



TITLE

MANAGING MEDICATIONS, SOLUTIONS AND MEDICAL SUPPLIES

SCOPE

Provincial: Emergency Medical Services

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EMS Controlled Drugs and Substances Policy (#PS-EMS-05)

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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 provide detailed direction for implementation of the Emergency Medical Services (EMS) *Controlled Drugs & Substances* Policy, policy elements.
- To outline the responsibilities for ensuring **medications**, solutions and medical supplies are managed in accordance with Alberta Health Services (AHS) policy requirements, legislative requirements and the Accreditation Canada (AC) 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

1. Medication, Solutions and Medical Supplies Expiry Date Checks

1.1 Medication Administration Expiry Check Process

- a) Prior to administering medications, solutions and **medical supplies** to patients, EMS **Health Care Professionals** will ensure that:
 - The **expiration date** has not been exceeded.
 - The medications, solutions or medical supplies that have been identified as expired are discarded and replaced using EMS Zone or service practices (see Procedure Element 5 - Disposal of

Unserviceable Controlled Substance, Non-Controlled Substances and Medical Supplies).

1.2 Routine Expiration Date Check Process

- a) EMS health care professionals will:
- Conduct a comprehensive review of the expiry dates of all medications, solutions and medical supplies that are carried in their kits and pouches.
 - Identify any medication, solution or medical supply as expiring within the current month.
 - Arrange for disposal and replacement of “soon to be expired” medications accordance to routine EMS Zone or service practices (see Procedure Element 5 - Disposal of Unserviceable Controlled Substance, Non-Controlled Substances and Medical Supplies).
 - Record all medications, solutions or medical supplies that will expire within the next two months using routine EMS Zone or service practice.

Note: When the expiring medication is a controlled substance, documentation must be kept using the **Controlled Substances Registry**.

- b) The manager who is in charge of fleet, equipment and supply for each EMS Zone or service or their designate will identify the number of medications, solutions or medical supplies that are due to expire in the next two months and will prepare the replacements accordingly.
- c) Expiry dates printed on the **packaging** of medications, solutions and medical supplies are displayed in several different formats. When documenting using the Controlled Substances Registry, packages with only month and year expiry dates will be entered as expiring on the last day of the month (e.g. May 2011 are entered as May 31, 2011).
- d) Special precautions will be taken when managing expiration dates for the medications that are light sensitive and for medications where multiples are supplied within the same packaging. Examples include Salbutamol, Ipratropium Bromide and the Normal Saline Minibags. Practice will include following the manufacturer’s suggested methods.
- e) When possible, quantities of the following medications will be limited to the minimal amount required and only supplied in services that have grossly longer than usual transport times or where egress may be delayed for longer period of times due to extreme environmental factors. These medications will not be stored in **client service areas**:

- FentaNYL with a total concentration dose great than 100mcg per ampule or vial.
- Morphine with a total concentration dose great than 15mg per ampule or vial in adult care areas and 2mg per ampule or vial in pediatric areas.

2. Medication, Solutions and Medical Supplies Packaging Integrity Checks

2.1 Packaging Integrity Shift Checks

- a) At the commencement of their shift, or as close to the commencement as is possible, EMS health care professionals will ensure the integrity of the packaging of medications, solutions and medical supplies.
- b) When medications, solutions or medical supplies are discovered with damaged packaging (torn or open etc.), EMS health care professionals will ensure that the damaged items:
 - Are never used to provide patient care.
 - Are removed from client service areas, discarded and replaced using routine EMS Zone or service standard practice (see Procedure Element 5 - Disposal of Unserviceable Controlled Substance, Non-Controlled Substances and Medical Supplies).

2.2 Prefilled Syringe Packaging

- a) Boxes containing prefilled syringes will not be taken out of the box for storage in ground ambulance kits. The boxes provide an important patient safety guard when storing and administering medications.
- b) An exception may be made when storing prefilled syringes in specific Air Ambulance medical kits that have been designed with human factors engineering in mind specifically for this purpose.
- c) Air Ambulance service providers that use the Air Ambulance prefilled syringe kits must ensure that risk reduction strategies (see Procedure Element 9) are in place to decrease the occurrence of medication errors.

3. Management of Controlled Substances

3.1 Stocking, **Ordering** and Restocking of AHS EMS Controlled Substances (FentaNYL, Ketamine, LORazepam, Midazolam and Morphine).

