

	Department of Public Safety	
	Standard Operating Guidelines	
	Subject:	Infection Control / Exposure
	Section:	Operations
	Guideline Number:	309
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Signature of Approval:	Charles R. Pruitt Director of Public Safety 	

PURPOSE

To provide control measures to prevent an exposure to a communicable disease during the delivery of patient care.

SCOPE

To provide specific procedures that complies with the requirements of 29 CFR 1910.1030.

CONTENT

These procedures define the minimum requirements for an infection control exposure control plan. These procedures supplement the requirements of the Eastern Shore Emergency Medical Services Council Exposure Control plan.

In order to have a successful program, this plan utilizes the primary components of the OSHA standard. These components include engineering and work practice controls, personal protective clothing and equipment, training, medical surveillance, hepatitis B vaccination and hazardous communication.

ACCOMACK COUNTY EXPOSURE CONTROL PLAN

In December, 1997, the Eastern Shore EMS Council implemented an Exposure Control Plan to minimize and prevent occupational exposures to personnel affected by this program. The procedures outlined in the Eastern Shore EMS Council Exposure Control Plan served as a basis for the department's Infection Control & Exposure Control Plan. Specific issues particular to the Accomack County Dept. of Public Safety operations will be addressed in this SOG.

TRAINING AND EDUCATION

Annual training and education shall be provided to all personnel. This training and education will include topics on, but not limited to, epidemiology, the use of personal protective equipment, safe work practices relating to infection control, reporting potential or true exposures, proper decontaminating and cleaning of clothing and equipment and proper methods of disposal of contaminated articles and medical waste.

Members will receive education and training regarding tuberculosis prior to assignment in the department in which an exposure may occur. Training shall be conducted annually and during working hours. Additional training shall be provided whenever changes in laws, standards or

procedures affect employees. Annual training will be combined with all other infection control training including Blood Borne Pathogens.

The training program shall be designed to incorporate the following elements:

- TB transmission, pathogenesis and diagnosis
- Principles and practices of infection control that reduce the risk of transmission of TB
- Health maintenance procedures including PPD testing, drug therapy for TB infection or active TB and other medically related issues
- Personal protective equipment including respiratory protection and its proper use

Training records shall be maintained for three (3) years from the date on which the training occurred. The following information shall be included:

- dates of the training sessions
- contents or a summary of the training sessions
- name(s) and qualifications of the instructor(s)
- name and job title of members attending

Training records shall be provided upon request for examination and copying to members, to members' representatives and to the Commissioner of the Department of Labor.

HEALTH MAINTENANCE

A significant part of the infection control process is health maintenance. The Department of Public Safety has implemented a health maintenance program that requires routine medical evaluations by a department approved physician. Other components include testing and/or vaccinations for exposures, medical evaluation after an exposure, consultation with the Public Health Physician or department physician in the event of an exposure and any prescribed follow-up procedures as required by the Public Health Department or Department Physician. As a preventive measure, members have available the following immunizations: hepatitis B, tetanus, diphtheria, mumps, measles, polio and influenza.

PERSONAL PROTECTIVE EQUIPMENT

For the emergency care provider, personal protective equipment (PPE) is an important means of protecting oneself from an exposure to a communicable disease. The Department of Public Safety through associated agencies offers various types of PPE for use during patient care.

PPE includes:

- examination gloves
- safety glasses or combination face mask/eye shield
- protective gown
- turnout coat and pants
- structural fire fighting gloves
- structural fire fighting boots
- decontaminating/cleaning gloves

Personal protective equipment for infection control consists of examination gloves, protective eyewear, particulate respirator, fluid resistant gown and resuscitation equipment. Members who are allergic to latex or their components will be issued hypoallergenic or powder free examination gloves. PPE is either individually issued or issued to the vehicle to which the member is assigned.

RESPIRATORY PROTECTION

All members shall be issued a respirator which includes being medically certified to wear the respirator and properly fit-tested to wear this respirator. Respiratory protection shall be required for all members exposed to persons with suspected or confirmed TB, entering TB isolation rooms, endotracheal intubation, suctioning or other job functions that could lead to an exposure to tuberculosis. The requirements for respiratory protection shall comply with 29 CFR 1910.134 and 42CFR Part 84. The department is currently using the 3M "Particulate Respirator Type N95," which complies with CDC and OSHA requirements.

EYE PROTECTION

Members shall wear eye protection that is provided whenever splashes, spray, splatter or droplets of blood other potentially infectious materials may be generated and eye, nose or mouth contamination can be reasonably anticipated.

PROTECTIVE CLOTHING

There are various types of protection available for members to wear. Station work uniforms can be utilized in situations where contamination is not an issue. Fluid resistant gowns or turnout gear can be utilized when working in areas that are contaminated or can become potentially contaminated. These situations can include but are not limited to vehicle accidents, gunshot wounds, stabbings, childbirth or any other trauma incident that could cause contamination to members. Gowns shall be worn when decontaminating and cleaning equipment.

Under no circumstances shall contaminated station work uniforms or personal protective equipment be taken home to be washed or cleaned.

