S.O.P. #: PERSONNEL 17

SUBJECT: INFECTION CONTROL PLAN

DIVISION: CAREER PERSONNEL/VOLUNTEER PERSONNEL

OBJECTIVES: To establish guidelines for all members of the Baltimore County Fire Department that will assist in minimizing the risk of contracting and/or spreading communicable or infectious diseases by providing prophylactic control measures when necessary. Certain specific communicable and/or infectious diseases, such as HIV infection or Hepatitis, may require specific policies, education, training and related testing procedures inherent to that disease.

To advise all personnel regarding current requirements for minimizing risk of disease exposure; to provide direction in the event an employee is exposed to communicable disease, blood borne pathogen or other potentially infectious material; and to prescribe all protective equipment (PPE) and appropriate use thereof, for all members.

To protect the confidentiality of patients and departmental personnel who are suspected or known to be infected with a communicable or infectious disease.

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Section 1: SCOPE

A. This SOP applies to all uniformed personnel of the Baltimore County Fire Department. Volunteer departments fall under the infection control umbrella of the Baltimore County Fire Department. As a result, this SOP applies to all volunteer personnel while performing duties as a volunteer.

B. The department 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 the department. Each member is ultimately responsible for his or her own health; the department recognizes a responsibility to provide a safe workplace as possible. The goal of this program is to provide all members with the best available protection from occupationally acquire communicable diseases.

Section 2: REGULATION AND RESPONSIBILITY

A. Regulation: This SOP is based on the requirements set forth in the following documents:

1. OSHA 29 CFR 1910.1930
2. OSHA CPL 2-2.44D (Provides clarification to CFR1910.1030)
3. COMAR 09.12.26 (Supplements CFR 1910.1020)

B. Responsibility:

1. The Baltimore County Fire Department Infection Control Plan is managed through the Health and Safety Office.. Safety-1 is the primary Infection Control Officer and will ensure an Infection Control Officer is available, either on duty or on call, at all times. EMS-1 is also to be notified when exposure incidents occur.

2. All personnel are responsible for providing pre-hospital treatment and transportation to all patients regardless of their medical condition. Failure to do so will result in the pre-hospital care provider being dealt with according to the provisions set forth in the Rules and Regulations of the Baltimore County Fire Department, Standard Operating Procedures for the Baltimore County Fire Department and/or the Maryland Medical Protocols, as well as COMAR Title 30.

3. Medical history and examination CANNOT reliably identify all potentially infectious patients. Therefore, proper infectious disease precautions must be utilized consistently for all patients. Compliance with this SOP is mandatory.

4. If a pre-hospital care provider has been exposed to an infectious disease, there are established procedures which must be followed in reporting and treating the exposure and in obtaining the necessary medical follow-up. Using appropriate protective measures (Universal Precautions and BSI) will minimize the risk of being exposed or acquiring an infectious disease. Proper cleaning techniques are also important in controlling the spread of infection. Properly cleaning equipment, transport vehicles, clothing, and exposed skin surfaces, greatly reduces the risk of exposure

C. Training:

1. The Fire Department is responsible for keeping all personnel current on new information; procedures; engineering controls; personal protective equipment (PPE) and training pertaining to communicable or infectious diseases. Initial training programs (First Responder, Emergency Medical Technician, Emergency Medical Technician - Intermediate and Emergency Medical Technician-Paramedic) have didactic presentations on communicable and infectious diseases as part of their course material. The Department has developed a video tape that will be viewed as part of an initial training program. Class discussion will follow the video tape. Infectious and communicable disease practices and procedures will be reinforced during annual recertification programs. Emphasis will be placed on current diseases that pose a health problem. The Emergency Medical Services Division, along with the Baltimore County Health Department, Safety Officer, and the Fire Rescue Academy (FRA), will develop course material that can be utilized for various training avenues, such as:

    a. In-station training
    b. County-wide video distribution
    c. Initial training programs as a supplemental program
    d. Battalion drills
    e. Seminars

2. The FRA will keep a record of all training which has been forwarded by the instructors. MIEMSS approved training courses will be tracked through MIEMSS, after being forwarded by the FRA.

D. Confidentiality:

All medical records are to be treated as confidential. Personnel will also treat communicable and/or infectious disease issues as confidential. Medical information contained in any Fire Department document (i.e., Electronic patient care report or MAIS report) may only be released to the receiving hospital, the patient, the parent of that patient (if he/she is a minor) or, legal representative of a patient. Requests for release of information contained in any Fire Department document will be handled through Records Office.

