

Transmission of Infectious Disease Agents

Recommendations and Standards for Public Safety and EMS Services

September 2014

The United States EPA, FDA, and OSHA have promulgated rules and regulations designed to protect emergency care victims and the workers that attend to them from exposure to infectious disease causing agents. All three agencies recognize the “*Universal Precaution Doctrine*”. This standard states that until proven otherwise, all victims are considered to be infected with transmittable disease causing microorganisms and should be treated as such. Of major concern are blood-borne agents that may cause certain diseases such as herpes simplex virus, hepatitis b and c viruses, streptococcus and staphylococcus and other transmittable agents that may cause diseases such as meningitis, respiratory infections such as SARS and others. Of current concern is transmission of the Ebola and other hemorrhagic viruses.

The following guidelines will assist public safety and EMS personnel in reducing the chances of transmission of these agents between victims, health care workers and their family members at home.

Hand washing

Hands should be washed frequently, and *always* after victim contact or contact with blood or bodily fluids. In addition, hands must be washed immediately after the handling of equipment used to treat victims. It is of utmost importance to wash the hands immediately after removing gloves because microbes grow rapidly on gloved hands due to the warm, dark, moist environment created by the use of the gloves. According to CDC guidelines, FDA approved antimicrobial a waterless skin sanitizer such as Opti-Shield NR® is appropriate for all healthcare and emergency care providers in the absence of soap and running water facilities. *Be aware that some waterless skin sanitizers are highly flammable and may not be safe for storage in vehicles that may reach elevated temperatures such as police vehicles stored in direct sunlight. Always follow label instructions as instructions vary from product to product and not following instructions can cause the product to fail to perform its intended purpose.*

Personal Protection Equipment

When handling bleeding victims or blood spills or when cleaning and disinfecting contaminated equipment or instruments the use of protective devices such as gloves, eye and respiratory protection devices are required by the OSHA Blood-borne Pathogen Standard. *It is important to remember that washing or sanitizing hands immediately after removing gloves is paramount. Pathogens grow quickly underneath gloved hands due to the dark, moist and warm environment. Wearing gloves for as little as fifteen minutes can triple the numbers of microorganisms present on hands.*

Medical Equipment / Environmental Surface Disinfection and Cleaning

Emergency care equipment such as monitors, stretchers, backboards, and other patient care devices should be maintained in a clean, disinfected environment. Patient care devices must be cleaned and disinfected regularly using an EPA (HC in Canada) approved disinfectant. The basic recommendation is for terminal cleaning and disinfection every 24 hours. Between patient uses, those devices that were used on patients and any surfaces spattered with blood or bodily fluids must

be re-cleaned and disinfected. *Because ambulance compartment counters, medical devices and equipment used by EMS units is inherent with corners, cracks and crevices where bodily fluids and blood can seep during hectic procedures, the use of course trigger spray bottle applicators is prudent so as to force the liquid into these tiny, hard to reach, areas and flush out debris where it can be wiped away.* Surfaces should be wiped (preferably using a microfiber cloth) and maintained dry.

Instrument Disinfection

Instruments such as laryngoscope blades, bandage and trauma scissors, hemostats, and other similar reusable devices should be pre-rinsed under running tap water, cleaned and disinfected between each use. The use of an ultrasonic cleaning device containing undiluted Opti-Cide-3 solution will both clean and disinfect in 2 minutes. These devices should be rinsed, wiped dry and stored inside of a clean container until next use.

Disposable Instruments and Devices

Devices and instruments designated as single-use or disposable must not be reused. Unless splattered or infected with visible blood or bodily fluids many used items can be disposed of in the ordinary trash. Examples of those devices that should always be considered contaminated and treated as infectious waste even if free of visible blood or bodily fluids are; needles, syringes, scalpel blades, disposable scissors or other sharp instruments that may cause injury or spread infectious agents, endotracheal tubes, used disposable suction canisters, suction catheters, syringes, burn sheets and OB kits.

Infectious Waste Disposal

Infectious waste consists of those items that are spattered with blood or other potentially infectious bodily fluid or excrement. Infectious waste items should be disposed of according to department or facility policy in accordance with local requirements.

Questions or assistance regarding disinfection, decontamination or sterilization procedures can be addressed by calling toll-free 1-888-253-2536.