# Policies & Procedures

**Article: 4.1**

**Effective Date: 08/30/2012**

**Revised Date:**

## EXPOSURE CONTROL PROGRAM

**PURPOSE**

To provide a comprehensive Valencia County Emergency Services Blood Borne Pathogens (BBP) and Air Borne Pathogens (ABP) control system for preventing illness and death from occupational exposure to communicable diseases or other potentially infectious materials. Among theses risks are Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).

**POLICY**

Valencia County Emergency Services recognizes that communicable disease exposure is an occupational health hazard. Communicable disease transmission is possible during any aspect of emergency response, including in-station operations. The health and welfare of each member is a joint concern of the member, the chain of command, and this department. While each member is ultimately responsible for his/her own health, the department recognizes a responsibility to provide all members with the best available protection from occupationally acquired communicable disease. To assist in this endeavor, an employee's health status shall be reviewed as specified by the provisions of Policy & Procedure, "Medical Evaluation".

It is the policy of the Valencia County Fire and Rescue Department:

To provide fire, rescue, inspection, investigation, education, and emergency medical services to the public without regard to known or suspected diagnosis of communicable disease in any patient.

To regard all patient contacts as potentially infectious. Universal Precautions shall be observed at all times and shall be expanded to include all body fluids and other potentially infectious material (body substance isolation) as needed or required.

To provide all members with the necessary training, immunizations, and personal protective equipment (PPE) necessary for protection from communicable diseases.

To encourage participation in Employee Assistance Program (EAP) and/or Critical Incident Stress Debriefing (CISD) programs.

To prohibit discrimination of any member for health reasons, including infection and/or seroconversion with HIV or HBV virus.

To regard all medical information as strictly confidential. No member's health information will be released without the signed written consent of the member.

**PROCEDURE**

I. Exposure Determination

A. The following tasks are reasonably anticipated to involve exposure to blood, body fluids, or other potentially infectious materials:

1. Provisions of emergency medical care to injured or ill victims.
2. Rescue of victims from hostile environments, including burning structures, water contaminated areas, or oxygen deficient atmospheres.
3. Extrication of persons from vehicles, machinery, or collapsed excavations or structures.
4. Recovery and/or removal of bodies from any situation cited above.

5. Response to hazardous material emergencies, both transportation and fixed site, involving potentially infectious substances.

B. The following job positions within this department are reasonably anticipated to involve exposure to blood, body fluids, or other potentially infectious substances in the performance of their duties both volunteer and paid.

1. Firefighters
2. Paramedics
3. Lieutenants
4. Captains
5. Asst. Chiefs
6. District Fire Chiefs
7. Deputy Fire Chiefs
8. County Fire Chief

II. Roles and Responsibilities

A. Chief Officers and Company Officers shall:

1. Support and enforce compliance with the Infection Control Program.
2. Correct any unsafe acts and refer members for remedial infection control training as required.
3. Refer for medical evaluation any member possibly unfit for work, for infection control or any other reasons.
4. The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

a) Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

b) Document, annually, consideration and implementation of appropriate available and effective medical devices designed to eliminate or minimze occupational exposure.

c) Solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls, and to document the solicitation in the Exposure Control Plan.

B. Training shall:

1. Be responsible for the development of an infection control education program that complies with OSHA Regulation, 29 CFR 1910.1030.

a) Technical assistance may be provided through various state and local agencies, as well as through Valencia County Risk Management Department.

2. Assure that persons conducting infection control training be knowledgeable in all aspects of program elements as they relate to emergency services provided by this department.
3. Assure that all members complete an initial training session on Blood Borne/Air borne pathogens at the time of orientation. Annual refresher training shall be required thereafter and as new changes occur.

4. Maintain training records according to OSHA requirements of three years after the date on which the training occurs. These records shall include:

   a) The dates of training sessions.

   b) The contents or summary of training conducted.

   c) The names and qualifications of persons conducting the training.

   d) The names, ID numbers and job titles of all persons attending the training session.

C. EMS Division shall:

1. Serve as the department's Designated Officer (DO) as required by the "Ryan White Comprehensive AIDS Resource Act of 1990" Public Law 101-381.
2. Develop and implement a post-exposure program.
3. Provide technical assistance and guidance for infection control training.
4. Maintain confidentiality of all medical and exposure records as required by OSHA regulations; Part 29 CFR 1910.1030 and 29 CFR 1913.20.
5. Provide follow-up information as necessary for incidents involving exposure to blood, body fluids, or other potentially infectious materials.
6. Develop criteria for the purchase of infection control personal protective equipment to include needleless systems in accordance with OSHA Directive CPL 2-2.44D and the Needlestick Prevention Act and determine adequate stocking levels for each station and response apparatus.
7. Evaluate possible member exposures to communicable diseases and coordinate communications between the department and Risk Management Department.
8. Collect and maintain data relating to quality assurance of the department's infection control program.
9. Conduct inspections of on-scene and station operations to ensure compliance with this policy and local, state, and federal regulations.
10. Keep abreast of new developments in the field of infection control and provide appropriate recommendations to department officers.
11. Document all percutaneous injuries.