E. Notification Of Exposures

The current Maryland law under Health General Article 18-213 states: "while treating or transporting an ill or injured patient to a medical care facility or while acting in the performance of duty, if a paid or volunteer firefighter, Emergency Medical Technician, or rescue squadman, comes into contact with a patient who is subsequently diagnosed as having a contagious disease or virus, as a result of information obtained in conjunction with the services provided during the visit to the facility, the attending physician or medical examiner or a designee of the medical care facility or medical examiner's office who receives the patient shall notify the firefighter, Emergency Medical Technician, or rescue squadman and employer's designee of the individual's possible exposure to the contagious disease or virus."

The notification is required to:

1. Be made within 48 hours or sooner, of confirmation of the patient's diagnosis.

2. Include subsequent written confirmation of possible exposure to the contagious disease or virus.

3. Be conducted in a manner that will protect the confidentiality of the patient; and...

4. To the extent possible, be conducted in a manner that will protect the confidentiality of the firefighter, Emergency Medical Technician or rescue squadman, or law enforcement officer.

NOTE: Maryland hospitals have been directed by the Maryland Hospital Association to comply with this law.

It is important to remember that patients treated for an injury or non-related illness, are NOT routinely screened for infectious disease (unless symptomatic) and, therefore, all pre-hospital care providers shall, on all occasions, use universal precautions and body substance isolation to minimize or prevent the spread of disease.

Section 3: WORKPLACE MONITORING

1. Routine equipment checks shall ensure that all designated engineering controls are in place and in proper working order (as required); e.g., sharps containers, glove boxes, PPE and other related equipment. This is accomplished through daily inspections.

2. A periodic inspection by EMS District Officers shall ensure that the equipment is in place and being used as required. Suppression equipment will be periodically inspected by the station officers and/or the Battalion Chief.

3. Personnel shall monitor and be responsible for the use of personal protective equipment. All officers of the Baltimore County Fire Department shall ensure that prescribed equipment and practices are being used and followed. Failure to comply with the designated PPE could result in disciplinary action.

4. Review of the work place environment, procedures and engineering controls will be conducted as necessary, but not less than annually, by the safety office and EMS staff.

Section 4: CLEANING AND DISINFECTION

A. Definition

Decontamination: (cleaning) removing disease producing organisms and making the environment or an object safe. Primarily mechanical in nature, cleaning involves the use of washing, scrubbing or otherwise mechanical removal of dirt, contaminants and debris. Soap or detergent is used, which may kill infectious agents, but is primarily used to clean.

Disinfection: Physically or chemically killing an infectious agent outside of the body. Involves the use of hot water and soaps (140 degrees F) or detergents with antimicrobial properties, designed to kill infectious agents. This is the level to which medical hardware used by the fire department is cleaned prior to being returned to service. Examples include the use of diluted bleach , cavicide, or antimicrobial spray cleaners designed primarily to kill infectious agents.

Sterilization: Complete removal or destruction of all forms of microbial life, accomplished by steam, gas or liquid agents. All IV and IM medications and invasive equipment are sterile. Examples include IV Supplies, ET Tubes, and IO equipment.

B. Categories for cleaning, disinfecting or sterilizing of medical equipment

1. Non-Critical Equipment:

    a. Does not touch mucous membranes; is not inserted into the body.
    b. Clean with hot water and soap or a detergent disinfectant and hot water
    c. Example: Spinal Immobilization Devices

2. Semi-Critical Equipment:

    a. Touches mucous membranes
    b. Requires high-level disinfection
    c. Examples:
        1. Hardware i.e. Laryngoscope (re-usable) blades.
        2. Disposables i.e. nasopharyngeal and oropharyngeal airways.
        3. The Baltimore County Fire Department policy is that semi-critical equipment, which is not defined as hardware, is considered disposable. It is not to be cleaned and reused.

3. Critical Equipment:

    a. Critical equipment is more invasive than semi-critical equipment. It bypasses normal systemic defense mechanisms such as the skin or upper respiratory tract.
    b. Requires sterilization (Critical items used in the field are packaged in sterile containers and are disposable; therefore, prehospital personnel will not be involved in sterilization procedures).
    c. Examples: IV and IO supplies, syringes, needles.

        NOTE: All critical equipment is classified as disposable.

