SAN BERNARDINO COUNTY AUDITOR-CONTROLLER/TREASURER/TAX COLLECTOR INTERNAL AUDITS DIVISION



COUNTY FIRE DEPARTMENT: EMERGENCY MEDICAL SERVICES VEHICLES MEDICATION INVENTORY FOLLOW-UP AUDIT

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County Fire:

Emergency Medical Services Vehicles Medication Inventory Follow-up Audit

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June 5, 2023

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RE: Emergency Medical Services (EMS) Vehicles Medication Inventory Follow-Up Audit

We have completed a follow-up audit of the County Fire (Department) EMS Vehicles Medication Inventory for the period of October 1, 2020, through the date of fieldwork. The objective of the audit was to determine if the recommendations from the County Fire EMS Vehicles Medication Inventory Audit dated August 13, 2020, have been implemented. We conducted our audit in accordance with the International Standards for the Professional Practice of Internal Auditing established by the Institute of Internal Auditors.

We have provided a status of the audit findings identified in the original audit report issued on August 13, 2020. Of the four recommendations from the original audit report, two have been implemented and two have been partially implemented.

We sent a draft report to the Department on April 13, 2023. The Department's responses to the current status of our recommendations are included in this report.

We would like to express our appreciation to the personnel at the Department who assisted and cooperated with us during this engagement.

Respectfully submitted,

Ensen Mason CPA, CFA Auditor-Controller/Treasurer/Tax Collector San Bernardino County

By: Denise Mejico, CFE
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Scope and Objective

Our audit examined the controls over the Department EMS Vehicles Medication Inventory from October 1, 2020, through the date of fieldwork.

The objective of this follow-up audit was to determine whether the Department implemented the recommendations contained in the prior audit report, *County Fire Department – EMS Vehicles Medication Inventory Audit*, issued on August 13, 2020.

Methodology

In achieving the audit objective, the following audit procedures were performed including but not limited to:

- Review of applicable laws, regulations, and the Department's policies and procedures
- Interview of Department staff on policies, procedures, and processes relevant to the area being reviewed
- Walk-through of activities to obtain an understanding of the EMS processes and identify key controls
- Observation of the EMS vehicles operations relevant to the administration of medications
- Physical examination and inventory of medications inside the EMS vehicles
- Examination of original documents and system generated reports related to monitoring and administration of controlled substances



Prior Finding 1: Medications were not maintained in accordance with the Inland Counties Emergency Medical Agency (ICEMA) Policy, Procedure, and Protocol Manual.

The ICEMA Policy, Procedure, and Protocol Manual Reference no. 7010 "Basic Life Support (BLS) /Advanced Life Support (ALS) Standard Drug and Equipment List" states that each ambulance and first responder unit shall be equipped with the functional equipment and supplies. The list represents mandatory items with minimum quantities, excluding narcotics, which must be kept within the range specified. All expiration dates must be current. All packaging seals of medications or equipment must be intact. No open products or torn packaging may be used.

The following conditions were identified during our field visit:

Station 14 - Wrightwood

The minimum medication inventory levels were not maintained in 2 out of 2 EMS vehicles (ME14 & MA 14 – 1 medication) inspected as required by the ICEMA Manual.

Station 25 - Crestline

- The minimum medication inventory levels were not maintained in 2 out of 2 EMS vehicles (ME25 – 3 medications & MA25R – 2 medications) inspected as required by the ICEMA Manual.
- One EMS vehicle contained one medication (2 vials of Adenosine) which was 14 days past its expiration date at the time of inspection, and were not removed from the vehicle as required by the ICEMA Manual.

Station 41 – Yucca Valley

One EMS vehicle contained one medication (Epinephrine) which was 20 days past its expiration date at the time of inspection, and was not removed from the vehicle as required by the ICEMA Manual.

Station 302 - Hesperia

- The minimum medication inventory levels were not maintained in 3 out 3 EMS vehicles (MA302/MA302A – 1 medication & ME 302 – 5 medications) inspected as required by the ICEMA Manual.
- One EMS vehicle contained one medication (5 vials of Atrovent) which was 6 days past its expiration date at the time of inspection, and was not removed from the vehicle as required by the ICEMA Manual.

Station 305 - Hesperia

The minimum medication inventory levels were not maintained in 1 out of 3 EMS vehicles (ME305 – 2 medications) inspected as required by the ICEMA Manual.