- a) The quantities of replacement stock of controlled drugs for each EMS Zone, area or service shall not exceed the following levels:
 - the amount of controlled drugs used during the average month, plus

- the amount of controlled drugs expected to expire in the upcoming month

Replacement stock of controlled substances and controlled substances not being used for **active duty** will be kept in **locked storage** at all times and will not be stored in client service areas in a way that is obviously visible.

- b) On a regular basis as per the EMS Zone or service's standard practice and based on a time period that makes sense depending on the frequency of use, two EMS health care professionals will; verify, document and ensure that dual signatures are provided in the count of the replacement stock of controlled substances using the Controlled Substances Registry.
- c) Where possible, the EMS **Designated Administrator** or designate or **EMS Medical Director (MD)** will use a standardized requisition form to order controlled substances from an AHS hospital pharmacy or from a local pharmacy following AHS Zone or service's practices.
- d) Verbal and telephone orders for restocking controlled substances and for **High-Alert Medications (HAM)** are discouraged. Verbal or telephone orders will only be accepted by a health care professionals where standardized requisition forms are not available.
- e) When replacement stock is picked up from the ordering pharmacy, the EMS designated administrator or designate or EMS medical director and pharmacy staff are responsible to:
 - provide appropriate identification
 - present the requisition form
 - verify the count of the drugs being transferred to EMS stock
 - Document in the Controlled Substance Registry when the controlled substance was issued by the pharmacy. This will include the signature of the pharmacy staff member.
- f) Where possible, the controlled substances will be transported directly to the designated locked storage. When the EMS designated administrator or designate or EMS medical director needs to stop at multiple stations or hospitals, during the delivery process, the controlled substances will be locked in storage in a concealed area that is not a client service area, and locked in the transport vehicle.
- g) When controlled substances are placed within locked storage, two EMS health care professionals are required to verify the count of the new drugs being added. This number will be compared against the requisition form.

The EMS health care professionals will ensure dual signatures are documented within the Controlled Substance Registry and will verify that the revised count contained in locked storage area reconciles.

3.2 Securing Controlled Substances

- a) Controlled drugs that are assigned to EMS facilities including stations, EMS vehicles or to EMS health care professionals will be secured in the following ways at all times:
 - The Paramedic must ensure that the controlled substance is secure on their person within a pouch, or placed in locked storage within the EMS facility including stations or EMS vehicles. Only paramedics who are assigned to active duty will be allowed to carry controlled substances.
 - Controlled substances that are locked within EMS facilities including stations or EMS vehicles cannot be stored within client service areas.
- b) Only employees who have received authorized status by the EMS Zone or service such as an employee number or an ID card will have access to the locked storage area that contains Controlled Substances.
 - EMS Zones or services will ensure the security of Controlled Substances when employees who once were authorized to access the Controlled Substances are no longer authorized.

3.3 Administering Controlled Substances

- a) Only EMS health care professionals registered with Alberta College of Paramedics as a paramedic will be allowed to administer controlled substances.

3.4 Documentation for Controlled Substances

- a) Dual signatures are required for all documentation, [the Patient Care Record (PCR) and the Controlled Substance Registry], either paper or electronic, relating to; the count of controlled substances, the administration and wastage of controlled substances, the disposal of controlled substances and the replacement of controlled substances. The following information regarding signatures is important:
 - All EMS health care professionals can witness and sign for controlled substances.
 - For electronic documentation; such as electronic documents patient care record (ePCR) and automated medication dispensing systems (Pyxis™), two EMS health care professionals, individually signing into the documentation process with a protected password, are considered the equivalent of a dual signature.

- The EMS health care professionals will ensure that their electronic document (i.e. ePCR, Pyxis™) login and passwords are kept confidential as per AHS *Information Technology Acceptable Use Policy*.
- b) Controlled substances assigned to EMS facilities including stations, EMS vehicles or EMS health care professional's drug pouches are counted and dual signatures are entered by both off-going and on-coming EMS health care professionals at the start and end of each shift using the Controlled Substances Registry.
- c) In situations when there is no on-coming crew, the count is verified by both EMS health care professionals. Verification shows that the controlled substances have been secured in locked storage and is documented and dual signatures are provided using the Controlled Substances Registry by both EMS health care professionals.
- d) In situations where a single EMS health care professional does not have immediate personnel replacement, the count of controlled substances is verified by another EMS health care professional as soon as possible. In these cases, the EMS health care professional's immediate supervisor will be informed and the details are documented in the Controlled Substances Registry.
- e) In order to ensure the tracking of Controlled Drugs, the details of administration will be documented on the PCR. Documentation will include:
- time drug given (24 hour clock)
 - patient name (If the patient name is unknown, use the identification; either the name or numbers used by the receiving hospital)
 - event number
 - drug name
 - amount administered
 - amount wasted (if any) signed by both EMS healthcare professionals
 - route that the drug has been given
 - physician name and signature (if required)
 - signature and employee number of the paramedic administering drug
- f) Contracted service providers will use an *EMS Risk Management Form* to document controlled substance breakage.