C. Cleaning Instructions for soiled or contaminated equipment.

1. General Instructions for Cleaning:
    a. Wear gloves when cleaning.
    b. If cleaning in such a manner that splash or spray is possible, wear eye protection.
    c. When possible, decontaminate equipment prior to departing the hospital.
    d. Scrub with soap and water. (Hot when possible)
    e. Use appropriate disinfectant for the type equipment being cleaned.

f. Rinse and dry equipment prior to placing back in-service.
g. Wash hands when task is complete.
h. If any equipment needs to be sent out to a private contractor for cleaning/Decontamination (for example, Reeve stretcher) the following procedure shall be followed:
    1. Place only non-disposable items in red bio-hazard bags. Examples include Reeve stretchers, Hare-Traction splints, firefighting boots).
    2. Tag the red bag as "contaminated" equipment.
    3. Contact Quartermaster/supply and inform them you need the items picked-up. This must be accomplished before the transporter arrives.
    4. Complete a Form 58 detailing what items are contaminated, unit/station and if personal items, the member's name and ID number.

2. Laryngoscope Blades (non-disposable)

    a. Require high level of disinfection.

    b. Wash with soap and water to remove gross contaminants prior to using disinfecting agent.

    c. Use only approved disinfectants.

    d. Spraying of disinfectants (uneven application) can cause electrical connections and electronic instruments to malfunction due to ionic residues.

    e. Use of bleach can corrode metal with repeated or prolonged application.

    f. After application of bleach solution or other corrosive disinfection agent, rinse and dry.

    NOTE 1: Use of a 1:100 solution of bleach is an acceptable practice. Equipment should not be left in the solution for longer than 10 minutes..
    NOTE 2: 1:100 bleach is mixed as ¼ cup of household bleach in 1 gallon of water.

3. Cleaning of Transport Vehicles

    a. Wear gloves and appropriate PPE when cleaning. Use of eye protection is required if the cleaning process involves procedures which may cause spray or splash.
    b. Clean with detergent disinfectants and hot water
    c. Bleach is NOT recommended (it can corrode metal and may damage equipment)

D. Washing Clothing

1. Routine laundry practices at home provide adequate decontamination.
2. Hot water (140 degrees F) will kill viruses and bacteria.
3. When using water cooler than 140 degrees F, a detergent disinfectant is recommended.
4. Bleach is NOT necessary. If it is used, do not exceed one (1) cupful per washtub of water.
5. Dry-cleaning chemicals provide adequate cleaning.
6. Uniform laundering is the responsibility of the individual.

    NOTE: Don't forget the bottoms of boots and shoes. Wash the bottoms of boots and shoes with hot soapy water to avoid contaminating other areas of your workplace as well as your home.

    After grossly contaminated clothing or other items are washed in a washing machine, to avoid the potential of cross-contamination, it is advisable to run an empty cycle with hot water, soap and one cup of bleach in the machine.
    A 1:100 bleach solution may be made by adding 1/4 cup of bleach to one (1) gallon of water.

Section 5: EXPOSURE RISK AND DETERMINATION

A. General: The provision of emergency medical care is required by all members of the department. Clearly, even those individuals not assigned to a medical transport unit are therefore at risk of exposure. All members of the department operating on any scene where there is risk of communicable disease exposure, blood borne pathogen exposure or other potentially infectious material exposure, will adhere to Universal Precautions and Body Substance Isolation.

Section 6: ENGINEERING CONTROLS AND PPE

NOTE: Engineering Controls and Work Practices are designed and used to prevent or minimize exposure to communicable diseases, blood borne pathogens and other potentially infectious material.

A. Engineering Controls.
   1. Identification and evaluation of engineering control updates, practice updates and technology updates.
      a. The EMS staff along with the Safety Officer and the Joint Safety Committee will work together and review new technology as it becomes commercially available. Input from the field is always welcome when individual members become aware of any new equipment or procedure, which enhances safety.
      b. The EMS staff reviews CDC updates, regulatory requirements, to include: OSHA and MOSH regulations, as well as trade journals, to ensure that new and safer equipment is considered, evaluated, and implemented as appropriate.
      c. New technology and procedures are evaluated by field personnel, with written evaluation criteria. If new items are found to enhance safe operations, they are adopted and placed on bid for purchase.

