



Rogers Fire Department Standard Operating Procedures

Policy Title:	Disinfection and Decontamination (EMS)		
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PURPOSE

This policy describes the decontamination procedures of equipment and clothing. This procedure outlines cleaning and disinfecting procedures for emergency medical equipment that may be contaminated with potentially infectious agents.

POLICY

It is imperative that all members properly clean and disinfect reusable equipment to minimize the possibility of infection during emergency treatment. Cleaning and disinfecting decreases the likelihood of infections by reducing the amount of disease causing organisms on equipment. Cleaning is defined as the removal of all foreign materials from objects. Equipment for invasive procedures that require sterilization will not be used by the department but will provide comparable equipment that is single use only. These items will be disposed of after each use as if they were contaminated waste.

All fire stations shall have a designated decontamination area. This area will be used only for disinfecting contaminated equipment. Cleaning infected equipment in this area will assure isolation of potential infectious agents. Stations will be provided cleaning solutions and necessary cleaning tools.

Contaminated Equipment Transport

Before transporting contaminated equipment from a scene or hospital to a designated cleaning area, these items shall be placed in a red biohazard bag. If the item is too large for the bag, care should be taken to make certain the item does not cause secondary contamination of equipment or supplies.

Equipment Disinfecting

Equipment that has been contaminated by blood or Other Potentially Infectious Materials (OPIM) shall be decontaminated through cleaning and disinfecting, or disposed of as contaminated waste. Members decontaminating and disinfecting equipment shall wear appropriate PPE and use disposable paper towels to remove gross contaminants. Anything used to clean blood or OPIM shall be disposed of as if it were contaminated waste. If using DisCide® wipes, follow the manufacturer directions on the container for disinfection / decontamination procedures.

If any medical equipment is contaminated with a patient's blood or OPIM, it must be decontaminated after use. Gross Decontamination shall be accomplished by utilizing supplied DisCide® wipes. The equipment will then be disinfected using the E-Mist disinfection machine, with an approved water based disinfection solution, and allowed to dry for a minimum of 5 minutes. This process will inactivate microorganisms such as HIV, HBV, Tuberculosis, and MRSA.

All EMS equipment shall be checked daily for cleanliness and operational readiness. Items that come into contact with patients will be given special attention in order to have them as clean as possible prior to use.

The following areas shall be checked on a daily basis:

- Oxygen and EMS Bags
- Spine Boards and KED Boards
- Suction Unit
- Cardiac Monitor
- Intubation Kits

If cleaning is necessary, follow the recommendations below:

- Oxygen/EMS Bags - Bags shall have all surfaces cleaned with soap and water. Dirt and debris will be removed and contents will be orderly and not overstocked.
- Spine Boards/KED Boards - Clean with soap and water. Follow disinfecting directions listed above.
- Suction Unit - Clean with soap and water to remove blood, food, or other particles. Follow disinfecting directions listed above.
- Monitor - Contaminated cables should be cleaned after each use. Monitor exterior should be cleaned and free from contaminants, dirt, and debris using the disinfecting directions above. Carrying case should be cleaned with soap and water.
- Intubation Kits - Cleaning of these items will follow directions listed in this section. Particular attention should be given to laryngoscope blades. Handles may be cleaned with using the disinfecting directions above

Disposable Equipment

The medical equipment identified below that requires sterilization and will be disposed of as contaminated waste. The following list includes some of the equipment available that are disposable due to the difficulty of decontamination required:

- Suction canisters/catheters/tubing.
- Head immobilizer/C-collars.
- Oxygen masks, cannulas, nebulizers, BVM's.
- Cricothyrotomy kits.
- OB kits
- Gloves, masks, sleeves.
- Intubation tubes, OPA's, NPA's.
- IV catheters, IO catheters, IV tubing, IV fluids.
- Bandaging materials, burn sheets.

