.g., sharps containers, self-sheathing needles and needleless systems) shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

(2) Engineering controls are instituted wherever and whenever practicable to eliminate or minimize employee exposure to blood or other potentially infectious materials. Engineering controls will be examined and maintained or repaired on a scheduled basis to ensure that they are functioning properly.

(3) Hand hygiene facilities will be readily accessible to employees and will be provided by the medical center. An antimicrobial soap, water and paper towels or an alcohol-based product will be available for hand hygiene in convenient locations. A lotion that is compatible with these will be provided in centralized locations on all patient care areas to help keep skin intact.

(a) Employees shall perform hand hygiene immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(b) Employees shall wash hands and any other skin with soap and water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials. No other agents such as Isopropyl Alcohol and antimicrobial wipes should be used to disinfect the exposed area.

(4) Sharps containers will be replaced as necessary and not overfilled (not to exceed  $\frac{3}{4}$  full) to prevent overfilling which may increase the risk of exposure events.

(5) Contaminated needles or other contaminated sharps shall not be recapped or removed unless the employee can demonstrate that no alternative is feasible or such action is required by a specific medical procedure. Sheering or breaking of contaminated needles is prohibited. Situations where recapping or removal of needles may be required:

(a) Dental: A stick guard is used with a one-handed scoop technique.

(b) Nuclear Medicine: One-handed scoop technique.

(c) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in containers which are puncture resistant, leak-proof on the sides and bottom and labeled as biohazard. Reusable sharps that are contaminated 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.

(6) The Infection Control Committee, Clinical Product Review Committee, and non-managerial staff will continually look for safer devices and evaluate them by employee trial and report findings of the trial to the Clinical Product Review Committee for further review, training and implementation. An ongoing evaluation of existing safer medical devices and new engineering controls on the market will be encouraged for user groups.

h. Safe Work Practices:

(1) Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a **risk of blood or body fluid exposure**. This includes clerk check-in desks, nurses' stations and work areas where patient and employee movement are not segregated as they are in designated break rooms.

(2) Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or bench-tops where blood or other potentially infectious materials are present.

(3) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(4) Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(5) Specimens of blood or other potentially infectious materials shall be placed in a container that prevents leakage during collection, handling, processing, storage, transport or shipping.

(6) The container for storage, transport, or shipping shall be labeled or color-coded and closed prior to being stored, transported, or shipped. When a facility utilizes Standard Precautions in the handling of all specimens, the labeling/color coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such containers remain within the facility. If outside contamination of the primary container occurs, the primary container shall be placed within a second container. If the specimen could puncture the primary container, the primary container shall be placed within a secondary container that is puncture resistant.

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

(a) A readily observable label of fluorescent orange or orange-red with lettering or symbols in a contrasting color shall be attached to the equipment stating which portions remain contaminated, prior to shipment to an outside facility.

(b) This information shall be conveyed to all affected employees, the servicing representative, and/or manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

(8) Blood and Body Fluid Spills per EMS protocol:

(a) An EPA approved germicide/disinfectant or a 1:10 dilution of sodium hydrochloride (bleach) must be used to disinfect the area after the spill is wiped. Maintain recommended contact (wet) time for the EPA approved germicide/disinfectant used. For carpeted areas, remove gross material and call EMS immediately for cleaning and disinfecting.

(b) Disposable cloths used to wipe the spills are discarded in regulated medical waste (red) containers if they contain 50 milliliters or more of blood or a body substance.

(c) Contaminated clothing of any kind should be removed as soon as possible and hospital laundered.

(d) Any equipment or items that are leaking or contaminated such as a leaking specimen container shall be placed in another leak proof container.

i. Personal Protective Equipment:

(1) When there is a risk of occupational exposure, appropriate personal 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 shall be provided at no cost to the employee. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious material to pass through to reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal condition of use and for the duration of time which the protective equipment will be used.

(2) The employee shall use appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have

prevented the delivery of health care or public safety services would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(3) Appropriate personal equipment in the appropriate sizes shall be readily accessible at the worksite or issued to employees. Hypoallergenic gloves, glove liners, powder less gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(4) The employer shall clean, launder, and dispose of personal protective equipment at no cost to the employee.