   2. Engineering Controls and Work Practices
      a. Impervious Sharp Containers
         1. All transport units will carry at least one large sharps container on the unit. They will also carry a small container in their medical and trauma bags. A sharps container must be immediately available for use during any procedure involving the use of sharps. All sharps, clean or contaminated, will be disposed of in a sharps container.
         2. All non transport units will carry a minimum of one small sharps container.
         3. When disposing of a sharp, the container will be on a level surface, or may be held by the person disposing of the sharp. The container will not be held by anyone else during disposal.
         4. Sharps containers will only be filled to the level specified by the manufacturer. Once filled, they will be sealed and disposed of.
         5. Sharps containers are left at the receiving facility when full. NOTE: Some hospitals have contracts with a Bio-Waste company and may not be accommodating to our sharp containers.

      b. Red Biohazard Bags.
         1. All medic units, engines, trucks, first responder vehicles and EMS vehicles will carry a minimum of two (2) red biohazard bags. They will be used for disposal of contaminated medical waste. They are to be left at the receiving facility.
         2. Biohazard bags may not be used to dispose of sharps.
         3. Red biohazard bags should not be used for general trash collection and shall not be disposed of in dumpsters or trash cans.

      c. Waterless Hand/Skin Cleaner
         1. Waterless hand cleaner is to be carried on all apparatus. It is to be used whenever contamination is present or suspected. It is recommended for use after degloving as well.
         2. Personnel will wash with soap and water as soon as practical even if waterless hand cleaner is used. This may be accomplished on arrival at the hospital or return to quarters.
         3. Safe sharp technology currently in use by Baltimore County Fire Department includes:

a. Retractable Stylette IV catheters.
b. Retractable syringe needles (1cc as well as 3cc with 22ga needle)
c. Auto retractable lancettes for use with the glucometer.

3. Protective Clothing and Equipment:
   a. Disposable medical-grade gloves (sterile and non-sterile)
   b. Pocket mask (for rescue breathing)
   c. Waterless hand-cleaner/towelettes
   d. Disposable surgical or N-95 face masks
   e. Disposable face and eye protection
   f. Disposable Gowns
   g. Disposable Tyvex Suits (carried by EMS District Lieutenant)

B. Use of Protective Equipment:

NOTE: All PPE carried on apparatus shall be appropriate quantities for unit staffing.

1. Medical history and physical examination CANNOT reliably identify all patients with infectious disease. Since in most cases, the presence of an infectious disease is found after the incident/call, universal precautions and body substance isolation shall be followed on all incidents.

2. All pre-hospital providers should routinely use appropriate barrier precautions to prevent skin and mucous membrane exposure for each patient contact. Gloves are to be worn for each patient contact. They shall also be worn when handling items or surfaces soiled with blood or body fluids

3. Gloves shall be changed when:
   a. Contaminated following single patient use.
   b. After an invasive procedure.
   c. Upon discovering any tears or damage to gloves while performing patient care.
   d. To reduce risk of cross-contamination.
   e. To reduce risk of self-exposure.

   NOTE: Do not eat, drink or smoke while wearing contaminated or soiled gloves. The routine use of gloves driving to the incident or to the hospital should be discouraged. Avoid handling personal items that could become soiled or contaminated. Upon removal of gloves, handwashing or the use of disinfectant hand cleaner/towelette is indicated.

C. Hand Washing
Even with proper use of barrier precautions, <u>good personal hygiene is the single most important principle used in the prevention or spread of a communicable disease</u>. Hands and other skin surfaces should be washed immediately and thoroughly, after each incident, especially if contaminated with blood or body fluids. Hands should be washed immediately following the removal of gloves as well. The use of a waterless disinfectant hand cleaner is acceptable until an appropriate hand washing facility is available.

D. Mask
Masks (N-95 or surgical style) should be used if "suspected infection" is spread by droplet formation. Examples of these diseases are upper-respiratory infections such as Tuberculosis, pertussis, pneumonia, influenza, measles and meningitis.

E. Face and Eye Protection
Face and eye protection (glasses or goggles) are used in similar situations as the mask. They're used to protect eyes from splashes of blood and body fluids during patient care or during certain procedures. For example; suctioning the airway, inserting of an endotracheal tube or King Airway.