- g) Direct Delivery services will use the **AHS Reporting and Learning System for Patient Safety (RLS) Report RLS Report** to document any controlled substance breakage. RLS reports will be submitted in accordance to the *AHS Reporting of Clinical Adverse Events, Close Calls and Hazards Policy #PS-11*.
- h) A **Risk Management Form**, a RLS Report and a law enforcement agency report must be completed when controlled substances are discovered to be missing; regardless if the loss is by theft or misplacement.
- i) The designated administrator or designate and the medical director will:
- (i) receive all reports of loss or theft from any source
 - (ii) report the loss or theft to the local law enforcement agency immediately
 - (iii) record and report all incidences of loss or theft of controlled substances in writing to Health Canada within ten days of discovery, by submitting a Health Canada, Loss or Theft Report Form for Controlled Substances and Precursors
 - (iv) submit a report using RLS or an AHS Risk Management Form.
 - (v) the report will include the following information:
 - description of occurrence; how the loss or theft was identified
 - type of loss or theft (break and entry, pilferage, loss unexplained, armed robbery, grab theft, loss in transit, other)
 - time of occurrence
 - place of occurrence
 - location of occurrence
 - substance involved
 - total dose or approximate
 - number of vials
 - EMS health care professionals or staff license numbers and signatures
 - Designated administrator's signature.

- j) Replacement of controlled substances administered to patients or discarded due to breakage will be documented in the Controlled Substances Registry by the EMS health care professional responsible for the replacement of the controlled drugs.
- k) Replacement of Controlled Drugs that are due to expired dates is the responsibility of the designated administrator or designate and the medical director following routine EMS Zone practice (see Procedure Element 1.1 Medication Administration Expiry Check Process).
- l) Replacement of Controlled Drugs will be documented using the Controlled Substance Registry and will include:
- patient's surname and first name (if the patient's name is unknown, use the identification 'either the name or numbers' used by the receiving hospital)
 - event number
 - wastage amount unit if applicable (for example: 5 mg)
 - Signatures and employee numbers of the EMS health care professional seeking replacement of the medication and the EMS health care professional replacing the medication (when using Pyxis™, this is the EMS health care professional witnessing the replacement).
- m) The Controlled Substance Registry must meet the following requirements in accordance to Controlled Drugs and Substances Act Section 56:
- maintain all records submitted by paramedics
 - keep information for a minimum of 2 years. AHS direct delivery providers must follow the *AHS Records Retention Schedule*
 - make the information available to Health Canada upon request
- n) All patient record documentation associated with medication administration will follow *AHS Dangerous Abbreviations, Symbols and Dose Designations Policy*.

4. Medication and Solution Administration

- 4.1 Prior to administration, in order to assure safe, accurate and effective medication administration, the EMS health care professional will confirm that the following are conducted:
- a) Review the patient's allergy status
 - b) Comprehend the context of the medications

- c) Identify the purpose
- d) Confirm the dose
- e) Understand the mechanism of action
- f) Recognize possible or potential side-effects and/or adverse reactions
- g) Be aware of potential drug interactions
- h) Prepare medication immediately prior to administration
- i) Prepare oral solutions using oral syringes that are not compatible with intravenous tubing.

Note: It is acceptable to use prefilled medications only when properly labelled and the “seven rights” of medication administration are followed prior to administration (see Procedure Element 4.4).

- 4.2 Intravenous solutions with medications added must be labelled with, at a minimum; the name of the patient, the name of the medication, the base solution (where applicable), the total amount of medication additives, and the total volume of the final product.
- 4.3 Maintain medications using labelled packages until administered.
 - a) If medication is altered (crushed, reconstructed, divided dosage, and/or removed from vial) a label will be affixed to medication.
 - b) Label the drawn up medication, until point of administration, with the following:
 - patient name
 - medication name and strength
 - date and time the medication is prepared
 - name of EMS health care professional who prepared the medication.
- 4.4 Before, during and after administering any medication, staff shall verify that the “seven rights” of medication administration are followed:
 - a) Right patient
 - b) Right medication (right expiry date)
 - c) Right dose
 - d) Right time

- e) Right route
- f) Right purpose
- g) Right documentation.