D. All members shall:

1. Assume ultimate responsibility for their own health and safety.
2. Always use and promote the use of proper personal protective equipment as the situation dictates.
3. Immediately report any contact with suspected occupationally acquired communicable diseases and/or exposure incidents to their supervisor.
4. Comply with the training requirements contained within this Policy & Procedure.

III. Training

A. All members shall be be in compliance with OSHA Regulation, 29 CFR Part 1910.1030; Occupational Exposure to Blood Borne Pathogen and guided by NFPA Standard 1581; Fire Department Infection Control Programs. This instruction shall include:

1. An accessible copy of the OSHA Regulation.
2. A general explanation of the epidemiology and symptoms of bloodborne and airborne diseases.
3. An explanation of the modes of transmission of blood borne and air borne pathogens.
4. An explanation of the department's infection control program.
5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood or other potentially infectious materials.
6. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment.
7. Information on the Hepatitis B Virus and immunization benefits.
8. An explanation of the reporting process to follow for any occupational exposures to blood or other potentially infectious materials and post-exposure follow up.
9. An explanation of the signs and labels and/or color coding required for biohazard materials; information on the proper storage and disposal of regulated medical waste.

IV. Storage

A. Each station shall be supplied with adequate storage facilities.

B. Stations shall be supplied with appropriate containers for storage of contaminated materials.

C. Clean equipment shall be kept separate from that which may be contaminated.

D. Under no circumstances should contaminated equipment be cleaned in areas such as kitchens or living areas.

E. Infectious waste storage areas shall be identified with BIOHAZARD signs and shall be maintained in accordance with OSHA , EPA, and local or state regulations.

F. Contaminated materials shall be stored in leak proof bags with appropriate labeling and color-coding.

G. If outside contamination of disposal bags is possible, a second bag with identical markings should be placed over the first.

H. Contaminated sharps shall be stored in closed puncture-resistant containers with proper labeling and color-coding.

I. Materials which may be contaminated shall be placed into properly labeled (BIOHAZARD) containers of which shall be stored into areas identified with proper (BIOHAZARD) labels per OSHA, EPA, and local or state regulations.

V. Decontamination:

A. Stations will be supplied with appropriate disinfecting solutions.

B. Material Safety Data Sheets (MSDS) for cleaning and disinfecting solutions shall also be provided.

C. Personnel shall be familiar with these solutions as well as the recommended personal protective equipment utilized during the decontamination process.

VI. Disposal:

A. Contaminated items, which are considered regulated medical waste, shall be placed into proper disposal containers supplied by this department.

B. All members shall ensure that waste products are placed into the proper containers.

C. All members shall recover items which may be used at incidents (i.e., syringes, needles, I.V. sets, etc.) and dispose of them in the prescribed manner.

D. Bio-Hazard waste pickup is handled through the current vendor.

VII. Personal Protective Equipment

Refer to Policy and Procedure "Protective Clothing & Equipment".

VIII. Scene Operations

A. The following procedures are for on scene operation and are to be followed by members of this Department as they apply to the management of situations where contact with blood or other potentially infectious materials may be present. Members should take into consideration the following points for safe emergency scene operations, thereby reducing opportunity for occupational exposure to blood and/or airborne disease:

1. The blood, body fluids, and tissues of all patients are considered potentially infectious, and universal precautions/body substance isolation procedures shall be used for all patient contact.

2. While complete control of the emergency scene is not possible, scene operations as much as possible, shall attempt to limit splashing, spraying, or aerosolization of body fluids.

3. The minimum number of persons required to complete the task safely shall be used for all scene operations. Members not immediately needed shall remain a safe distance from operations, where communicable disease exposure is possible or anticipated.

4. Hand washing is most important in reducing disease transmission. Members shall wash hands following: removal of PPE, patient contact, handling potentially infectious materials, cleaning, disinfecting, or decontaminating equipment, using the bathroom, before and after preparing food.

5. Eating, drinking, smoking, handling contact lenses, or applying cosmetic or lip balm is prohibited at the scene of emergency operations, during operations or in the hot zone.

6. Used needles and other sharps shall be disposed of in approved sharps containers. Needles shall not be recapped, resheathed, bent, broken, separated from disposable syringes, stuck into a mattress, seat, or pillow. The most common occupational blood exposure occurs when needles are recapped.