F. Gowns

In the prehospital setting, gowns can be cumbersome and possibly dangerous to wear around operating machinery as used in industrial settings or even in auto extrication activities. Few, if any gowns are flame retardant and, therefore, may create a hazard in the uncontrolled environment. Remember, blood or body fluids on clothes or intact skin, is not considered an exposure unless it is large amounts for an extended period of time. Soiled clothing should be changed and washed as soon as possible after being soiled with blood or body fluids. Gowns have been provided for use when you are likely to come in contact with large amounts of blood (i.e., Trauma, Shootings, Child Birth), and should be used in accordance with Appendix D.

G. Skin Care

All prehospital care providers should be acutely aware of the possibility of exposure to infectious disease. Prevention is the key to avoiding exposure and the spread of disease. It is especially important to protect any broken skin, (e.g; cut, scratch or abrasion, hang-nail, etc.). This may be accomplished by placing an adhesive strip bandage (Band-aid) over the injury. Use of hand cream is recommended to keep skin from cracking and splitting.

Section 7: MINIMUM PROTECTIVE EQUIPMENT REQUIREMENTS FOR PERSONNEL AND APPARATUS:

A. Uniformed Staff Personnel
1. Disposable gloves (dispenser)
2. Pocket mask for rescue breathing

B. Non Transport Units
1. Disposable gloves (dispenser)
2. Individual issue pocket mask
3. Disposable face and eye protection
4. Turnout gear
5. Disposable gowns, 1 per person.
6. Red "biohazard labeled" impervious contamination bags (small and large)
7. Waterless hand cleaner
8. Sharps container

C. Transport Units
1. Disposable gloves (dispenser)
2. Medical grade sterile gloves.
3. Pocket mask, bag-valve-mask.
4. Disposable face and eye protection
5. Disposable gown 1 per person
6. Turnout gear
7. Red "biohazard labeled" impervious contamination bags (small and large)
8. Waterless hand-cleaner
9. Sharps container both small and large.

Section 8: INFECTIOUS WASTE AND SCENE CLEAN UP

A. All infectious or potentially infectious medical waste and other material are to be placed in red biohazard bags. Bio hazard bags will be disposed of at the hospital.

B. All used sharps will immediately be placed in a sharps container at the patient's side. Devices' protective features (self-sheathing mechanism, etc.) designed to prevent sharps injuries shall be utilized as directed by the manufacturer. Sharps shall never be stuck in the carpet, mattress, bedding, etc. Sharps containers will be handled and disposed of per section 6 Engineering Controls portion of this document.

C. Scene cleanup.
1. Medical waste generated by the Fire Department will be removed from the scene. It will be handled per A and B above.
2. If more than one piece of apparatus is at the scene, units will coordinate to insure medical and potentially infectious waste is removed.

3. Bodily fluids and tissue, other infectious material:
    a. Will not be cleaned up if they represent part of a crime scene, unless requested by the police.
    b. Will not be cleaned if they are in a private home, residence or are on private property (except as noted in C.1. above). Basic wipe up of a contaminated scene may be performed at the discretion of the provider in charge of the scene. For example, if we are treating a person who vomits, we may as a courtesy, wipe up the area. However, we are not obligated to clean any substance in a private residence, unless we are the proximal cause of the spill or medical waste. (Spilled blood from an IV for example)
        1. As a courtesy to the public, citizens in need of assistance cleaning up contaminated scenes can be advised that several private companies will respond 24 hour/day for biohazard clean up. The Fire Department does not endorse any specific contractor. The following contractors are located in Baltimore County and provide these services:
            a. ServPro (1-800-SERVPRO)
            b. Service Masters (1-800-RESPOND)
            c. All Pro (800-806-7499 or 410-879-7499)
            d. Other contractors providing biohazard clean up services in Baltimore County can be found under “Fire and Water Damage Restoration” in the yellow pages.
    c. Will not be cleaned if they are in a medical facility.
    d. Clean up on Public Property
        1. Blood, body fluids, contaminated items, and other potentially infectious material shall be removed and/or decontaminated when found on public property secondary to an incident.
        2. Cat litter or absorbent shall be used to collect large amounts of bodily fluid. The absorbent will then be placed in red biohazard bags and be disposed of per A and B above. The surface from which the biohazard was removed will be wet down with hydrogen peroxide and allowed to stand for 2-3 minutes. The area will then be washed down with a copious amount of water.
        3. An engine company should handle most situations involving small amounts of infectious material. The Haz Mat units carry additional supplies and can be requested for assistance with large amounts of infectious material or infectious material spread over large areas.