4.5 Patient Identity Verification

- a) EMS health care professionals will follow the *AHS Patient Identity Verification Policy* before providing a **Health Service**.
- b) The direction of the AHS Patient Identity Verification Policy PS-06 facilitates the provision of safe, quality care that verifies that the correct person receives the correct Health Service. Key points of the policy are as follows. EMS health care professionals will:
 - request at least two patient identifiers from the patient and/or by using an Identification Source
 - AHS approved two patient identifiers include:
 - the Patient's first and last name
 - the patient's Date of birth (DOB)
 - a Unique Lifetime Identifier (ULI)
 - a Personal Health Number (PHN)
 - the Patient's Medical Record Number (MRN)
 - the Patient identification barcode
 - a Government issued identification number
 - the Patient's address
 - a recent patient photograph (must be an approved photo using criteria that is outlined in the AHS Patient Identity Verification Policy PS-06)
 - Use Active Communication to verify the patient's identity and explain the Health Service that is to be provided unless prevented by the patient's clinical condition or other communication considerations such as language.
- c) Emergency Situations
 - When unable to verify the patient's identity, AHS EMS health care professionals (direct delivery or contracted service providers) will not

refuse or delay a **Health Service** to a patient in an **Emergency Situation**.

- In an Emergency Situation, the patient will be assigned to a temporary, unique identity number as provided by hospital admissions or when not transported to hospital, using EMS Zone or service's standard practice – this section is not in final draft. The temporary identity will be used until the patient's identity is verified.

4.6 Invasive Infusion Line and Tube Verification

- a) When establishing and/or monitoring an intravenous (IV), EMS health care professionals will label and/or trace the IV line in accordance to the *AHS Invasive Infusion Line and Tubing Verification Policy*.
- b) The direction of the AHS Invasive Infusion Line and Tubing Verification (Level 1) Policy PS-15 is to establish consistent practices that minimise the risk of inadvertent misuse or connection of all infusion therapy lines. Key points of the policy are as follows:
 - Appropriately labelled IV lines are intended to alert staff if they are about to access an IV line accidentally.
 - It is expected that all infusion lines including intravenous, enteral, epidural and central lines will be labelled and traced.
 - The EMS health care professional who initiates the line will label it. If a pre-established IV line is discovered to not be labelled the EMS healthcare professional who discovers the unlabelled line is expected to do the appropriate labelling to the best of their ability.
 - Lines will be traced immediately following initiation and also:
 - when clinical care is handed over
 - when solution bags &/or devices are changed
 - prior to the administering of any medication through an infusion line.
 - Specific AHS provincial labels will be used following EMS Zone or service's standard practice.
 - The IV line label will be placed as close to the patient as possible- above the injection port, closest to the insertion point of the line into the patient.
 - IV line label information must include:
 - the date and time initiated or changed

- the infusion being infused through the line at the time (i.e. Normal Saline etc.)
- the type of line; intravenous, central etc.
- Secondary infusions must also be traced and labelled.

4.7 Monitoring Medication Effects

- a) Following medication administration, the patient's symptoms and response to the medication(s), will be evaluated. Details include:
 - effectiveness
 - side effects
 - interactions
 - adverse reactions

5. Disposal of Unserviceable Controlled Substance, Non-Controlled Substances and Medical Supplies

5.1 Controlled Substances

- a) Controlled substances that have been drawn up to be administered to a patient but have not been given to the patient are to be wasted in front of a witness. Whenever possible the witness will be an EMS health care professional. Both persons will ensure dual signatures are provided on the PCR and the Controlled Substance Registry documenting the wastage.
- b) In extenuating circumstances where an EMS health care professional is not available to act as a witness, then a second person, other than the patient who is on location will be asked to act as a witness. It is important to ensure that the non-EMS health care professional understands their role in witnessing the act. The EMS health care professional will clearly document the witnesses' name, role, and contact information on the PCR and the Controlled Substance Registry.
- c) For situations when there is no witness available, the EMS health care professional will inform their immediate supervisor and waste the remaining controlled substance according to their EMS Zone or service's standard practice. The details will be documented in the PCR and the Controlled Substance Registry.
- d) Expired controlled substances or controlled substances with damage to the packaging are returned to the designated administrator or designate or medical director following routine EMS Zone or service's practice. These medications must be returned to the pharmacy of origin for

disposal. Two EMS health care professionals will ensure dual signatures are documented within the Controlled Substance Registry detailing the expiry or damaged package.