MANDATORY USE OF PERSONAL PROTECTIVE EQUIPMENT

The type of personal protective equipment used during patient care varies from incident to incident. Information presented at time of dispatch or situation at time of arrival will dictate the type of PPE used.

1. If an airway must be used or suctioning is required as part of the patient care process, face and eye protection shall be worn.
2. In the event of childbirth or a trauma situation, such as a gunshot wound or excessive blood or body fluids, the use of the face mask/eye shield, gown and booties shall be used.
3. Structural fire fighting gloves or leather work gloves shall be worn in any situation where sharp or rough surfaces are likely to be encountered.
4. Personal protective equipment shall be donned prior to initiating any type of patient care.

5. Members shall cover all areas of abraded, lacerated, chapped, or otherwise damaged skin with adhesive dressings, provided the member is not constrained by the following requirements. Members with extensive skin lesions or severe dermatitis on hands, arms, head, face or neck shall not engage in direct patient contact, handle patient care equipment or handle medical waste unless affected skin areas can be completely protected from exposure.
6. Members shall not eat, drink, smoke, apply cosmetics or lip balm or handle contact lenses while wearing gloves.
7. The public should be reassured that infection control PPE is used as a matter of routine for the protection of all members and the victims that members treat. The use of PPE does not imply that a given victim has a communicable disease.

REMEMBER: A risk assessment of the situation is imperative in protecting yourself and fellow firefighters.

OPERATIONAL PROCEDURES

In providing patient treatment and care, the following are safety guidelines for members to follow:

1. Treat each incident as a potential exposure to a communicable disease.
2. Information given during dispatch may assist in protecting against an exposure - trauma, childbirth, bleeding, coughing or other type of signs and symptoms.
3. Limit the number of personnel involved in patient care to reduce the number of exposures when possible.
4. Wear appropriate level of personal protective equipment.

When performing emergency medical care, members must ensure that they take the necessary precautions to protect themselves from communicable diseases. Risk assessment is the start of the process by identifying the type of incident members are responding to. As mentioned in the PPE section, for trauma situations proper protective equipment is absolutely necessary. Limiting the number of exposures to the minimum number of members is another form of risk assessment. All members have the responsibility to comply with these procedures to ensure for their safety and health.

A patient may or may not tell you they are being treated for TB. Ask them the names of the medication they are currently taking. Recognizing the most commonly prescribed drugs will provide you with another indicator that the person may be undergoing treatment for tuberculosis. Most patients with pulmonary tuberculosis will take at least two of the following medications:

ANTI-TUBERCULOSIS DRUGS

ISONIAZID:	INH, Laniazid, Nydrazid, P-I-N Forte
RIFAMPIN:	Rafadin, Rifamate, Rimactane, Rofact
PYRAZINAMIDE:	PZA, Tebrazid
ETHAMBUTOL:	EMB, Etibi, Myambutol
STREPTOMYCIN:	SM

HANDLING OF SHARPS

1. All used sharp objects shall be considered infectious and shall be handled with extraordinary care.
2. Used needles SHALL NOT BE RECAPPED, bent or removed from the syringe. "SHARPS" containers shall be utilized for disposal of used needles.

SKIN WASHING

1. Skin surfaces that were not covered by clothing, protective clothing or infection control garments shall be washed with hot soap and water after the following:
 - providing patient care
 - cleaning and disinfecting protective clothing and/or medical equipment
 - after any cleaning function
2. If personnel do not return to quarters immediately after the incident, personnel shall use the "Vironox" wipes or other commercially available antiseptic solutions to clean their hands. Hands and other exposed skin will be washed with water and soap upon returning to quarters.
3. Hands shall be washed before and after using the bathroom, before and after handling food, cooking and handling food utensils and before and after handling clean and disinfected emergency medical equipment.
4. Hands, arms and other contaminated skin surfaces shall be washed with soap and water by lathering the skin and vigorously rubbing together all lathered surfaces for at least twenty (20) seconds, followed by a thorough rinsing under running water.

DISINFECTING AND CLEANING AREAS

1. Each station shall designate an area for the cleaning and disinfecting of protective equipment, protective clothing, portable equipment or any other clothing. This cleaning area shall have proper ventilation, lighting and drainage connected to the sanitary sewer system.
2. This designated cleaning area shall be physically separate from areas used for food preparation, cleaning of food and cooking utensils, personal hygiene and sleeping and living areas.
3. Disinfecting shall not be conducted in fire station kitchens, living, sleeping or personal hygiene areas.
4. Disinfecting facilities shall be equipped with rack shelving of nonporous material. Shelving shall be provided above the sinks for drip-drying of cleaned equipment.
5. All bleach/water solutions shall be mixed daily or every twenty-four (24) hours. The mixture becomes ineffective after a twenty-four (24) hour period.
6. All non-disposable EMS equipment shall be cleaned with soap and water.
7. After being scrubbed clean, a 1% to 10% bleach/water solution shall be sprayed on the contaminated surface and allowed to sit for ten (10) minutes.