(5) The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(6) If a garment is penetrated by blood or other potentially infectious materials, the garment shall be removed immediately or as soon as feasible.

(7) All personal protective equipment shall be removed prior to leaving the work area.

(8) When personal protective equipment is removed, it shall be placed in the appropriately designated area or container for storage, washing, decontamination or disposal.

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

(a) Disposable (single use) gloves such as surgical or examination gloves shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

(b) Disposable (single use) gloves shall not be washed or decontaminated for reuse.

(c) Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeled, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(10) Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, shall be worn whenever splashes, spray,



spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(11) Appropriate protective clothing such as, but not limited to, gowns, aprons, and lab coats, clinic jackets, or other similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(12) Surgical caps or hoods and shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

(13) Any items that contain or are composed of blood or body fluids and are to be transported shall be placed in rigid, leak and spill proof containers for the period of transport.

j. Housekeeping: The worksite shall be maintained in a clean and sanitary condition. A written schedule for cleaning shall be determined and implemented with the 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.

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

(2) Contaminated work surfaces shall be decontaminated with an appropriate hospital approved 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 surfaces may have become contaminated since the last cleaning.

(3) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of work shift if they may have been 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 shall 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, shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dustpan, tongs, or forceps.

k. Regulated Medical Waste

(1) Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are closable, puncture resistant, leak-proof on sides and bottom, and labeled or color-coded to be identified as biohazard.

(2) During use, containers for contaminated sharps shall be; easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found, maintained upright throughout use, and replaced routinely and not be allowed to overfill.

(3) When moving containers of contaminated sharps from the area of use the containers shall be; closed to prevent spillage or protrusion of contents, placed in a secondary container if leakage is possible, constructed to contain all contents and prevent leakage, and labeled or color-coded to be identified as biohazard.

(4) Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose employees to the risk of percutaneous injury.

I. Other Regulated Medical Waste Containment:

(1) Regulated medical waste shall be placed in containers, which are closable, closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport or shipping, and labeled or color-coded to be identified as biohazard.

(2) If outside contamination of the regulated medical waste container occurs, it shall be placed in a second container.

(3) Disposal of all regulated medical waste shall be in accordance with applicable regulations of United States, and Territories, and political subdivision of States and Territories.

m. Laundry:

(1) All linen soiled shall be considered contaminated. Contaminated laundry shall be handled as little as possible with a minimum of agitation.

(2) Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use. Soiled linen will not be placed on the floor prior to disposition. Soiled linen will not be carried through the hallways to the soiled linen hamper or soiled utility room; the hamper will be brought to the soiled linen and transported in the hamper.

(3) Contaminated laundry shall be placed and transported in bags or containers which employees recognize as containers requiring compliance with Standard Precautions.

(4) VACIHICS consistently handles all laundry using Standard Precautions

(5) Whenever contaminated laundry is wet and presents a reasonable likelihood of soaking through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(6) Employees who have contact with contaminated laundry shall wear protective gloves and other appropriate personal protective equipment.

n. Compliance:

(1) All immediate supervisors are responsible for monitoring and enforcing compliance with the OSHA Blood Borne Pathogen Standard.

(2) If non-compliance is observed by others, the healthcare worker's supervisor shall be notified.

(3) The supervisor shall be responsible for immediate education or counseling or arranging for immediate education or counseling as to the appropriate barriers and behaviors.

(4) A record of the corrective action shall be made, signed by the health care worker and maintained.

(5) Employees who habitually and/or willfully fail to comply with the mandatory methods of compliance are subject to disciplinary action.

o. Communication of Hazards to Employees:

Labels:

(1) Warning labels shall be affixed to containers of regulated waste, refrigerators, and freezers containing blood or other potentially infectious material and other containers used to store, transport or ship blood or other potentially infectious material; **EXCEPT:**

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

(b) 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 labeling requirements.

(c) 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.

(d) Labels are not required for laundry bags or containers if the facility uses Standard Precautions for handling all laundry.

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

(2) Labels shall display the universal biohazard symbol and the signal word "BIOHAZARD" and shall be fluorescent orange or orange-red or predominantly so with lettering or symbols in a contrasting color.