7. Sharps containers shall be easily accessible for scene operations.

8. Disposable resuscitation equipment (i.e., BVM masks) shall be utilized whenever possible.

9. Personal protective equipment shall be removed following completion of tasks and placed into leak-proof bags, color-coded and marked as biohazard, and transported back to the station for proper disposal or decontamination if they are deemed to have been contaminated by the Incident Commander.

10. The public should be reassured that infection control personal protective equipment is used as a matter of routine practice for the protection of all members and the patients that they treat. The use of personal protective equipment does not imply that a given patient or member may have a communicable disease.

11. Patient confidentiality shall be maintained at all times. Members shall release medical information only to those persons authorized to receive such information. Queries from other agencies or the media shall be referred to the EMS Division.

12. At the conclusion of scene operations, all potentially contaminated patient care equipment shall be removed for appropriate disposal or decontamination.

13. Table 1 shows examples of mandatory personal protective equipment for the protection against HIV and HBV transmission in the pre-hospital setting:

| Task: | Gloves | Gown | Mask | Eye shield | Sleeves |
|---|---|---|---|---|---|
| Bleeding Control "Spurting blood" | X | | X | X | X |
| Bleeding Control "Minimal bleeding" | X | | | | |
| Emergency Childbirth | X | X | X | X | |
| Venipuncture | X | | | | |
| Intubation | X | | X | X | X |
| Suctioning | X | | X | X | X |
| Handling/cleaning Contaminated items | X | X | | X | |
| Assesment | X | | | | |
| Injection Administration | X | | | | |

**Table 1**

IX. Post Response Procedures

A. The following requirements are to be followed by all personnel and shall be monitored for compliance:

1. Upon returning to stations, members shall remove all contaminated equipment and replenish supplies as needed.

2. Contaminated equipment shall be stored and/or cleaned in areas designated for such work, i.e., sinks, and cabinets. Kitchens, restrooms, laundries, and other such work areas shall not be used as decontamination areas.

3. Disposable equipment and other biohazard waste generated during on-scene operations shall be stored in special biohazard leak-proof bags and/or properly labeled containers. No contaminated waste shall be placed into station waste containers designated for normal household waste.
4. Disinfecting shall be performed with a department issued/approved agent or with a 1:20 solution of bleach in water. All disinfectants shall be tuberculocidal and EPA approved and registered.
5. Any equipment, which has been damaged, must be cleaned and disinfected before being sent for repair.
6. Equipment such as backboards, splints, MAST pants shall be washed with hot soapy water, rinsed with clean water, and disinfected with an approved agent. Equipment shall be air-dried.
7. Delicate equipment (radios, cardiac monitors, etc.) shall be wiped clean of any debris using a moist cloth containing hot soapy water, wiped with another cloth containing clean water, then wiped with an approved disinfecting agent and air dried.
8. All other work surfaces shall be decontaminated with an approved disinfecting agent. Seats on response vehicles contaminated with body fluids shall be disinfected upon return to quarters.
9. Infectious wastes generated through the cleaning process shall be properly disposed of in biohazard, color-coded bags and/or containers.
10. Contaminated boots, helmets and structural firefighting gloves shall be brush scrubbed with a hot soapy water solution and then rinsed with clean water, and allowed to dry.
11. The following illustrates the necessary steps to clean bunker gear and uniforms contaminated with potentially infectious waste in accordance with CFR 1910.1030

    a) Contaminated structural firefighting gear/uniforms should be placed in a biohazard bag and tagged with the employee's name and date.

    b) Notify the District Fire Chief of the incident and inform him/her of the article of clothing that was contaminated.

    c) In any incidents where the member feels they may have been contaminated, it is suggested that the member shower and don a replacement uniform and follow the procedures for reporting a suspected blood borne exposure.

    d) If a set of bunker gear has been contaminated the District Fire Chief needs to obtain a spare set of bunkers from inventory and deliver to the individual.

    e) The District Fire Chief shall then pick up the contaminated clothing and/or bunker gear for cleaning service.

    f) Bunker gear shall be cleaned according to the manufacturer's guidelines found on attached labels. The bunker gear shall be properly cleaned by the County's contracted laundry for biohazard.

X. Procedures for reporting a suspected blood borne exposure

A. The member shall:

1. Immediately contact his/her Supervisor.
2. Completely fill out all necessary paperwork including:

    a) Initial report of accident, Supervisor and Employees Accident Report, Infectious Disease Exposure Report.

B. The Supervisor shall:

1. Contact the Deputy Chief - EMS.

2. Assure that all paperwork is completed.

C. The Deputy Chief - EMS/DO shall:

1. Make a determination of the exposure based upon the member's contact with the patients/victims body fluids:

a) An exposure is defined when a member has had a needle puncture, open skin contact with the patients body fluids or mucosal contact with the patients body fluids.

b) If it has been determined that an exposure has occurred, the employee shall receive a confidential medical evaluation by the County's Contracted Physician or, if it is after normal working hours, the contracted ER. The following elements shall be a part of the evaluation:

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

(2) Identification and documentation of the source individual when feasible.

