

TITLE

MANAGEMENT OF MEDICATIONS, MEDICAL SUPPLIES, AND INTRAVENOUS SOLUTIONS

SCOPE

Provincial: Emergency Medical Services

DOCUMENT

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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 the responsibilities for **medication management** within an Emergency Medical Services (EMS) setting, in accordance with Alberta Health Services (AHS) practices, legislative requirements, and Accreditation Canada requirements.

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

- Security and Storage Temperature of Non-Controlled Medications and Supplies**
 - All non-controlled **medications** and **medical supplies**, as well as syringes and needles, must be stored and locked in non-controlled medication and supply storage areas that are only accessible by authorized AHS or EMS **health care professionals**.
 - EMS health care professionals must store all non-controlled medications and medical supplies in accordance with the *Ground Ambulance Regulation* (Alberta) as well as the *Accreditation Canada Standards*.

- a) All EMS vehicles carrying medications and intravenous (IV) solutions must be stored in a climate-controlled environment where the temperature is maintained above 10 degrees Celsius (°C).
- b) Non-controlled medications and medical supplies must be stored in a pharmaceutical-grade refrigerator that is:
 - (i) used only to store pharmaceutical products;
 - (ii) routinely monitored following EMS Zone and site standard practices that have been set out by the EMS Business Standards and Operations Support division; and
 - (iii) equipped with electronic monitors, alarms, and backup power (where possible).
- c) EMS health care professionals must discard and replace all medications or solutions that have been frozen or exposed to freezing temperatures long enough to form ice crystals.

2. Routine Expiration Date Check Process

- 2.1 During each shift, EMS health care professionals must conduct a review of the **expiration dates** of all medications, solutions, and medical supplies that are carried in their kits and pouches.
- 2.2 If any expired or soon-to-be expired (i.e., within the current month) medication, solution or medical supply are identified, the EMS health care professional must:
 - a) place expired and soon-to-be expired medications in a designated area of the base station for retrieval by an EMS Supervisor or designate, or by EMS Business Standards and Operations Support personnel or designates; and
 - b) record all medications or medical supplies expiring in the next two (2) months using the EMS Fleet Equipment Management System (FEMS), or for contracted service providers, the service's routine practices.
 - (i) If the expiring medication is a controlled drug or substance, refer to the processes outlined in the AHS *EMS Controlled Drugs and Substances* Policy.
- 2.3 Direct delivery personnel must return expired and soon-to-be expired medications to the originating AHS pharmacy for disposal, or disposed of by those authorized, as outlined in the AHS *Ordering and Destroying Controlled Substances* Procedure.

3. Medication, Solutions, and Medical Supplies Packaging Integrity Checks

3.1 Packaging Integrity Shift Checks:

- a) EMS health care professionals must ensure the integrity of the **packaging** of medications, solutions, and medical supplies at the beginning of each shift.
 - (i) Medications or medical supplies with damaged packaging (e.g., torn or open) must:
 - never be used to provide patient care; and
 - be removed from **client service areas**, discarded, and replaced using routine practices as outlined in the *EMS Medication Administration Procedure*.

3.2 Prefilled Syringe Packaging:

- a) Boxes containing prefilled syringes must not be taken out of the box for storage in ground ambulance kits except when:
 - (i) storing prefilled syringes in specific Air Ambulance medical kits that have been designed with human factors engineering in mind and specifically for this purpose; and
 - (ii) risk reduction strategies are in place for Air Ambulance service providers to decrease the occurrence of medication errors.

4. High-Alert Medications

4.1 EMS health care professionals must adhere to the *AHS Management of High-Alert Medications Policy Suite*.

- a) **EMS high-alert medications** (HAMs) that are identified within the *EMS Medical Control Protocols (MCPs)* and within the *EMS Critical Care MCPs* are found on the EMS website.

4.2 All EMS health care professionals must be familiar with HAM awareness options, including:

- a) awareness of HAMs as part of clinical orientation;
- b) when available, completion of the AHS HAM MyLearningLink education module; and
- c) when available, familiarization with the HAM webpage on Insite.

- 4.3 Replacement stock of HAMs and HAMs not being used for active duty must be kept in **locked storage** at all times and not stored in client service areas where visible.
- 4.4 EMS business areas must ensure HAM compliance by working together to conduct EMS-specific HAM auditing as per the *AHS Management of High-Alert Medications* Policy Suite.

5. Hazardous Medications

- 5.1 **Hazardous medications** must be managed in accordance with the AHS *Hazardous Medication Personal Protective Equipment (PPE) Guide* and AHS *Hazardous Medication List* that are located on Insite.

DEFINITIONS

Client service areas means a space where patient care may be provided. For EMS this includes traditional client service areas such as Emergency Department waiting areas and hallways, as well as the patient compartment of a response or transport vehicle such as an ambulance (fixed wing, rotary or ground). This may also include an area where EMS kits and equipment have been assembled at the scene of an event.

Expiration date means a date printed by the manufacturer on the packaging of each medication vial/ampule and many types of medical supplies.

Hazardous medications means a medication for which research on humans or animals has shown that any to the substance has the potential to cause cancer, lead to a developmental or reproductive toxic effect or damage organs. Such medications are considered hazardous because their effects present risks for personnel.

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

High-alert medications means medications that bear a heightened risk of causing significant patient harm when used in error (Institute for Safe Medication Practices [ISMP], 2012).

Locked storage means a container, room, cabinet or other place where its accessibility is protected in a manner that deems it safe from any persons who do not have authorized admittance. It is the obligation of the EMS Zone or service to ensure such protection to the fullest extent possible.

Medical supplies means disposable items used directly in the care of a patient (e.g., needles, syringes, gauze, IV tubing).

Medication means any substance or mixture of substances manufactured, sold or represented for use in the diagnosis, treatment, mitigation or prevention of a disease, disorder or abnormal physical state, or its symptoms, in human beings, and restoring, correcting or modifying organic functions in human beings.

Medication management means a team-based approach to prevent and reduce patient safety incidents related to medications by addressing all areas of the medication management process from the medication order to preparation and dispensing to administration of the medication and ongoing monitoring of the patient.

Packaging means a sealed enclosure (paper, foil or plastic) designed to protect a medication's or medical supply's integrity.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Controlled Drugs and Substances Policy (EMS) (#PS-EMS-05)*
 - *EMS Critical Care Medical Control Protocols*
 - *EMS Medical Control Protocols*
 - *Management of High-Alert Medications Policy Suite (#PS-46)*
 - *Medication Administration Policy (#HCS-244)*
 - *Medication Administration Procedure (EMS) (#HSC-244-01)*
 - *Ordering and Destroying Controlled Substances Procedure (EMS) (#PS-EMS-05-02)*
- Alberta Health Services Forms:
 - *EMS Risk Management Form (#21268)*
- Alberta Health Services Resources:
 - *EMS Fleet Equipment Management System (FEMS)*
 - *Hazardous Medication List*
 - *Hazardous Medication Personal Protective Equipment (PPE) Guide*
- Non-Alberta Health Services Documents:
 - *Controlled Drugs and Substances Act (Canada)*
 - *Emergency Health Services Act and Overview (Alberta)*
 - *Emergency Medical Services (EMS) and Interfacility Transport Standards (Accreditation Canada Qmentum Program)*
 - *Ground Ambulance Regulation (Alberta)*
 - *Medication Management Standards (Accreditation Canada Qmentum Program)*

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