(3) Labels are required for contaminated equipment; if only portions of the equipment remain contaminated, labels should state which portions.

p. Information and Training:

(1) Employers shall ensure that all employees with occupational exposure participate in a training program, which must be provided at no cost to the employee and during working hours.

(2) Training shall be provided as follows:

(a) At the time of initial assignment to tasks where occupational exposure may take place;

(b) At least annually thereafter.

(3) Annual training for all employees shall be provided within one year of their previous training.

(4) Additional training will be provided when changes such as modification of tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(5) Material appropriate in content and vocabulary to education level, literacy, and language of employees shall be used.

(6) The training program shall contain at a minimum the following elements:

(a) An accessible copy of the regulatory text of OSHA Blood Borne Pathogen Standard and an explanation of its contents;

(b) A general explanation of the epidemiology and symptoms of blood borne diseases;

- (c) An explanation of the modes of transmission of blood borne pathogens;
  - (d) An explanation of the exposure control plan and the means by which the employee can obtain a copy of the written plan;
  - (e) An explanation of the appropriate methods for recognizing tasks and other activities that may involved exposure to blood and other potentially infectious materials;
  - (f) 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.
  - (g) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
  - (h) An explanation of the basis for selection of person protective equipment;
  - (i) 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.
  - (j) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
  - (k) 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;
  - (l) Information on the post-exposure that the employer is required to provide for the employee following an exposure incident;
  - (m) An explanation of the signs and labels and/or color-coding required by the OSHA Blood Borne Pathogen Standard.
  - (n) An opportunity for interactive questions and answers with the person conducting the training session.
- (7) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the work place that the training will address.

q. Record Keeping:

- (1) Training records shall include the following information:

- (a) The dates of the training session;
- (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 shall be maintained for 3 years from the date on which the training occurred. Training records will be maintained in the Employees personnel folder.

r. Availability of Records:

(1) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to OSHA.

(2) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives and to OSHA.

(3) Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, and to OSHA.

(4) A copy of this Exposure Control Plan shall be accessible and readily available to each employee during the normal work shift. An electronic copy is readily accessible on the VACIHCS SharePoint site, and/or a hard copy will be provided (within 15 work days) to the employee upon request made to the Infection Control Coordinator.

s. Transfer of Records: The employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify OSHA, at least three months prior to their disposal and transmit them to OSHA, if required by OSHA, within that three month period.

t. Hepatitis B Vaccination and Post-Exposure Follow-Up: For related policies (Quality Management), refer to Post Exposure Prophylaxis, Hepatitis B Vaccination, and Post-Exposure Follow-Up.

(1) General:

(a) HBV vaccine prepared in yeast by recombinant DNA technology (Recombivax-HB) which produces an adequate antibody level (96% effective) in healthy adults.

(b) Primary vaccination requires a series of three intramuscular injections given in the deltoid at 0, 1, and 6 months. Reported side effects are rare, typically soreness at

the site of injection or mild systemic symptoms. Vaccination is safe and not contraindicated in pregnancy.

(c) Booster dose of vaccine is not currently recommended by CDC or by the U.S. Public Health Services.

(2) The Hepatitis B vaccine and vaccination series shall be available to all employees who have occupational exposure, as well as post exposure evaluation and follow-up.

(3) Testing after vaccination is recommended for health-care workers and public safety workers at high risk for continued percutaneous or mucosal exposure to blood or body fluids (e.g., acupuncturists, dentists, dental hygienists, emergency medical technicians, first responders, laboratory technologists/technicians, nurses, nurse practitioners, phlebotomists, physicians, physician assistants, and students entering these professions), to determine the need for revaccination and to guide postexposure prophylaxis. Testing should be performed 1-2 months after administration of the last dose of the vaccine series using a method that allows determination of a protective concentration of anti-HBs ( $\geq 10$  mIU/mL).

(a) Persons found to have anti-HBs concentrations of  $\geq 10$  mIU/mL after the primary vaccine series are considered to be immune.

(b) Persons found to have anti-HBs concentrations of  $< 10$  mIU/mL after the primary vaccine series should be revaccinated. Administration of 3 doses on an appropriate schedule followed by anti-HBs testing 1-2 months after the third dose, usually is more practical than serologic testing after 1 or more doses of vaccine.