Although the department was aware of the ICEMA Manual, there were instances when vehicles responded to several calls and the assigned paramedic was not



able to restock the medication during their shift. The Department does not have a policy for periodic inspections of medications to ensure that the vehicles carry the required minimum amount of medications. EMS vehicles carrying expired medications and medications that are below the minimum quantities could compromise the ability of the paramedics to administer appropriate care to a patient.

Recommendation:

We recommended the Department to periodically inspect and remove medications which are expired in the EMS vehicles. We further recommended the Department implement regular inventory counts and inspections of medications in the vehicles to ensure medications are maintained within the mandatory requirements of the ICEMA Manual.

Current Status: Partially Implemented

The Department implemented a virtual recordkeeping system, PS Trax, which provides real time inventory, medication usage, breakage, expiration, and all other changes in inventory of controlled substances. The Department was in the beginning stages of implementing a similar inventory system to cover the non-controlled substances at the time of our fieldwork.

We performed testing of medication inventory on EMS vehicles at the following locations:

- Station 14 Wrightwood
- Station 25 Crestline
- Station 41 Yucca Valley
- Station 302 Hesperia
- Station 305 Hesperia

The following conditions were identified during our testing of medication inventory:

Station 14 – Wrightwood

The minimum medication inventory levels were not maintained in the EMS vehicle (ME14 – 2 medications – non-controlled) inspected as required by the ICEMA Manual.

Station 25 - Crestline

The minimum medication inventory levels were not maintained in the EMS vehicle (ME25 – 1 medication – non-controlled) inspected as required by the ICEMA Manual.



Management's Response:

Since the completion of the audit, we have successfully implemented the recommendations outlined in the finding. Vending machines have been installed at all restock stations, housing select pharmaceuticals. This implementation ensures a seamless restocking process and compliance with the par levels specified by the ICEMA guidelines. Furthermore, we have instructed our crews to conduct monthly inspections of all medications and supplies on the 1st of each month. This practice allows us to identify and promptly remove any expired items, replacing them as necessary. By diligently implementing these measures, we have made significant progress in addressing the audit finding. We remain committed to upholding the highest standards of compliance and continuously improving our operations.

Auditor's Response:

The Department's actions and planned actions will correct the deficiencies identified in the finding.

Prior Finding 2: Recordkeeping and monitoring controls over controlled substances need improvement.

The Drug Enforcement Administration (DEA) Diversion Control Division Practitioner's Manual Section IV, Recordkeeping Requirements Inventory states that each registrant who maintains an inventory of controlled substances must maintain a complete and accurate record of the controlled substances on hand and the date that the inventory was conducted. This record must be in written, typewritten, or printed form and be maintained at the registered location for at least two years from the date that the inventory was conducted. Each inventory must contain the following information:

- Whether the inventory was taken at the beginning or close of business
- Names of controlled substances
- Each finished form of the substances (e.g., 100 milligram tablet)
- The number of dosage units of each finished form in the commercial container (e.g., 100 tablet bottle)
- The number of commercial containers of each finished form (e.g., four 100 tablet bottles)
- Disposition of the controlled substances

The ICEMA Policy, Procedure, and Protocol Manual Reference no. 7030 "Controlled Substance Policy" states that all controlled substances shall:

- Be purchased and stored in tamper evident containers
- Be stored in a secure and accountable manner
- Be kept under a "double lock" system at all times



 Be reconciled at a minimum every 24 hours or at any change of shift or change in personnel

San Bernardino County Fire District (SBCoFD) Operations Directives no. 3640 "Controlled Substance Policy" III, Procedure Section D states that at the start of every shift or at any time a Paramedic (EMT-P) with controlled substance responsibility is relieved, the outgoing and incoming EMT-P shall confirm that the Narcotics (NARC) Box Inventory Control (ICT) Tag is in place, intact and coincides with the Daily Controlled Substance Inventory (CSI) log. The incoming and outgoing EMT-P shall inventory the controlled substances and sign the Daily CSI log. The policy also states that if there is no incoming EMT-P, the on-duty station captain or immediate supervisor shall perform the above procedures with the onduty EMT-P.

The following conditions were identified when we reviewed the CSI log for September and October 2019:

Station 14 - Wrightwood

- The captain or supervisor did not perform an inventory of the controlled substances in all instances when there was no incoming EMT-P.
- There were two days where the name of the incoming EMT-P and controlled substance quantity were not documented.

Station 25 - Crestline

- The captain or supervisor did not perform an inventory of the controlled substances in all instances when there was no incoming EMT-P.
- There were five days where the controlled substance quantity, ICT Tag number, and name of outgoing EMT-P were not documented.

Station 41 – Yucca Valley

- The Captain or supervisor did not perform an inventory of the controlled substance in all instances when there was no incoming EMT-P.
- There were six days where the controlled substance quantity and name of the outgoing EMT-P were not documented.

Station 302 - Hesperia

The Captain or supervisor did not perform an inventory of the controlled substances in all instances when there was no incoming EMT-P.

Station 305 - Hesperia

- The captain or supervisor did not perform an inventory of the controlled substances in all instances when there was no incoming EMT-P.
- There were three days where the quantity of the controlled substance that was used was not subtracted from the running balance of the CSI log, therefore there was not a complete and accurate record of controlled substances on hand.



There were six days where the ICT tag number was not recorded correctly.

Although policy requires that controlled substances are reconciled, at a minimum, every 24 hours or at any change of shift or change in personnel, there is no internal policy requiring the appropriate supervisor to conduct periodic monitoring or review of the logs to ensure compliance by the paramedic unit. Lack of monitoring and oversight over inventory counts of controlled substances increases the risk of errors or missing drugs going undetected. Improper documentation of records could lead to inaccurate balances and non-conformance to federal guidelines, such as Title 21 United States Code (USC) Controlled Substance Act (CSA).

Recommendation:

We recommended the controlled substance inventory log is reviewed and signed by the captain or immediate supervisor when there is no incoming paramedic on duty. We further recommended the Department provide training to staff on proper documentation, reconciliation, and inspection of controlled substance to ensure compliance with the Department policy. We also recommended the Department update its policies and procedures, to include periodic monitoring as well as a defined frequency for the review of the CSI log, and identify the appropriate position responsible for such oversight. Lastly, we recommended that evidence of the reconciliation and review be maintained.

Current Status: Partially Implemented

The Department implemented a virtual recordkeeping system, PS Trax, which provides real time inventory, medication usage, breakage, expiration, and all other changes in inventory of controlled substances. Additionally, the names of the staff preparing and reviewing the logs and the ICT Tag number have become part of the documentation in PS Trax. PS Trax can be accessed at each station as well as on a mobile network to enter the daily log entries on time. Department staff have been trained on the new system and are required to submit daily entries. An alert is sent out to any station which has not made an entry by 11:00 a.m. each day. Additionally, the Department updated SBCoFD Operations Directives no. 3640 "Controlled Substance Policy" to include the requirements for monitoring and approvals in PS Trax.

We performed testing of CSI logs from PS Trax for the following locations:

- Station 14 Wrightwood
- Station 25 Crestline
- Station 41 Yucca Valley
- Station 302 Hesperia
- Station 305 Hesperia



The following conditions were identified in our testing of CSI logs:

Station 14 – Wrightwood

There was one day where the daily CSI log entry was not submitted. There was no usage of controlled substances on the date of the missing entry.

Station 41 – Yucca Valley

There were two days where the daily CSI log entry was not submitted. There was no usage of controlled substances on the dates of the missing entries.

Station 302 - Hesperia

There were two days where the daily CSI log entry was not submitted. There was no usage of controlled substances on the dates of the missing entries.

Station 305 - Hesperia

There was one day where the daily CSI log entry was not submitted. There was no usage of controlled substances on the date of the missing entry.

Management's Response:

Since the completion of the audit, we have successfully implemented the recommendations outlined in finding. We are pleased to report that PS Trax is now fully functional and operational in all divisions of our department. To support this implementation, we have incorporated additional educational and training components for all new hires, as well as newly promoted Captains and Battalion Chiefs. These efforts guarantee adherence to DEA regulations, as well as ICEMA and departmental policies. As part of our daily routine, an email is circulated, providing an update on the completion of inventory checks for controlled substances. We have recently included Battalion Chiefs in the distribution list of this email, ensuring their involvement in overseeing the completion of these daily checks and follow-up actions as required. Furthermore, we have established a 24-hour call line to promptly address any real-time issues or inquiries, aiming to mitigate any potential concerns.

By diligently implementing these measures, we have made significant progress in addressing the audit findings. We remain committed to upholding the highest standards of compliance and continuously improving our operations.