Uniform Disinfection

Clothing that has been contaminated with blood or OPIM needs to be cleaned as follows:

- Contaminated clothing, including turnouts, will be changed as soon as possible and washed in detergent and warm water as recommended by the manufacturer.
- Contaminated uniform clothing will be washed at the fire station. Contaminated uniforms will be placed in a plastic bag to prevent any cross contamination of other uniforms, washed separately, and the washing machine should be rinsed with a cup of bleach after clothing is removed from machine. The department does not recommend the laundering of contaminated clothing at home.
- Uniform Boots or shoes should be scrubbed with soap and hot water to remove contaminants. Wash the soles of footwear after the medical incident or as soon as possible, if contaminated with blood or OPIM.

Hand Washing

The Center for Disease Control (CDC) states that "hand washing before and after contact with patients is the single most important means of preventing the spread of infection." Washing your hands after encountering each patient is a must. Use soap and water, or approved waterless hand sanitizer available on all apparatus and vehicles when other wash facilities are not available.

The CDC recommends that hand washing take a minimum of 30 seconds to properly rid the hands of protein matter, blood, secretions, and other contaminants picked up while handling patients. Vigorous scrubbing is essential.

The following is the suggested method for hand washing:

- Wet hands up to 2-3" above wrists.
- Apply hand-cleaning agent. Various agents and soaps are furnished for station use.
- Rub hands vigorously to work up lather.
- Using rotating motion, apply friction to all surfaces of hands and wrists, including backs of hands, between fingers, and around and under nails. Interlace fingers and rub up and down; continue for 15 seconds.
- Holding hands downward, rinse thoroughly, allowing the water to drop off fingertips.
- Repeat procedure, dry hands thoroughly with a paper towel.
- Turn off faucet using a clean paper towel so as not to re-contaminate your hands on the dirty faucet handle.

Hand Sanitizers

The CDC recommends the use of an alcohol based hand rub for decontaminating hands when soap and water hand washing is not available. It is recommended that personnel utilize the approved hand sanitizer and skin protectant, to kill germs on their skin and to provide additional protection against disease causing germs.

Medical Waste

Medical waste is any waste generated at an emergency scene. Proper disposal depends on whether such waste is contaminated, liquid, solid, or sharp. The purpose of this section is to ensure all department personnel can identify hazardous medical waste and deal with it in a safe manner.

Medical waste contaminated, or suspected of contamination, with blood or OPIM shall be treated as infectious waste. Solid contaminated waste shall be placed in a red, biohazard-labeled plastic bag and disposed of into infectious waste containers located in the transporting ambulance or at the receiving hospital. Disposable equipment shall be disposed of as contaminated waste after patient use. Non contaminated waste such as packaging for such supplies as IVs, 4x4s, and tubing should be disposed of in any available garbage container.

When sharps containers become full, they shall have the lid properly secured and disposed of at the receiving emergency department. **Sharps containers are not to be left in the medical supplies rooms.**

Apparatus

An apparatus that has been contaminated by blood or OPIM shall be decontaminated through cleaning and disinfecting. Environmental surfaces that have become soiled with blood or OPIM must be cleaned and disinfected using DisCide® wipes and/ or the use of the E- Mist disinfection machine. Gloves shall be worn when decontaminating ambulances.

As part of the daily apparatus check-out, all interior surfaces of the apparatus should be inspected for signs of contamination. Any surface that shows signs of contamination should be immediately disinfected and decontaminated. If a mop is used in the process, the mop head should be disposed of or soaked in a solution of bleach and water, 1:9, for at least an hour. In addition to the decontamination of apparatus “as needed”, all ambulances will be thoroughly disinfected and decontaminated each Sunday as part of regular apparatus weekly inspection.

E- Mist Disinfection Machine

The E- Mist disinfection machine will be stored in the medical supply room at Station 1. It is the responsibility of the Master Paramedic assigned to station 1 to ensure that the E- Mist disinfection machine is properly operated and maintained per manufacturers’ recommendations during the Sunday decontamination. It will be the responsibility of the user in all other instances of application that the disinfection machine is properly operated and maintained per manufacturers’ recommendations. The EMS Captain is responsible for battery maintenance and supplying a disinfection solution. The specific solution supplied for the E- Mist disinfection machine will not be used for any other purposes.