5.2 All Other Medications, Solutions and Medical Supplies

a) Non-controlled substances:

- Do not discard unused or **Unusable Medications** (including large volume solutions) in regular waste or via regular plumbing.
- All needles and syringes and medication vials will be placed in sharps containers.
- All unsoiled, non-sharp medical supplies shall be disposed of in the garbage.
- Soiled, non-sharp medical supplies shall be disposed of in **Biohazard Waste Containers**.

6. Securing Non-Controlled Medications and Supplies

6.1 Securing and Storage Temperature of Non-Controlled Medication and Supplies

- a) All non-controlled medications and solutions as well as syringes and needles will be stored and locked in non-controlled medication and supply storage areas that are only accessible by authorized AHS or EMS (direct delivery or contracted service providers) personnel.
- b) EMS health care providers will manage EMS vehicles in accordance to the *Operating EMS Vehicles Policy*. Key information for medication management includes:
 - Ensure EMS vehicles are locked and the keys are removed when in an unsecured area (e.g. areas accessible by the public, hospital ambulance bay, etc).
 - Ensure that the anti-theft switch (if equipped) is engaged when the EMS vehicle is left idling, the keys are removed and the doors are locked. If the vehicle is not equipped with an anti-theft switch, remove the door keys and lock the vehicle.
 - Keep the keys on their person at all times, when removed from the vehicle.

6.2 Storage Temperature of Non-Controlled Medications and Supplies will include the following:

- a) All EMS vehicles carrying medications and IV solutions will be stored in a climate controlled environment where the temperature is maintained above 10°C.
- b) All EMS vehicles carrying medications and IV solutions will maintain an internal temperature of 20°C despite operating in outdoor temperatures between minus 35°C and plus 35°C.
- c) For medication requiring refrigeration, the following AHS Pharmacy policies will be followed:
 - *Pharmacy Services Procurement, Inventory and Service Performance Policy*
 - *Pharmacy Services Receiving & Storage of Pharmaceuticals Policy*
- d) Important aspects includes, the refrigerator will:
 - not be used to store non-pharmaceutical products (e.g. food, beverages)
 - will be routinely monitored following EMS Zone and service's standard practice to ensure appropriate temperatures are maintained. Monitored temperatures will be documented using the *Pharmacy Services Temperature Monitoring Log* or another standard format
 - be of pharmaceutical grade, where possible
 - be equipped with electronic monitors, alarms, and back-up power, where possible
- e) Pharmaceutical storage areas shall be maintained (i.e. temperature, humidity, and cleanliness) as follows:
 - room temperature storage at 20°Celsius
 - refrigerated storage between 2 and 8°Celsius
 - freezer storage between -10 and -20°Celsius
 - EMS health care providers will discard and replace all medications or solutions that have been frozen or exposed to freezing temperature long enough to form ice crystals (see Procedure Element 5 - Disposal of Unserviceable Controlled Substance, Non-Controlled Substances and Medical Supplies).

7. High-Alert Medications

7.1 High-Alert Medications (HAM) are medications that bear a heightened risk of causing significant patient harm when they are used in error. The following points are important:

- a) When implemented, EMS health care professionals will abide by the AHS *Management of HAM Policy* and the AHS *Management of HAM Procedure*.
- b) EMS health care professionals will use the HAM that are identified by the *Institute for Safe Medication Practices (ISMP)* and supported by Accreditation Canada and AHS HAM requirements.
- c) The AHS HAM list that are identified is the AHS EMS Medical Control Protocols are Enoxaparin, Rocuronium, Succinylcholine, Oxytocin, EpiNEPHrine, MetoPROLOL, Ketamine, Midazolam, Amiodarone, Calcium Chloride , Magnesium Sulfate injectables and D50W.

8. High-Alert Medications Staff Familiarization

8.1 EMS health care professionals will be familiar with HAM. Awareness options include:

- a) Awareness of HAM as part of clinical orientation.
- b) When available, completion of the AHS HAM My Learning Link education module.
- c) When available, familiarization with the HAM section on Insite.
- d) Accessing resources which identify AHS medications such as reviewing this document.

