TITLE
EMERGENCY MEDICAL SERVICES CLEANING AND DISINFECTING, MEDICAL EQUIPMENT AND VEHICLES

OBJECTIVES
- To establish the criterion for cleaning and disinfecting medical equipment within Alberta Health Services (AHS), Emergency Medical Services (EMS).
- To prevent the transmission of micro-organisms, to reduce the incidence of infection and to promote the health and safety of patients, staff, and visitors.

PRINCIPLES
AHS EMS is committed to protecting patients and staff from infectious diseases stemming from exposure to blood and body fluids.

APPLICABILITY
Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS
1. General Cleaning
   1.1 General cleaning is required when environmental surfaces and equipment that have been in contact or contaminated during patient care. This includes after each patient care episode.
   1.2 Cleaning and disinfecting will occur in designated areas.
1.3 When no visible soiling is present, **One Step Cleaning** is sufficient.

1.4 When visible soiling is present, **Two Step Cleaning** is required.

1.5 When using **disinfectants**, Manufacturer’s instructions must be followed.

1.6 When cleaning medical equipment, classify using **Spaulding Classification System**.

2. **Medical Equipment Bags**

2.1 Special attention to detail is required to accurately determine cleaning requirements when cleaning contaminated medical bags following:

   a) cardiac arrest
   b) rapid sequence intubation
   c) trauma with a prehospital index score of 4 or higher
   d) other events that result in gross contamination

3. **Information Technology Devices**

3.1 IT devices will be cleaned and disinfected after each use by following the manufacturer recommendations.

3.2 IT devices will be cleaned and disinfected by following the manufacturer recommendations prior to being sent in for servicing or repair.

4. **Deep Cleaning**

4.1 Ambulances and support vehicles will be deep cleaned every 6 months or more often as required.

4.2 Enhanced Cleaning and Disinfecting will occur when:

   a) Contamination with blood or body fluid, chemical or hazardous substance occurs in locations that are difficult to access or require disassembly to clean
   b) Volume of contamination is more than 2 litres
   c) Estimated time to clean the area will be one hour or more
5. **Blood and Body Fluid Spills**

5.1 Spills must be cleaned as soon as practical.

6. **Infectious Disease Outbreaks**

6.1 Following transport of a patient from a facility with a respiratory outbreak normal cleaning and disinfecting procedures are to be used.

6.2 Following transport of a patient from a facility with a gastrointestinal outbreak due to *clostridium difficile*, hypochlorite solution (10% solution) or accelerated hydrogen peroxide (4.5% solution) will be used to disinfect contaminated surfaces.

**DEFINITIONS**

**Disinfection** means inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Medical equipment/devices must be cleaned thoroughly before effective disinfection can take place.

**General cleaning** means physical removal of foreign material (e.g. dust, soil) and organic material (e.g. blood, secretions, excretions, microorganisms) through the use of water, detergents and mechanical action. Cleaning physically removes, rather than kills microorganisms.

**One Step Cleaning** means process of wiping a surface once with a disinfectant towel. This process is only permitted if surface is not visibly soiled.

**Spaulding Classification System** means a strategy for sterilization or disinfection of inanimate objects and surfaces based on the degree of risk involved in their use. The three categories are critical, semi critical, or noncritical. The system also established three levels of germicidal activity for disinfection (high, intermediate, and low).

**Two Step Cleaning** means a two step, or ‘wipe twice” process is used to clean and then disinfect surfaces. First wipe surfaces thoroughly to clean the surfaces of visible organic material (dirt you can see) and then wipe again with a clean cloth saturated with disinfectant to remove invisible microorganisms (things you can not see). Organic materials that are not properly removed during the first step may inactivate the disinfectant used in the second step, therefore both steps are essential.
REFERENCES

- Alberta Health Services Governance Documents:
  - Cleaning and Disinfecting, Medical Equipment and Vehicles Procedure (#PS-EMS-04-01)

- Non-Alberta Health Services Documents: