



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348
Fax: (309) 808-4235

Title of Policy: <i>Communicable Disease Policy</i>	Policy Number: IC-100
Effective Date: 10/2004	Review Date: 10/05/2016
Policy Area: Infection Control	Approvals: EMSSC, EMS MD

Background to Policy:

- a. To ensure the protection of Emergency Medical Service (EMS) personnel and patients, break the chain of infection of certain diseases, and provide guidance if a significant exposure occurs. Those communicable diseases are but not limited to: HIV, AIDS, Hepatitis, Pulmonary TB, Meningococcal Meningitis and Chicken Pox.
- b. Pre-hospital care providers have an ethical and moral responsibility to provide care to all patients to the best of their abilities. In this role, they place themselves in certain circumstances, at a higher than normal risk of being exposed to blood and body fluids that might contain infectious diseases. When administering care to patients, EMS providers will not always be aware or informed that these patients have a communicable disease. This policy also applies to paramedic students involved with the Advocate BroMenn Medical Center, OSF St. Joseph Medical Center, McLean County Area EMS System Paramedic Training Consortium.

Policy Statement:

The following best practices are for the use of protective equipment; the cleaning and disinfecting techniques that have been established in accordance with the Centers for Disease Control.

Policy:

- a. **Treating and Exposure**
 - i. **If you are exposed percutaneously:**
 1. Wipe off blood or fluid and apply alcohol.
 2. After arriving at the hospital, and as soon as patient care allows, wash your hands and the wound.
 3. If the wound is such that requires sutures, seek prompt medical attention.
 4. If you have received a puncture wound, seek medical attention to evaluate your tetanus immunization status.
 - ii. **If you are exposed mucocutaneously:**
 1. Flush your eye(s) or rinse your mouth with saline or water.
 2. After arriving at the hospital, and as soon as patient care allows, wash your face.
 3. Seek medical advice if further treatment or evaluation is necessary.
- b. **Protective Measures**
 - iii. The best way to avoid exposures to body fluids is to use protective procedures on all responses. It is better to enter a situation with protective gear in place than to delay treatment while you put on protective clothing.
 - iv. All pre-hospital care personnel must wash their hands before and after contact with any patient. This should be done regardless of the use of gloves.



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348

Fax: (309) 808-4235

- v. Before reporting for duty, cover any cuts, abrasions, or insect bites with a dressing.
- c. **Needles and Syringes**
 - vi. Needles should be disposed of in a red biohazard, rigid, puncture-resistant container kept inside the back compartment of the ambulance. Needles should never be recapped or intentionally bent or broken. Also, a needle cutting device should not be used. There are new products on the market that employ a guard that automatically locks into place around the needle as you withdraw in from the patient. Your local ambulance distributor should be contacted for purchase of those devices.
- d. **Cleansing of Ambulance and Equipment**
 - vii. The ambulance and equipment used should be cleansed with a 1:10 bleach solution after each patient use or other commercially available cleaning solution approved for biohazards. Appropriate personal protective equipment should be used when cleaning any contaminated surface.
- e. **Soiled Clothing**
 - viii. According to the Center for Disease Control, they recommend the following: Linen soiled with blood or body fluids should be placed and transported in bags that prevent leakage. If hot water is used, linen should be washed with detergent in water at least 71° C (160°F) for 25 minutes. If low-temperature water (70°C [158°F]) in the laundry cycle is used, chemicals suitable for low-temperature washing at properly used concentration should be used.
- f. **Masks**
 - ix. Masks should be worn whenever there is direct contact with a patient that has a transmissible respiratory disease. Masks must also be worn when there is a risk of blood or body fluid splashing onto mucous membranes, such as when intubating or suctioning a patient, or when you are caring for a patient with major bleeding.
- g. **Protective Eye Wear**
 - x. Use of glasses or goggles is recommended when there may be splattering of blood or bodily fluids.
- h. **Gloves**
 - xi. Gloves should be utilized when there will be contact with blood or other body fluids from a patient. Any open cut or any skin dermatitis that leaves skin open (i.e., eczema, psoriasis) on pre-hospital care personnel should be covered with a sealed moisture proof covering. These precautions should be taken before the EMT leaves the ambulance to care for a patient.
- i. **Cardiopulmonary Resuscitation**
 - xii. Disposable resuscitating masks and one-way airways should be carried in all ambulances and easily retrievable when the need arises. **No one** should be administering unprotected mouth-to-mouth resuscitation.
 - xiii. Guidelines for Use of Protective Gear during CPR:
 1. Gloves: The following types of gloves must be available to pre-hospital personnel