9. High-Alert Medication Risk Reduction Strategies

9.1 HAM can cause significant patient harm when selected in error and therefore require specific risk reduction strategies. The following are risk reduction strategies that AHS EMS (direct delivery and contract service providers) will follow:

- a) Standardized medication labels will be placed on all medication containers. Labels include the generic name and where applicable either **TALLman Lettering** or the trade name.
- b) **Read-alike medications** shall be labelled using TALLman Lettering as per the provincial *Pharmacy Services Tall Man Lettering Policy*.
- c) **Look-alike medications** will be physically separated on the condition that the separation is not likely to introduce a new risk for error as a

result. When physical separation is not possible, local safeguards will be put into place to otherwise identify HAM as look-alike to avoid selection errors.

- d) Neuromuscular blocking agents will be stored segregated from other medications and differentiated by auxiliary labelling.
- e) Automated dispensing cabinets will notify the user to additional auxiliary or cautionary alerts as indicated.
- f) Separate storage bins will be used for the different medication strengths and are color coded by route of administration.
- g) HAM Icon labels will be placed on all storage bins.
- h) HAM will not be stored in client service areas in a way that is visible to the patient.
- i) Whenever possible, EMS health care professionals will do an **independent double-check** of HAM before administration. This will include; verifying the patient's name, verifying the medication, expiry date, concentration, and the rate of infusion or line attachment. The details will be documented on the EMS PCR.

Note: When implemented, EMS health care professionals will follow the AHS *Independent Double Check* Policy.

10. General High-Alert Medication Information

10.1 The following is general HAM information:

- a) Replacement stock of HAM and HAM not being used for active duty will be kept in locked storage at all times and will not be stored in client service areas in a way that is obviously visible.
- b) AHS EMS (direct delivery and contracted service providers) follows the *Institute for Safe Medication Practice (ISMP) High-Alert Medication (ISMP) List*.
- c) See Procedure Element 5.2 (All Other Medications and Medical Supplies) for disposing of HAMs.

11. Nitrous Oxide

11.1 EMS health care professionals will monitor Nitrous Oxide using the Controlled Substance Registry or zone service vehicle equipment checklist. The following will be documented:

- a) the volume in **Pound-Per-Square Inch** (PSI) of Nitrous Oxide at the commencement or as close to the commencement of each shift as possible
- b) the time, date and PSI when restocking Nitrous Oxide
- c) EMS health care professionals will document Nitrous Oxide administration on the PCR including; the volume (PSI) prior to administration and the volume (PSI) after administration.
- d) Nitrous Oxide must be stored in an area with adequate ventilation as per the manufacturer's instructions. Adequate ventilation minimizes staff exposure to harmful gases in case of breakage.

12. Compliance

12.1 Designated Administrator or designate and the Medical Director will ensure that the following are met:

- a) Dates associated with Controlled Substance management reconcile
- b) Names associated with Controlled Substance management reconcile
- c) Quantities of Controlled Substances ordered and received reconcile
- d) Quantities of Controlled Substances in stock reconcile
- e) Quantities of Controlled Substances stored in EMS vehicles, stations, in pouches and on aircrafts reconcile
- f) Amounts of Controlled Substances that are dispensed to paramedics (to be carried on their person) reconcile
- g) Records of all unserviceable drugs that are returned to the originating pharmacy for destruction reconcile
- h) Records of the Controlled Substance Registry submitted by paramedics are maintained and reconcile
- i) Information regarding Controlled Substances are kept in accordance to Procedure Element 3.4 (I) (Documentation for Controlled Substances) and are available to Health Canada upon request
- j) Records of the quantity of Controlled Substances administered reconcile
- k) Records of the quantity of Controlled Substances wasted reconcile
- l) Incidents of loss or theft have been reported to the local law enforcement agency

- m) Incidents of loss or theft have been recorded and submitted to Health Canada within 10 days of discovery.

12.2 Audits

- a) By the end of each AHS fiscal year (March 31), designated administrator or designate and medical director will conduct and document annual audits, on a minimum annual basis to ensure that the procedure elements are being met.
- b) Audits shall commence within three months of the effective date of this procedure.

DEFINITIONS

Active Communication means that the person verbally states, spells and/or writes the identifiers (e.g., his/her name, date of birth) rather than confirming the identifiers as it is read to the Patient.

Active Duty means EMS Health Care Professionals are being paid by an EMS employer to actively participate in the provision of patient care or to actively respond to provide patient care when requested.

AHS Reporting and Learning System for Patient Safety (RLS) means an AHS online Reporting & Learning System for Patient Safety and is a quick and easy way for staff to document potential and actual safety issues. When you submit a Report, you are calling attention to safety issues so that they can be addressed. This valuable information will be used to manage, prioritize, and address system improvements.

