



TITLE

PREVENTATIVE MAINTENANCE STANDARDS FOR MEDICAL EQUIPMENT

SCOPE

Provincial: Emergency Medical Services

DOCUMENT #

PS-EMS-01-03

APPROVAL AUTHORITY

Senior Program Officer, Emergency Medical Services
Chief Paramedic, Emergency Medical Services
Senior Medical Director, Emergency Medical Services

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SPONSOR

Provincial Director, EMS Logistics and Support

REVISION EFFECTIVE DATE

Not applicable

PARENT DOCUMENT TITLE, TYPE, AND NUMBER

Operating Emergency Medical Services Vehicles Policy
(#PS-EMS-01)

SCHEDULED REVIEW DATE

September 16, 2017

NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- To outline Business Standards and Operational Support (BSOS) responsibilities to ensure Emergency Medical Services (EMS) equipment is maintained in a state of readiness to comply with Alberta Health Services (AHS) policy requirements, legislative requirements and accreditation requirements.
- To define the process for performing and documenting scheduled equipment servicing / inspections.
- To define the process for reporting equipment deficiencies and for requesting maintenance and repairs.

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. Preventative Maintenance Standards

- 1.1 Medical equipment will be maintained in accordance with the manufacturer's recommendations.

- 1.2 Equipment requiring **preventative maintenance** inspection or service will be scheduled in accordance with the manufacturer's recommendations.
- 1.3 All pieces of equipment requiring preventative maintenance will be inventoried and recorded in an equipment maintenance database.
- 1.4 The inventory number of specific inventoried piece of equipment will be documented by practitioners during the **monthly drug expiry check** process.
- 1.5 Medical equipment requiring daily **testing / calibration** will be specifically named in the daily *Equipment Check Sheet* for each vehicle carrying this piece of equipment (see the *Emergency Medical Services Vehicle and Equipment Readiness Procedure*).
 - a) The testing / calibration procedure will be included in the daily *Equipment Check Sheet*.

2. Requirements for Preventative Maintenance

- 2.1 The Supervisor – Fleet, Equipment and Supply or their designate for each EMS zone/division will coordinate the preventative maintenance Service / Inspections.
- 2.2 The maintenance duties will be performed by either BSOS employees or by Clinical Operations Employees trained by BSOS employees for the following equipment:
 - a) Multilevel patient stretchers as follows:
 - Annually for EMS zones or divisions with call volumes less than 10,000/year
 - Biannually for EMS zones or divisions with call volumes greater than 10,000/year but less than 50,000/year
 - Quarterly for EMS zones or divisions with call volumes greater than 50,000/year.
 - b) Stair Chairs – Annual Service / Inspection
 - c) Scoop Stretchers – Annual Service / Inspection
 - d) Side stretcher bar and floor fasteners for the multilevel cot – Annual Service / Inspection
 - e) Main suction system and portable suction – Annual Service / Inspection
- 2.3 Contracted manufacturer trained technicians, or AHS Biomed Technicians, will be responsible for the annual preventative maintenance Service/Inspection for the following equipment:
 - a) Cardiac monitors/defibrillators

- b) IV Pumps
 - c) Ventilators
- 2.4 Contracted vendors responsible for **deep cleaning** EMS vehicles will receive EMS training and will be responsible for cleaning, disinfecting, and performing the Service/Inspection for backboards. (See to *Emergency Medical Services Cleaning and Disinfecting Vehicles and Medical Equipment Procedure*)

3. Responsibilities for Medical Equipment Maintenance

3.1 Monthly Activities

- a) The Supervisors of Clinical Operations for each zone or division will ensure a monthly drug expiry check has been completed on all vehicles assigned to their zone or division (See the *Vehicle and Equipment Readiness Procedure*).
- b) The Supervisor – Fleet, Equipment and Supply or their designate for each EMS zone/area will, in conjunction with the Provincial Equipment Coordinator as required:
 - Determine which pieces of equipment are due for a scheduled preventative maintenance service/inspection.
 - Review the report on the location of all inventoried equipment, done during the most recent monthly check process.
 - Arrange for replacement of the equipment and the transfer of equipment to the designated service/inspection location.
 - Ensure medical equipment is cleaned and disinfected before it is exchanged for replacement item.
 - Document the service/inspection date for each piece of equipment when it is returned from the service location.
 - Document the shortfalls, delays, or other errors to evaluate the effectiveness of these preventative maintenance standards.

4. PERFORMANCE MEASURES

- 4.1 Random audit of the Preventive Maintenance records to ensure inspections and service is performed on or about the scheduled date.

DEFINITIONS

Deep cleaning means a thorough cleaning process that involves cleaning and inspecting all equipment and supplies and systematically cleaning and disinfecting all surfaces in the front cab, rear patient compartment, inside cabinets and outside lockers.

Equipment check means a customized list of items which require inspection and/or testing prior to equipment being deemed in a state of readiness.

Health care professional means an individual who is a member of a regulated health discipline, as defined by the Health Disciplines Act or the Health Professions Act, and who practices within scope or role.

Monthly drug expiry check means once a month (the 25th of each month), all medications, solutions and sterile packaged medical supplies will be checked for expiry dates and package integrity. The form completed during the Monthly Drug Expiry Check will also be used to document the inventory number of each piece of inventoried medical equipment on each vehicle.

Preventative maintenance means regularly scheduled inspection or service for equipment to prevent the item from failing during critical situations.

Testing / calibration means a task required to prevent inaccurate readings or failure of critical pieces of equipment which are required to be accurate in order to be effective. These tests / calibrations are as determined by the equipment manufacturer/supplier.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Vehicle and Equipment Readiness Procedure* (#PS-EMS-01-01)
 - *Preventative Maintenance Standards For EMS Vehicles Procedure* (#PS-EMS-01-02)
 - *Managing Medications, Solutions and Medical Supplies Procedure* (#PS-EMS-05-01)
 - *Emergency Medical Services Cleaning and Disinfecting Vehicles and Medical Equipment Procedure* (#PS-EMS-02-01)
- Non-Alberta Health Services Documents:
 - Alberta Health & Wellness. (2008) Emergency Health Services Act – Overview. Retrieved from <http://www.health.alberta.ca/services/EHS-legislation.html>
 - Alberta Health & Wellness (2010) Ambulance Vehicle Standards Code. Retrieved from <http://www.health.alberta.ca/services/EHS-legislation.html>
 - Alberta Health & Wellness. (1999) Ambulance Equipment and Supplies Standards. Retrieved from <http://www.health.alberta.ca/services/EHS-legislation.html>
 - Accreditation Canada Emergency Medical Services Standards
 - Accreditation Canada Required Organizational Practices (ROPs) Preventive Maintenance Program

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