NOTE: CDC "Guidelines for Prevention of Transmission of HIV and HBV to Health-Care and Public-Safety Workers" states under the section of Environmental Consideration for HIV Transmission, "Sterilization and Disinfection" that concentrations ranging from approximately 500 ppm (1:100 dilution of household bleach) sodium hypochlorite to 5000 ppm (1:10 dilution of household bleach) are effective depending on the amount of organic matter (e.g., blood, mucus) present on the surface to be cleaned and disinfected. Commercially available chemical germicides may be more compatible with certain medical devices that might be corroded by repeated exposure to sodium hypochlorite, especially the 1:10 dilution.

8. Metal and electronic equipment shall be disinfected with 70% isopropyl alcohol left on surfaces for ten (10) minutes.
9. Personnel shall utilize personal protective equipment as required when decontaminating and cleaning clothing and equipment.

DISINFECTING AND CLEANING OF PERSONNEL

If emergency services personnel, whether it is Fire, Rescue, or Law Enforcement, the following are procedures for decontaminating clothing and these personnel.

1. If personnel are contaminated, station work uniforms should be cleaned, removed and/or disposed of as determined.
2. Clean personnel with anti-septic wipes as best as possible.
3. Have person(s) shower with soap and hot water.
4. Ensure personnel are decontaminated well before allowing them to move to the showers. This will prevent contaminated personnel from unnecessarily contaminating floors and/or carpet in the fire station.

DISINFECTING AND CLEANING APPARATUS VEHICLES AND/OR EQUIPMENT

If emergency services apparatus/vehicles and/or equipment, whether it be Fire, Rescue or Law enforcement, become contaminated the following are procedures for decontaminating them.

1. Ensure proper PPE is used. In most situations, cleaning gloves will be adequate for these tasks.
2. A 1% to 10% solution of chlorine bleach can also be used to decontaminate and clean vehicles and apparatus.
3. For patient care equipment (e.g., suction unit, airways, stethoscope, BP cuff) shall be cleaned or disposed of per the manufacturer's recommendations.
4. Ensure apparatus/vehicles and/or equipment are decontaminated well before going back in service. This may prevent unnecessary contamination of personnel and civilians blood, body fluids or OPIM.

BIOHAZARD WASTE

All medical waste and other items contaminated with blood or other potentially infectious materials shall be disposed of in a biohazard waste container. The containers should be red or lined with a red liner and marked with the BIOHAZARD WASTE symbol.

PURPOSE: These containers are for disposal of any hazardous waste, such as latex gloves, masks, protective eyewear, gowns or any other disposable clothing and/or equipment associated with infection control procedures. The containers are to be lined with the disposable bags at all times. At no time is waste to be placed in the container without the disposable liner in place.

PROCEDURES

1. All contaminated clothing and/or equipment is disposed of at the scene by the rescue squad on the scene.
2. If contaminated clothing and/or equipment cannot be disposed of at the emergency scene and is brought back to the fire station and it cannot be disinfected and/or cleaned, it will be disposed of in the biohazard waste containers. All biohazard waste must be patient generated for the hospitals to accept and dispose.
3. These containers are for Fire, EMS and Law enforcement personnel use only.
4. The containers shall be checked and emptied every twenty-four (24) hours and/or when they are at least three-quarters (3/4) full. The disposable red bag is removed and transported to the hospital for proper disposal. If the bag is leaking or punctured, it must be placed inside another bag.
5. NO SHARPS OF ANY KIND ARE TO BE PLACED IN THESE CONTAINERS.
6. To clean and disinfect these containers, chlorine bleach and water can be used.

HEALTH HAZARDS

In the event of a potential exposure to a communicable disease, the member shall notify the on duty supervisor or the department Safety Officer. Prompt notification is imperative so assistance can be given to member(s) in getting immediate and timely information from health care professionals and facilities regarding their exposure.

EXPOSURE INCIDENTS AND MEDICAL FOLLOW-UP

If a member has an occupational exposure, the member shall complete an Accomack County "Health Hazard Exposure Form". This form is completed and forwarded to the Department Safety Officer. Due to the various lengths of incubation times of communicable diseases, an accurate accounting of your activities, protection worn, type of exposure and disease encountered is critical.

If a member does require any type of medical treatment, the documentation, which is parallel to that of reporting an injury, are completed and forwarded to the Safety Officer.

In the event of an exposure or suspected exposure to tuberculosis, the member shall notify their supervisor of this exposure. The member or supervisor shall notify the department's Safety Officer immediately. Prompt notification is imperative so assistance can be given to the member(s) exposed from the health care professionals regarding their exposure.

Testing of exposed members or potentially exposed members shall be done immediately to establish a negative baseline and then twelve (12) weeks from the date of the exposure incident. Members should complete and forward a Health Exposure Form to the Department's Safety Officer immediately.

If notifications are received through the admitting hospital, the Safety Officer will immediately notify the affected members. Testing shall be arranged through Public Health or Occupational Health to meet the necessary time requirements.

INFECTION CONTROL OFFICER

The Department of Public Safety - Safety Officer shall serve as the Department Infection Control Officer. In the event personnel cannot contact the Safety Officer via radio or telephone, please contact the Battalion Chief for assistance.