TITLE
MANAGING EMS CONTROLLED DRUGS AND SUBSTANCES DISCREPANCIES

OBJECTIVES
• To maintain compliance with controlled substance management requirements, all Emergency Medical Services (EMS) controlled drugs and substance discrepancies must be reviewed and resolved in a timely manner. This procedure provides direction as to when and how EMS controlled drugs and substance discrepancies are managed.

• For services who use electronic medication reporting; provide direction as to how to manage Pyxis© and E-Check System controlled drugs and substance discrepancies.

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. Discrepancy Management
   1.1 In accordance to the Health Canada: Controlled Drugs and Substances Act (S.C 1996, c.19), to ensure the safety of the public, EMS health care professionals and patients, controlled drugs and substance discrepancies must be identified, reviewed and resolved as soon as possible.

   1.2 EMS controlled drugs and substance discrepancies are the joint responsibility of the EMS Clinical Operations Associate Executive Directors and the EMS Business Standards & Operations Support (BSOS) Associate Executive Director.
Discrepancy management can be delegated to a designated Management Exempt (ME) Clinical Operations or ME BSOS representative including; Directors, **Medical Directors (MD)** or out of scope Managers, Supervisors, or **Designated Administrators**. For the purpose of this document, these persons will be referred to as “the Representative”.

1.3 Controlled drugs and substance discrepancies and how they are managed will be documented within the EMS service’s **Controlled Substance Registry**. The form of Controlled Substance Registry varies. In some services this may be the Pyxis© automated dispensing system or the E-Check System or another electronic or paper system.

1.4 Controlled drugs and substance discrepancies are to be resolved by the Representative as soon as possible, whenever possible, within 24 hours from when the discrepancy occurred. The Representative will encourage EMS health care professionals to resolve controlled drugs and substance discrepancies in real time when they occur.

2. **Reviewing Discrepancies**

2.1 Once a controlled drugs and substances discrepancy has been identified, the Representative will coordinate an actual medication count.

2.2 The Representative will identify who has had recent access to the controlled drugs and substances and will cross check the information with Patient Care Reports (PCRs) from the events in question. If necessary, the Representative will follow-up with the involved EMS Healthcare Professionals to determine the cause of the discrepancy.

2.3 Depending on the situation, the Representative may want to review other operations information to try to resolve the discrepancy including; using the GPS tracking history when available, accessing dispatch records and/or scheduling information and obtaining special event details in which the EMS health care professionals may have been involved.

2.4 If the Representative can identify the cause of the discrepancy, a reason will be documented within the Controlled Substance Registry. When the discrepancy cannot be resolved, the Representative will follow the steps to report the loss or theft of **controlled substances** as is outlined in the EMS **Managing Medications, Solutions and Medical Supplies** Procedure Section 3.4 (i).
3. **Pyxis® Discrepancies**

EMS services in some areas throughout Alberta use the Pyxis® automated dispensing system to manage controlled substances. The Pyxis® system has the capacity to identify and report discrepancies.

**Pyxis® Discrepancy Reports**

3.1 Pyxis® discrepancies are identified immediately following data entry into the Pyxis® MedStation and are indicated by a discrepancy icon that is displayed on the Pyxis® MedStation screen. The discrepancy icon will stay on the screen until the discrepancy is resolved.

3.2 Pyxis® discrepancies are also identified using data obtained from a Pyxis® Console. The Pyxis® Console can only be accessed by a Pyxis® Superuser. A discrepancy will be indicated in real time on the Pyxis® Console screen or can be identified through generated reports using the Pyxis® Console.

3.3 The Representative will encourage EMS health care professionals to resolve Pyxis® discrepancies following prompts using the Pyxis® Medstation in real time when they occur.

3.4 For discrepancies that are not identified and resolved in real time by EMS health care professionals, an EMS Pyxis® Superuser will run a discrepancy report using the Pyxis® Console and the Representative will use the report to review discrepancy data. This will be done at a minimum of one time every 24 hours.

**Note:** Pyxis® Consoles can be set up to generate reports automatically at a set time on an on-going basis.

3.5 Discrepancies generated by Pharmacy Services personnel as a result of stocking or other actives will be resolved by Pharmacy representatives following internal pharmacy processes.

3.6 Discrepancy information identified on the Pyxis® MedStation report includes:

a) Name of Pyxis® MedStation involved
b) Date
c) Time
d) Beginning medication count
e) End medication count
f) End user (Name & Alberta College of Paramedics (ACP) registration)
g) Witness (Name & ACP registration)
h) Patient initials (if applicable)

i) Drawer number and (where applicable) pocket number

j) Previous user and witness (name & ACP registration)

k) Medication name and quantity

l) EMS event number (if applicable)

**Note:** Pyxis© Consoles have access to Pyxis© data that has been archived for the past 30 days. When Pyxis© data is required beyond 30 days, a request for Pyxis© data must be sent to EMS System Performance and Innovation 780-735-1720.

3.7 Once the review has concluded, the Representative and a second (out of scope) ME EMS BSOS representative or a ME EMS Clinical Operations representative will go to the location of the affected Pyxis© Medstation. The second Representative is required to act as a witness. Upon access of the affected Pyxis© Medstation, the Representative will follow the steps in the [AHS Pyxis© Guide to Resolving Narcotic Discrepancies](#) reference sheet to resolve the discrepancy.