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348

Fax: (309) 808-4235

- a. Heavy duty leather gloves for performing light extrication or assist with extrication tasks.
 - b. Medical-grade gloves for patient care procedures that require dexterity and sensitivity but may involve contamination of the hands with blood or body fluids. Procedures may include IV insertions, dressing and splinting open injuries, and establishing airways.
 2. Hepa Mask
 - a. If EMS personnel believe that blood or body fluids might be splashed in their face, they should utilize a medical-grade face mask.
 3. Eye Protection
 - a. Plastic goggles are available for situations in which blood or body fluids could be splashed into the eyes, of such a design that allows clear vision and does not obstruct peripheral vision.
 4. Airway management
 - a. Respiratory assist devices should be utilized whenever possible and are to be of a disposable type only.
- j. **Sharps**
 - xiv. Special care should be taken when handling sharp needles, objects, and glass. Needles should not be recapped, bent or broken. Needles and other sharp objects should be disposed of properly in the heavy puncture-proof plastic containers in the ambulance.
- k. **Hand washing**
 - xv. Hands are to be thoroughly washed after each patient transport and as soon as patient care allows. In the field, waterless hand cleaners and alcohol are available for hand washing; hands are to be thoroughly cleaned with soap and water as soon as the necessary facilities are available.
- l. **Cleaning Procedures**
 - xvi. Non-critical types of equipment such as spinal immobilization devices, stretchers, blood pressure cuffs, stethoscopes, etc. are to be thoroughly cleaned with hot water and disinfectant detergents, such as a 1:10 dilution of bleach.
 - xvii. Critical items that come in contact with mucous membranes but are not disposable, such as laryngoscope blades require high level disinfection with a Cidex or 70% Isopropyl alcohol solution for at least thirty (30) minutes.
 - xviii. **Always wear gloves when cleaning and disinfecting pre-hospital equipment.**
 - xix. **Interior of Transport Vehicles**
 1. For the interior of transport vehicles, routine and consistent cleaning procedures with detergent disinfectants and hot water will provide adequate decontamination. The use of bleach is not recommended since repeated applications corrode metal and may damage some equipment.
 - xx. **Care of Clothing**



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348

Fax: (309) 808-4235

1. Routine laundering practices are adequate to decontaminate clothing that is soiled with blood or body fluids, utilizing hot water (106°F) and detergent.

m. Ineffective Procedures

- xxi.** All disinfectants require a clean surface before they can work.
- xxii.** The spraying of disinfectants is not recommended. Sprays are applied unevenly so that the amount sprayed may not disinfect the area adequately. Spray disinfectants can cause electrical equipment to malfunction.

n. Types of Disinfectants and Antiseptics:

- xxiii.** Commercial available biohazard substance cleaning substances.

xxiv. Bleach

1. Uses

- a.** As a powerful anti-microbial agent, bleach is recommended for cleaning up fresh un-dried blood spills or surfaces that are difficult to clean. Good disinfectant for plastic materials.

2. Concentration

- a.** 1:10 dilution (5000ppm) = 1 cup of bleach to 9 cups water (slightly more than ½ gallon).

3. Contact time

- a.** Thirty (30) minutes.

4. Precautions

- a.** Highly corrosive to metal even at low concentrations. Can hamper the function of electrical connections and electronic equipment. Can decolorize fabrics. Undiluted and 1:10 dilutions can cause eye, skin and respiratory irritations.

xxv. Alcohol, 70% Isopropyl

1. Uses

- a.** Can be used around electrical connections and electronic equipment because it leaves no ionic residue and does not corrode metal. A good skin antiseptic; the primary anti-microbial ingredient of most waterless hand washing products.

2. Contact time

- a.** Five (5) to thirty (30) minutes for high-level disinfection.

3. Precautions

- a.** Equipment must be immersed for disinfection; not recommended for disinfection of surfaces that cannot be immersed since it evaporates quickly. Flammable; inactivated by the presence of blood and dirt; can stiffen and crack plastic. May dry and irritate the skin.

xxvi. Glutaraldehyde, 2%

1. Uses

- a.** Powerful disinfectant; can kill bacteria, fungi, viruses. Most commonly utilized for respiratory equipment disinfection. Can work in the presence of blood and



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348

Fax: (309) 808-4235

dirt. Acid Glutaraldehyde does not corrode metal; most brands will not affect plastic or rubber.