D. The on-call Infection Control Officer is available through Dispatch for consultation at all times.

Section 9: TESTING AND IMMUNIZATION PROGRAM

NOTE: The Baltimore County fire Department participates in the MIEMSS Optional Testing and Vaccination Protocol. Refer to the current edition of the protocol for all information regarding testing and immunization.

A. Testing.
1. The Fire Department provides voluntary testing for:
    a. Hepatitis B Titers.

B. Immunization.
1. The Fire Department provides vaccination as follows:
    a. Flu Shots, voluntary, annually.
    b. Hepatitis B Vaccination.
        1. Voluntary. If Hepatitis B Vaccination is declined, CFR 1910.1030 requires the declination to be in writing, on the form provided. If an individual declines Hepatitis B vaccination and later determines they wish to receive it, the vaccine will be provided.
        2. Vaccination Schedule: Administered at Day 1, Month 2 and Month 4. Initial titer at month 6.
        3. If initial Titer Antibody are insufficient, repeat the 3 shot series and re titer. If Antibody remains insufficient, refer to employee to health services for evaluation.

APPENDIX A: ACCEPTED DISINFECTION AND CLEANING AGENTS.

1. The following list includes the accepted cleaning and disinfecting agents and their use guidelines.

   A. Soap and Water
   Soap and water is an acceptable cleaning agent for exposed skin. It is also the initial means of gross decontamination for all reusable hardware.

   B. Waterless Hand Cleaner
   Acceptable as an interim hand and skin cleaner. Use of soap and water is still required as soon as practical, on arrival at the hospital or return to quarters.

   C. 10% Bleach Solution
   10% bleach solution is an acceptable disinfectant for all removable hardware. It should not be used on the surfaces and hardware mounted in the medic unit due to it's corrosive properties. It must be mixed daily, and discarded after 24 hours. Mixed as ¼ cup of household bleach in 1 gallon of water. Applied by soaking small items, and wetting or spraying larger items, it is left in contact for no longer than 10 minutes. The hardware is then rinsed in plain water, dried and returned to service.

   D. Cavicide
   Cavicide is an acceptable alternative to Bleach, and is used in the same manner.

   E. Spray Disinfectant.
   Spray disinfectants are acceptable for the disinfection of the inside of the medic unit, and for mounted hardware. Disinfectant sprays issued by the department or made available at the receiving facility are generally acceptable for use. If in doubt, ask the EMS District Officer. Insure the spray is both Tuberculocidal and Virucidal

APPENDIX B: REFERENCES

A. U.S. Department of Labor. OSHA Instruction CPL 2-2.44B, 27 Feb. 1990 Office of Health Compliance Assistance, Asst. Secretary for Occupational Safety & Health, Washington, D.C.

B. National Fire Protection Association. Standard on Fire Department Occupational Safety & Health Program, NFPA 1500. Quincy, MA: National Fire Protection Association, 1987.

C. National Fire Protection Association. Standard on Fire Department Infection Control Program, NFPA 1581 (proposed).

D. National Fire Protection Association. Standard on Firefighter Professional Qualifications, NFPA 1001. Quincy, MA: National Fire Protection Association, 1987.

E. National Fire Protection Association. Standard for Professional Competence of Responders to Hazardous Materials Incidents, NFPA 472. Quincy, MA: National Fire Protection Association, 1989.

F. West, K. Infectious Disease Handbook for Emergency Care Personnel. Philadelphia: J.B. Lippincott Co., 1987.

G. DOL/OSHA Occupational Exposure to Bloodborne Pathogens; Final Rule. Federal Register 29CFR, Article 1910.1030. And as amended/updated 17 January 2001.

H. DOL/DOHHS: Joint Advisory Notice: Protection Against Occupational Exposure to Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV), October 19, 1987.

I. Recommendations for Prevention of HIV Transmission in Health-Care Settings. MMWR Vol. 36, No. 2, August 21, 1987.

J. DOL/OSHA: Occupational Exposure to Bloodborne Pathogens; Proposed Rule and Notice of Hearing. Federal Register Vol. 54, No. 102, May 30, 1989, and updated 17 January for application on 22 April 2001.

K. Maryland State Protocol for ALS and BLS Providers, Current Edition.

L. Baltimore County Fire Department Communicable Disease Exposure Guide, Current Edition. (Available in EMS District Office

M. Baltimore County Fire Department Exposure Packet, Current Edition. (Available in EMS District Office)