(4) All medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis shall be:

(a) made available at no cost to the employee.

(b) made available to the employee at a reasonable time and place.

(c) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional.

(d) Provided according to recommendations of the United States Public Health Service current at the time these evaluations and procedures take place.

(5) Hepatitis B Vaccination: (Also see Summary Table attachment A).

(a) Made available after the employee has received education and within 10 working days of initial assignment to all employees who have potential for occupational exposure:

- 1) Unless the employee had previously received the complete Hepatitis B vaccination series
- 2) Antibody testing has revealed that the employee is immune, employee has had Hepatitis B infection, OR
- 3) The vaccine is contraindicated for medical reasons

(b) Prescreening is not conducted before receiving Hepatitis B vaccination.

(c) If the employee initially declines Hepatitis B vaccination, but at a later date while still covered under the standard decides to accept the vaccination, the Hepatitis B vaccination shall be made available at that time.

(d) Employees who decline the Hepatitis B vaccination shall sign a declination statement. (Attachment B).

(e) The mandatory statement for declination must be utilized for an employee who declines, reading as follows: I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccination at no charge to myself. However, I decline the vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

(6) If a routine booster dose of Hepatitis B vaccine is recommended by the U.S. Public Health Services at a future date, such booster doses shall be made available.

(7) Documentation of vaccination or refusal of the vaccine will be kept in the employee's medical record.

(8) Post Exposure Evaluation and Follow-Up for Hepatitis B Virus (HBV) and Human Immunodeficiency Virus:

(a) Exposure to HBV/HIV infection via parental (e.g., needle stick or cut) or mucous membrane (e.g., splash to eye or mouth) to blood or other body fluids, or cutaneous exposure involving large amounts of blood or prolonged contact with blood or other standard precautions designated fluid – especially when the exposed skin is chapped, abraded, or afflicted with dermatitis should be reported.



(b) Following a report of an exposure incident the VACIHCS shall make available to the exposed employee a confidential medical evaluation and follow-up including at least the following elements:

- 1) Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred.
- 2) Identification and documentation on the source individual unless it is established that identification is infeasible or prohibited by state or local law:
  - a) The source patient shall be informed of the incident and asked to consent to testing for serological evidence of HIV infection as soon as feasible. Blood for HIV/HBV/HCV serology shall be obtained. If consent is not obtained, the employee shall be advised that legally required consent cannot be obtained.
  - b) Source patient: order Hepatitis Panel, HIV antibody and HIV: source patient.
  - c) When the source individual is already known to be infected with HBV or HIV/HCV, testing of the source individual need not be repeated.
  - d) Results of the source individual's testing shall be made available to the exposed employee, but the identity of the source individual shall not be disclosed without the individual's express consent. The employee shall be informed of confidentiality laws and regulations concerning disclosure of the identity and infectious status of the source individual.
- 3) Collection and testing of blood for HBV, HCV, and HIV serological status:
  - a) The health care worker shall be counseled regarding the risk of infection and evaluated clinically and serologically for evidence of HIV infection as soon as possible after the exposure. Blood for HIV serology shall be drawn from the employee only after appropriate counseling and written informed consent have taken place. Health Care worker order Hepatitis panel, HIV antibody, HCV
  - b) If the employee declines the test after counseling, a written waiver shall be obtained. The health care worker shall be advised to report and seek medical evaluation for any acute febrile illness, particularly one characterized by fever, rash or lymphadenopathy that occurs within 12 weeks after the exposure to HIV infection.
  - c) If the source patient has AIDS, is positive for HIV antibody, or is not tested, or if the source patient is unknown, sero-negative health care workers should be retested at 6 weeks, 12 weeks, and 6 months after exposure to determine whether transmission has occurred.

d) Employee will have the option of testing at an anonymous site.

e) If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If within 90 days of the exposure incident the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(9) Post-exposure prophylaxis, when medically indicated, as recommended by the United Public Health Services:

(a) Accidental percutaneous (needle stick, laceration, or bite) or per mucosal (ocular or mucous membrane) exposure to blood, is treated as outlined below and in the summary table.