2. Contact time
 - a. Ten (10) to thirty (30) minutes for high-level disinfection.
3. Precautions
 - a. Alkalized Glutaraldehyde will corrode and stain high-carbon metals such as stainless steel and leave residue on same. Unstable, expensive products that must be mixed freshly with each use to maximize effectiveness. Must never be used to disinfect environmental surfaces. Can cause burns on human skin and mucous membranes and are eye and respiratory irritants.

xxvii. Hydrogen Peroxide

1. Uses
 - a. Good for dissolving dried blood and body fluids from the surfaces of equipment. Can be used as a skin and oral antiseptic.
2. Concentration
 - a. 3%
3. Contact time
 - a. Reacts immediately upon contact.
4. Precautions
 - a. A 3% solution is not considered a disinfectant, so cleaning and decontamination are still required.

xxviii. Iodophors

1. Uses
 - a. Excellent skin antiseptics
2. Concentration
 - a. Varies with product.
3. Contact time
 - a. Must dry in air for maximum effectiveness
4. Precautions
 - a. Not recommended for disinfecting equipment. Corrode metal, dissolve rubber, crack plastic and stain metals. Can irritate fresh, open wounds or burns.

xxix. Phenolic and Quaternary Ammonium Compounds

1. Uses
 - a. Common classes of hospital environmental disinfectants.
2. Concentration
 - a. See manufacturers' recommendation.
3. Contact time
 - a. See manufacturers' recommendation
4. Precautions



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348
Fax: (309) 808-4235

- a. Should not be used to disinfect equipment; leave ionic residues; if used consistently for routine cleaning, these compounds must be stripped periodically from all surfaces. Affect the function of electrical and electronic equipment. Must be used exactly in accordance with label instructions. Material Safety Data Sheets should be obtained for these products.
- xxx. Detergent Disinfectants
 - 1. Uses
 - a. For cleaning and decontaminating environmental surfaces, non-critical equipment and laundering. Available in grocery stores. The words “disinfectant” and “detergent” are clearly visible on the label. Registered with the EPA because they are labeled as disinfectants.
 - 2. Concentration
 - a. See label instructions.
 - 3. Contact time
 - a. See label instructions.
 - 4. Precautions
 - a. See label instructions.
- o. Significant Exposure
 - xxxi. **Definition:** *Significant Exposure* means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that resulted from the performance as an EMS provider.
 - xxxii. **Classifications of EMS Providers**
 - 1. EMS Students
 - 2. First Responders, EMT-B, EMT-I, EMT-P
 - 3. Other ambulance service personnel
 - xxxiii. **Procedure for Exposure Incident**
 - 1. Any EMS Students or EMS Systems member with significant exposure in the clinical setting (i.e. Emergency Department, ALS Unit...) must report the incident to their educational supervisor and the EMS System office.
 - 2. Any EMT or other ambulance service/rescue personnel with significant exposure shall report the incident immediately to their agency supervisor, Director, Chief or Command Officer. The Individual must comply with the guidelines of their agency’s “Exposure Control Program”.
 - 3. Complete a detailed incident report including, but not limited to the following:
 - a. Documentation of the route(s) of exposure, and the circumstance under which the exposure incident occurred;
 - b. Identification and documentation of the source individual.
 - 4. Seek treatment at the emergency department of the hospital clinical site or where the source individual was transported, if transported to an emergency department.



McLean County Area EMS System

1609 Northbrook Dr. Ste. 8
Normal, IL 61761

Phone: (309) 827-4348
Fax: (309) 808-4235

5. If the patient was not transported to an emergency department, treatment should be sought at a local emergency department. NOTE: ***An EMS employer may require an individual to seek medical attention at a medical facility contracted with the EMS Agency to provide such services that is not an emergency department.***
6. Complete follow-up care as directed.

Resources:

1. https://www.ems.gov/pdf/workforce/Guide_Infection_Prevention_EMS.pdf
2. <http://www.emsworld.com/article/10322573/best-practices-infection-control>
3. <http://centegra.org/wp-content/uploads/2013/06/Infection-Control-Guidance-for-EMS-Providers.pdf>