Biomedical Waste Container means a rigid, puncture-resistant disposable container or cardboard box lined with a yellow plastic bag, displaying the "biohazard waste symbol" and is labelled "bio-hazardous" waste.

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.

Controlled Drugs and Substances Act means a drug specifically named in the federal Controlled Drugs and Substances Act the associated regulations (Narcotic Control Regulation, Benzodiazepines and Other Targeted Substances Regulation), and Alberta EMS section 56 exemptions.

Controlled Substances means a drug identified in the Controlled Drugs and Substances Act and associated regulations as controlled or a scheduled drug. The activity and distribution is tightly controlled because its abuse potential or risk. AHS EMS controlled drugs list in accordance with the AHS EMS Medical Control Protocols are: FentaNYL, Ketamine, LORazepam, Midazolam, and Morphine.

Controlled Substances Registry means a registry that is required by the Controlled Drugs and Substances Act documenting all activity involving a controlled substance within the EMS service. This activity will be recorded in a **Controlled Substance Registry**. The registry is designed to record movement of all quantities of controlled substance from the time it is acquired by the EMS system to the time of its use or disposition. Each EMS station or EMS vehicle where Designated Administrators, Medical Directors or Paramedics involved with controlled drugs and substances will maintain a registry. The controlled substance registry documentation and tracking will be comprised from various sources such as PCRs, Pyxis, Vehicle Equipment Check System database and paper methods.

Designated Administrator means a person in the zone or service who is in a managerial position and is ultimately responsible for ordering, transporting, storing and providing controlled substances for an ambulance operator licensed under the Alberta Emergency Health Services Act and the Emergency Health Services (Interim) Regulation.

Emergency Situation means a situation which requires health care that is necessary to preserve life, to prevent serious physical or mental harm, or to alleviate severe pain.

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

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 and role.

Health Service means actions performed for or with a Patient including medication administration, tests, procedures, or treatments that may have consequences if performed on the wrong Patient.

High-Alert Medications (HAM) means medications that bear a heightened risk of causing significant patient harm when they are used in error. Although mistakes may or may not be more common with these drugs, the consequences of an error are clearly more devastating to patients. Therefore HAM requires specific risk reduction strategies. HAM are identified by the Institute for Safe Medication Practices (ISMP) and supported by Accreditation Canada and AHS HAM requirements ISMP HAM List.

Identification Source means a document (e.g. health care card or driver's licence) or a hospital generated label (e.g., identification arm band) or a person that can accurately verify that the two Patient identifiers used are accurate for that Patient.

Independent Double-Check means a verification process whereby a second health care provider conducts a verification of another health care provider's completed task. The most critical aspect is to maximize the independence of the double-check by ensuring that the first health care provider does not communicate what he or she expects the second health care provider to see, which would create bias and reduce the visibility of an error. (Institute for Safe Medication Practices [ISMP], 2005)

Locked Storage means a container, room, cabinet or other place that's accessibility is protected in a manner that deems it safe from any persons who are not have authorized

admittance. It is the obligation of the EMS Zone or service to ensure such protection to the full extent possible.

Look-alike Medications means pairs of medications that are very similar in terms of their physical characteristics, and may be confused one for the other. Physical characteristics include: size and shape of container, color of cap, color of label, volume of container, etc. (Institute for Safe Medication Practices Canada [ISMP] 2013).

Order means a direction given by a regulated health care professional to carry out specific activity (-ies) as part of the diagnostic and/or therapeutic care and treatment to the benefit of a patient. An order may be written (including handwritten and or electronic), verbal, by telephone or facsimile.

Medical Director (MD) means a person, as defined in the Alberta Emergency Medical Technicians Regulation, who is a physician designated to provide medical control to paramedics, and is in a managerial position with ultimate responsibility for ordering, transporting, storing and providing controlled substances for an organization that provides emergency medical services in Alberta.

Medical Record Number (MRN) is a unique number assigned at a health care delivery site for an individual's Health Service delivery records. The number is utilized for filing of paper records and unique identification of electronic records.

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

Medications 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.

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

Paramedic means a person who is registered and entitled under the Alberta Health Disciplines Act and the Emergency Medical Technicians Regulation to practice as an Emergency Medical Technologist-Paramedic in that province and to administer controlled substances as part of the practice of paramedicine and is actively on duty.