(b) For greatest effectiveness, passive prophylaxis with Hepatitis B Immune Globulin (HBIG), when indicated, should be given as soon as possible after exposure (its value beyond seven days after exposure is unclear).

(10) Source of exposure – HbsAg-positive:

(a) Exposed person has not been vaccinated or has not completed vaccination. Hepatitis B vaccination should be initiated. A single dose of HBIG (0.06ml/kg) should be given as soon as possible after exposure and within 24 hours, if possible. The first dose of Hepatitis B vaccine should be given intramuscularly at a separate site (deltoid for adults) and can be given simultaneously with HBIG or within seven days of exposure. Subsequent doses should be given as recommended for the specific vaccine. If the exposed person has begun but not completed vaccination, one dose of HBIG should be given immediately, and vaccination should be completed as scheduled.

(b) Exposed person has already been vaccinated against Hepatitis B, and anti-HBs response status is known: If the exposed person is known to have had adequate response in the past, the anti-HBs level should be tested unless an adequate level has been demonstrated within the last 24 months. Although current data show that vaccine-induced protection does not decrease as antibody level wanes, most experts consider the following approach to be prudent:

1) If anti-HBs level is adequate, no treatment is necessary.

2) If anti-HBs level is inadequate, a booster dose of Hepatitis B *vaccine and HBIG* should be given.

(c) If the exposed person is known not to have responded to the primary vaccine series, the exposed person should be given either a single dose of HBIG and a dose of

Hepatitis B vaccine as soon as possible after exposed, or two doses of HBIG (0.06 ml/kg), one given as soon as possible after exposure and the second one a month later. The latter treatment is preferred for those who have failed to respond to at least four doses of vaccine.

(d) Exposed person has already been vaccinated against Hepatitis B, and the anti-HBs response is unknown, the exposed person should be tested for anti HBs if:

1) The exposed person has adequate antibody, no additional treatment is necessary.

2) The exposed person has inadequate antibody on testing, one dose of HBIG (0.06 ml/kg) should be given immediately and a standard booster dose of vaccine given at a different site.

(e) Source of exposure known and HbsAg negative:

1) Exposed person had not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of Hepatitis B vaccine within seven days of exposure, and vaccination should be completed as recommended. If the exposed person has not completed vaccination, vaccination should be completed as scheduled.

2) Exposed person has already been vaccinated against Hepatitis. No treatment is necessary.

(f) Source of exposure unknown or not available for testing:

1) Exposed person has not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of Hepatitis B vaccine within seven days of exposure, and vaccination should be completed as recommended. If the exposed person has not completed vaccination, vaccination should be completed as scheduled.

2) Exposed person has already been vaccinated against Hepatitis B, and anti-HBs response status is known:

a) If the exposed person is known to have had adequate response in the past, no treatment is necessary.

b) If the exposed person is known not to have responded to the vaccine, prophylaxis as described earlier under "Source of exposure HbsAG-positive" may be considered if the source of the exposure is known to be at high risk of HBV infection.

(g) Exposed person has already been vaccinated against Hepatitis B, and the anti-HBs response is unknown. The exposed person should be tested for anti-HBs.

1) If the exposed person has adequate anti-HBs, no treatment is necessary.

2) If the exposed person has inadequate anti-HBs, a standard booster dose of vaccine should be given.

u. Employee Health:

(1) The health care professional responsible for the employees Hepatitis B vaccination is provided a copy of this policy.

(2) The health care professional evaluating an employee is provided the following information:

(a) An accessible copy of the regulatory text of OSHA Blood Borne Pathogen Standards and an explanation of its contents.

(b) A description of the exposure and employee's duties as they relate to the exposure incident.

(c) Documentation of the routes of exposure and circumstances under which it occurred.

(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 maintained in Employee Health.

v. Health Care Professionals Written Opinion:

(1) The Employee Health Office shall provide the employee with a copy of the evaluating health care professional's written opinion within fifteen days of the completion of the evaluation.

(a) The health care professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(b) The health care professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

1) That the employee has been informed of the results of the evaluation.