Auditor's Response:

The Department's actions and planned actions will correct the deficiencies identified in the finding.



Prior Finding 3: Documentation of controlled substance usage needs improvement.

San Bernardino County Fire Protection District Operations Directives no. 3640 "Controlled Substance Policy" III, Procedure Section E states that if the ICT tag is broken during the course of patient care and a controlled substance was administered to a patient, the EMT-P assigned to the paramedic unit shall document the usage of controlled substances on the Daily CSI log as soon as possible.

The ICEMA Policy, Procedure, and Protocol Manual Reference no. 2030-10 "Minimum Documentation Requirements for Transfer of Patient Care" states that first responders must complete the mandatory fields of the Electronic Patient Care Report (ePCR), which is used to create monthly controlled substance reports, prior to transferring care of a patient to a transporting agency whether using paper or electronic documentation. All medications and procedures should be documented, including attempts with times done prior to transfer. The narrative should be written if there is time or shall be given verbally to the next provider. Other fields should be completed if possible or if the fields pertain to the chief complaint.

The following conditions were identified when we reviewed the CSI log for September and October 2019:

Station 41 – Yucca Valley

- There were three days where the controlled substances used were not documented with the ePCR number.
- In one instance, there was an inconsistency identified whereby the CSI log did
 not agree to the monthly controlled substance report. When the controlled
 substance was administered, this was documented only in the narrative portion
 of the ePCR, rather than being properly documented in the medications column
 of the report.

Station 302 - Hesperia

There were three days where the controlled substances were not documented with the ePCR number.

Although the Department has processes and policies which are designed to address the documentation requirements of controlled substances, the paramedic unit did not consistently follow the policies by recording the usage of controlled substances when administered or shortly thereafter. Errors and omissions in the controlled substance daily CSI log could result in loss or abuse.

Recommendation:

We recommended the Department routinely provide level setting training to staff on accountability and recording of controlled substances. We further



recommended the Department implement automated controls in the EPCR software, which would not allow required fields to be left blank. We also recommended that management perform periodic monitoring over the administration of controlled substances, which includes reconciling CSI logs to the monthly controlled substance reports and requiring the station captain to sign the CSI log.

Current Status: Implemented

The Department implemented a virtual recordkeeping system, PS Trax, which provides real time inventory, medication usage, breakage, expiration, and all other changes in inventory of controlled substances. Additionally, the ePCR is now completed through PS Trax. The Department updated the SBCoFD Operations Directives no. 3640 "Controlled Substance Policy" to include the requirements for monitoring and approvals in PS Trax.

We performed testing of CSI logs from PS Trax for the following locations:

- Station 14 Wrightwood
- Station 25 Crestline
- Station 41 Yucca Valley
- Station 302 Hesperia
- Station 305 Hesperia

There were no exceptions identified in our testing.

Prior Finding 4: Access to controlled substances needs improvement.

San Bernardino County Fire Protection District Operations Directives 3640 "Controlled Substance Policy" III Procedure Section B states that only the EMT-P on duty assigned to the paramedic unit shall access the controlled substances during the course of the shift. The assigned EMT-P must be in possession of the controlled substances at all times during the course of their shift. Possession includes the physical possession of the controlled substances on any vehicle or stored in the equipment to which the EMT-P is assigned. Responsibility for the security of controlled substances is relinquished only when the controlled substances are transferred to another EMT-P at shift change, when relieved from duty, or if controlled substances are secured at the division storage station.

Station 302 and Station 305 – Hesperia

The key to the EMS vehicle is under the custody of the Emergency Medical Technician (EMT) instead of the EMT-P on duty.



The Department is experiencing difficulty enforcing its policy due to nature of work environment. Emergency services staff frequently need to respond to situations which require immediate action, and the EMT-P is not immediately available.

The risk of drug misappropriation or loss is increased when custody or access to controlled substances is not properly maintained.

Recommendation:

We recommended the Department limit physical access to controlled substances to the EMT-P on duty who is assigned to the paramedic unit during the course of the respective shift, as required by the San Bernardino County Fire Protection District Operations Directives.

Current Status: Implemented

The keys to EMS vehicles remain under the custody of the Emergency Medical Technician (EMT). The Department upholds that the EMT is a licensed health professional and should be in possession of the ambulance keys. There is a secondary locked door to the controlled substances for which the EMT does not have access. The EMT-P is the only staff with access to the controlled substances and will administer when necessary.