3.8 If the Representative can identify the cause of the discrepancy, a reason will be entered into the Pyxis© Medstation when prompted. When the discrepancy cannot be resolved, the Representative will select the “unresolvable” button within the Pyxis© machine and will follow the steps to report the loss or theft of controlled substances as is outlined in Element 5.0.

4. **E-Check System Discrepancies**

Many EMS services throughout Alberta use the E-Check System to manage controlled drugs and substance counts. The E-Check System has the capacity to identify discrepancies.

4.1 When completing the E-Check System Controlled Substance checklist, EMS Healthcare Professionals will identify controlled drugs and substances that are missing and do not have accompanying replacement documentation or is damaged. EMS health care professionals will immediately report the discrepancy to their Clinical Operations Supervisor using their local service processes.

4.2 When the discrepancy has been managed and the controlled drug or substance replaced, the updated count will be entered by the EMS health care professional who conducts the next E-Check System Controlled Substance Checklist and a brief explanation of the cause for the discrepancy will be documented by following the processes cited within the E-Check System *Handbook* on [AHSEMS.com](#).

4.3 When the designated Representative assigned to review the discrepancy can identify the cause of the discrepancy, a reason is provided to the EMS health
care professional who is responsible to complete the next E-Check System Controlled Substance Checklist.

4.4 When the discrepancy cannot be resolved, the Representative will document the review process and the reason that the discrepancy is unresolved within the Controlled Substance Registry and will follow the steps to report the loss or theft of controlled substances as is outlined in the EMS Managing Medications, Solutions and Medical Supplies Procedure Section 3.4 (i).

4.5 The Representative assigned to review the discrepancy will replace the missing or damaged controlled drug or substance using local service or zone processes.

5. **Loss or Theft Notification**

5.1 In accordance to the Health Canada: *Controlled Drugs and Substances Act* (S.C 1996, c.19), when there is indication that a controlled drug or substance may have been lost (misplaced) or stolen, or if the loss or theft cannot be completely ruled out, the occurrence must be reported to Health Canada.

5.2 When it is determined that a controlled drug or substance discrepancy may be a loss or theft incident, the Representative reviewing the discrepancy will notify the EMS Service Manager or designate.

5.3 EMS Service Manager or designate is responsible to formally report the loss or theft incident and will notify the Zone Medical Director. The EMS Service Manager or designate will notify the police and an official police report will be submitted. In addition, the EMS Service Manager or designate of contracted service providers will notify their AHS EMS Zone Operations Managers who will complete a *Reporting & Learning System for Patient Safety (RLS)* report. The reports will include the following information:

- **a)** Date and time that the police report was filed
- **b)** Police file number
- **c)** Name and address of police station
- **d)** Name of police officer receiving the report
- **e)** Date and time of Medical Director Notification
- **f)** Name of Medical Director
- **g)** Date and time that the Health Canada Notification (below) was sent
- **h)** Name of Contact at Health Canada (if provided)

5.4 The EMS Service Manager or designate will notify Health Canada (within 10 days of the theft or loss) including completion and submission of the *Loss or Theft Report Form for Controlled Substances and Precursors*. 
5.5 The Loss or Theft Report Form for Controlled Substances and Precursors Form will be submitted to Health Canada by fax: 613-957-0110.

5.6 A copy of the Loss or Theft Report Form for Controlled Substances and Precursors must also be sent by email to the EMS Zone Medical Director and the EMS Manager, Quality & Patient Safety who is responsible for the service where the loss or theft occurred.

DEFINITIONS

Controlled Drugs and Substances Act means a drug specifically named in the federal legislation Controlled Drugs and Substances Act, and 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 Substance Registry means a registry that is required by 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. (PS-EMS-05 and PS-EMS-05-01, April 2014).

EMS Controlled Drugs and Substances Discrepancy means a missing or damaged controlled drug or substance that is not accounted for; when a clear and immediate explanation as to where it is or how it was damaged is not available. EMS Controlled Drugs and Substance Discrepancies require review by an out of scope operations representative including; the Medical Director or out of scope Managers, Supervisors, or a Designated Administrator.

E-Check System means an electronic vehicle and equipment check system that is used by AHS EMS services.

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.
**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. (PS-EMS-05 and PS-EMS-05-01, April 2014)

**Pyxis© Console** means a computer terminal that Pyxis© Superuser use to access Pyxis© data.

**Pyxis© Discrepancy** means that the internal medication count within the Pyxis© system does not correspond with a Pyxis© end user transaction (medication data entry and withdrawal). Discrepancy(s) are specific to a Pyxis drawer number and (when applicable) pocket number.

**Pyxis© MedStation** means an automated dispensing system.

**Pyxis© Superuser** means a user of a computer system with special privileges needed to administer and maintain the system; a system administrator.

**REFERENCES**

- Alberta Health Services Governance Documents:
  - AHS Automated Medication Distribution Corporate Administrative Directive (#2.3.12)
  - Managing Medications, Solutions and Medical Supplies Procedure (#PS-EMS-05-01)
- Alberta Health Services Resource Documents:
  - AHS Pyxis© Guide to Resolving Narcotic Discrepancies
  - https://www.ahsems.com/secure/training/getFile.jsp?fileID=175833