- 2) That the employee has been told about any medical condition resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

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

#### **4. REFERENCES:**

- a. CDC: Guidelines for Hand Hygiene in Healthcare Settings, 2002. (HICPAC, SHEA, APIC, IDSA) [www.cdc.gov/handhygiene/](http://www.cdc.gov/handhygiene/)
- b. Federal Register: Department of Labor/Occupational Safety and Health Administration, 29 CFR 1910.1030, "Blood borne Pathogens," dated July 1, 1997 and Update published January 18, 2001; 66(12):5317-5325.  
[www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=10051](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051)
- c. OSHA's Directive CPL 2-2.69. "Enforcement Procedures for the Occupational Exposures to Blood borne Pathogens," dated November 27, 2001.  
[www.osha.gov/oshaweb/owadisp.show\\_document?p\\_table=DIRECTIVES&p\\_id=2570](http://www.osha.gov/oshaweb/owadisp.show_document?p_table=DIRECTIVES&p_id=2570)
- d. OSHA: Exposure to Blood borne Pathogens, Needlestick and other Sharps Injuries—Final Rule 66:5317-5325, January 18, 2001.  
[www.osha.gov/oshaweb/owadisp.show\\_document?p\\_table=FEDERAL\\_REGISTER&p\\_id=16265](http://www.osha.gov/oshaweb/owadisp.show_document?p_table=FEDERAL_REGISTER&p_id=16265)
- e. Infection Control- "Standard and Transmission Based (Isolation) Precautions."
- f. Patient Care -53 "[Hand Hygiene](#) Practices." .
- g. Clinical 30- "[Post Exposure Prophylaxis for Health-Care Workers](#) ."
- h. A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States  
[http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5516a1.htm?s\\_cid=rr5516a1\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5516a1.htm?s_cid=rr5516a1_e)
- i. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis  
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>
- 5. RESCISSION:** Patient Care-47, "Blood and Body Fluids Exposure Control Plan," December 2010.

**6. REVIEW AND RESPONSIBILITY:** The Infection Control Committee as directed by the Infection Control Officer is responsible for the content of this policy which will be reviewed annually and reissued on or before March 5, 2017.

JUDITH JOHNSON-MEKOTA, FACHE  
Director

ATTACHMENTS:  
A – Summary Table  
B – Hepatitis B Vaccination Declination

DISTRIBUTION: VACIHCS Policies SharePoint site

**Attachment A**

**SUMMARY TABLE**

**Recommended post-exposure prophylaxis for percutaneous or Peri mucosal exposure to Hepatitis B Virus, United States:**

	<b>Treatment</b>	<b>When Source is</b>	
Vaccination & anti-body response status of exposed person	HbsAG* Positive		Source not tested or status unknown
Unvaccinated	HBIG <sup>↑</sup> x1; Initiate HB vaccine series●	Initiate HB vaccine series	Initiate HB vaccine series
Previously vaccinated: Known responder	No treatment	No treatment	No treatment
Known non-responder	HBIG x2 or HBIG x1 & initiate revaccination	No treatment	If known high-risk source, treat as if source were HbsAg positive
Anti-body response unknown	Test exposed person for anti-HBs** 1. If adequate $\Delta$ , no treatment 2. If inadequate $\Delta$ , HBIG x1 & vaccine booster	No treatment	Test exposed person for anti-HBs 1. If adequate $\Delta$ , no treatment 2. If inadequate $\Delta$ , initiate revaccination

**\*Hepatitis B surface antigen**

**<sup>↑</sup>Hepatitis B immune globulin; dose 0.06 mL/kg intramuscularly**

**●Hepatitis B vaccine**

**$\Delta$ Responder is defined as a person with adequate levels of serum anti-body to Hepatitis B surface antigen (i.e., anti-HBs  $\geq$  10 mIU/ml); Inadequate response to vaccination defined as serum anti-HBS  $\leq$  10 mIU/mL**

**\*\*Antibody to Hepatitis B surface antigen**

**Attachment B**

**VA CENTRAL IOWA HEALTH CARE SYSTEM**

**HEPATITIS B VACCINATION DECLINATION (MANDATORY)**

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

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**Signature**

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**Date**

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**Witness**