Personal Health Number (PHN) means the Patient's health care insurance number assigned to the Patient by the provincial/territorial/federal government. (Health Information Act [Alberta])

Pound-Per-Square Inch (PSI) means a unit of pressure value that is displayed on the tank regulator.

Read-alike medications means pairs of medications whose names are very similar in terms of their spelling (e.g., vinblastine and vincristine, quinidine and quinine), and may be confused one for the other. (Institute for Safe Medication Practices Canada [ISMP] 2013).

Risk Management Form means a form that is used by EMS Services that do not have access to the AHS RLS system to report clinical and administrative activities that have been undertaken to identify, evaluate, and reduce the risk of injury, loss, harm, or other adverse events to patients, staff, and visitors. Information regarding this process is located on the EMS provincial *Risk Management Report*.

Secured Area means an area where access to the EMS vehicle or supplies is controlled (e.g. scene call with EMS, fire or police staff in the immediate area) or an indoor parking area where exterior doors are closed and locked and access is controlled (e.g. station apparatus floor). A hospital ambulance bay is not considered a secure area.

TALLman Lettering means a typographic technique that utilizes selective capitalization of certain letters to help differentiate between similar looking medication names.

Unique Lifetime Identifiers (ULI) means a unique and permanent number assigned to all persons who receive Health Services in Alberta. Unique Lifetime Identifiers are assigned to all Alberta residents, residents of other provinces/territories or other countries.

Unserviceable Controlled Substance means a drug product containing a controlled substance that is expired, contaminated, damaged, or any residual controlled substance remaining in a multi-dose vial.

Unusable Medications means inventory not able or fit to be used for human consumption or medications removed from formulary and unlikely to be used.

REFERENCES

- Alberta Health Services Governance Documents:
 - *Access to Information (Physical, Electronic, Remote) Policy* (#1105)
 - *Controlled Drugs and Substances Policy* (#PS-EMS-05)
 - *Dangerous Abbreviations, Symbols and Dose Designations Policy* (#PS-08)
 - *Disposal of Unusable Medications Procedure* (#11.03.01.03)
 - *EMS Cleaning and Disinfecting, Medical Equipment and Vehicles Policy* (#PS-EMS-02) and Procedure (#PS-EMS-02-0)
 - EMS: Provincial Medical Control Protocols
 - *Handling of Unusable Medications Policy* (#11.03.01)
 - *Information Technology Acceptable Use Policy* (#1109)
 - *Operating Emergency Medical Services Vehicles Policy* (#PS-EMS-01)
 - *Patient Identity Verification Policy* (#PS-06)
 - *Receiving and Storage of Pharmaceuticals Policy* (#11.01.01.01)
 - *Tall Man Lettering Policy* (#4.01.04)
- Alberta Health Services Resource Documents:
 - EMS Risk Management Form; *Risk Management Report*
 - Final Report; Medication Quality and Safety Initiatives: High Alert Medication Storage in Pharmacy (January 2012)
- Non-Alberta Health Services Documents:
 - Accreditation Canada. (January 29, 2013). Qmentum Program, Emergency Medical Services

- Accreditation Canada. (January 29, 2013). Qmentum Program, Medication Management Standards
- Canadian Environmental Protection Act, 1999 – S.C. 1999, c. 33 (SCHEDULE 1 : List of Toxic Substances) (for Nitrous Oxide)
- Government of Alberta: 2011 Handbook of Occupational Hazards and Controls for Medical Emergency Response Personnel (page 15)
- Government of Alberta: Emergency Health Services Act
- Government of Alberta: Emergency Health Services Act Overview
- Government of Alberta: Emergency Health Services (Interim) Regulation
- Government of Alberta: Emergency Medical Technicians Regulation
- Government of Alberta: Licensing and Ambulance Maintenance Regulation
- Government of Alberta: Staff, Vehicle and Equipment Regulation
- Health Canada: Controlled Drugs and Substances Act (Current to March 4, 2013)
- Health Canada: Section 56 Class Exemption For Designated Administrators of Ambulance Operators in Alberta
- Health Canada: Section 56 Class Exemption For Medical Directors in Alberta
- Health Canada: Section 56 Class Exemption For Paramedics in Alberta
- Health Canada: Narcotic Control Regulations (Current to March 18, 2013)
- Institute for Safe Medication Practices (ISMP) 2012 List of High-Alert Medications
- Material Safety Data Sheet (Version 12): Nitrous Oxide
- TurnFast! PSI and PSIG definition

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