(3) Voluntary collection and testing of blood for HIV and HBV serological status may be requested for the source patient; however the exposed member must also agree to HIV testing.

(a) Any lab work indicated, may be obtained at the County's Designated Physician or at the contracted health care facility if the exposure occurs after the normal business hours of the County's Designated Physician.

(b) In order to maintain confidentiality and appropriate post-test counseling. Lab results shall be released to the DO and qualified medical providers at the exposed members written consent.

(c) Results of the HIV testing will not be filed with the ER record for either the source patient or exposed member.

(4) If the source is unknown, the type of exposure should be thoroughly reviewed and the significance documented, as follow-up care is crucial in all situations.

(5) Post-exposure prophylaxis when medically indicated, if wanted.

(6) Counseling, if wanted.

(7) Evaluation of reported illnesses.

2. Contact the Risk Management Workers Compensation Specialist as soon as possible.

3. The DO shall obtain and provide to the affected member a copy of the evaluating health care professional's written opinion within 15 days of the completion of the evaluation.

4. The DO shall follow all state and Federal reporting guidelines.

XI. Airborne exposure to infectious disease:

A. When a diagnosis of airborne communicable disease is established in a patient that was transported by a pre-hospital care provider, the receiving hospital's DO will notify the department's DO within 48 hours of the determination of the communicable disease status. (Refer to the enclosed list of airborne communicable diseases).

B. The Department's DO shall notify the exposed member(s) and initiate department policy for exposure incidents.

C. In the event that the department's DO is notified prior to the receiving hospital's DO or ER staff, he/she will notify the receiving hospital. The receiving hospital's DO will document notification of involved services.

D. The exposure must be immediately reported to the Department's DO or his/her designee.

E. Airborne Communicable Diseases: (requiring airborne precautions)

1. Measles
2. Meningitis – hemophilus influenza, known or suspected meningococcal
3. Mumps
4. Pertussis
5. Rabies
6. Rubella (German Measles)
7. Tuberculosis
8. Varicella ( Chicken Pox)

XII. Early Identification of Individuals with Active Tuberculosis

A. Symptoms consistent with active TB infection:

- Fever
- Night Sweats
- Lethargy/weakness
- Weight loss
- Loss of Appetite
- Sputum-producing cough
- Coughing up blood

B. Medical Surveillance Program

1. Medical surveillance program for members at risk for exposure to TB evaluation, administration and interpretation of TB mantoux skin test as follows:

   a) Initial baseline screening at time of employment and/or prior to placement in a high-risk position.

   b) After initial baseline screening, members will be screened during their OSHA 202 physical exam (yearly or otherwise based on member's age).

2. Evaluation and management of members with a positive skin test or with a history of a positive skin test who are exhibiting symptoms of TB infection will be handled by the County's Designated Physician.

C. Engineering/Work Practice Controls

1. The following engineering/work practice controls are recommended to reduce the possibility of TB infection:

   a) Respiratory Protection: The use of a National Institute for Occupational Safety and Health (NIOSH)-approved high efficiency particulate air (HEPA) respirator, N-95 or better, is the minimum acceptable level of respiratory protection under the following circumstances:

      (1) When members enter rooms housing individuals with suspected or confirmed infectious TB

      (2) When performing high hazard procedure on individuals with suspected or confirmed infectious TB, including:

         (a) Administering nebulized/aerosolized medications

(b) Endotracheal intubation or tracheal suctioning

(3) When transporting individuals with suspected or confirmed infectious TB in a closed vehicle

(4) Transport Precautions: When transporting individuals with suspected or confirmed infectious TB, the following precautions will be utilized:

(a) Air conditioning or heating controls will be set to non-recirculating mode.

(b) Open vehicle windows or vents if feasible.

(c) NIOSH-approved HEPA respirators, N-95 or better, shall be worn.

(d) Have the patient don a dust filter mask or NIOSH-approved non-venting HEPA respirator, N-95 or better, if possible.

XIII. 29 CFR 1913.20 Access to Employee Exposure and Medical Records

A. Exposure to TB infection is an employee exposure within the meaning of 29 CFR 1910.20. All results of TB skin testing and medical evaluation and treatment will be handled according to 29 CFR 1913.10.

XIV. Compliance & Monitoring

A. The Department's EMS Division will collect compliance and quality monitoring data including:

1. Inspection of station facilities
2. Observations of on scene activities
3. Analysis of reported exposures to communicable disease

B. Program evaluation:

1. The BBP/ABP Control Plan and exposure controls shall be evaluated at least annually to ensure that the program is both appropriate and effective.
2. The plan will be evaluated as needed to reflect any significant changes in assigned tasks or procedures; in medical knowledge related to infection; or in regulatory matters.