


Hernando County Clerk of Circuit Court & Comptroller
Audit Services Department
Audit Report
Of
EMS and Animal Services Drug Inventory Controls
April 17, 2019

MANAGEMENT LETTER

TO: Acting County Administrator Jeffrey Rogers

VIA: The Honorable Doug Chorvat, Jr.

FROM: Elizabeth Hogan, CIA, CFE, Director of Audit Services 

DATE: April 17, 2019

SUBJECT: EMS and Animal Services Drug Inventory Controls Audit

In accordance with the Audit Services Department's Audit Project Schedule, the internal audit team conducted an audit of EMS and Animal Services Drug Inventory Controls. Based on testing, observations, and communications with key personnel, the audit team produced the attached report for your review. Management's responses to the recommendations are also included. A copy of this report has been forwarded to the Board of County Commissioners as an agenda "Correspondence to Note" item.

The purpose of this report is to furnish management with independent, objective analyses, recommendations, counsel, and information concerning the activities reviewed. The audit report is a tool to help management discern and implement specific improvements. It is not an appraisal or rating of management.

Although the internal audit team exercised due professional care in the performance of this audit, this should not be construed to mean that unreported noncompliance or irregularities do not exist. The deterrence of fraud and/or employee abuse is the responsibility of management. Audit procedures alone, even when carried out with professional care, do not guarantee that fraud or abuse will be detected.

The courtesies and cooperation extended by the employees of the Hernando County Fire Rescue Department and the Animal Services Department during the audit were sincerely appreciated.

If you have any questions, concerns, or need additional information in regard to the above or the attached report, please do not hesitate to contact Audit Services at (352) 540-6589, or just stop by our offices in Room 362.

ATTACHMENT: EMS and Animal Services Drug Inventory Controls Audit Report

Copy: Scott Hechler, Hernando County Fire Chief & Public Safety Director
Kevin Carroll, Hernando County Deputy Fire Chief
James Terry, Animal Services Manager

Copy: Board of County Commissioners

Chairman Jeff Holcomb
Commissioner John Allocco
Commissioner Wayne Dukes
Commissioner John Mitten
Commissioner Steve Champion

Copy: Audit Services Planning & Priorities Committee

The Honorable Doug Chorvat, Jr., Clerk of the Circuit Court and Comptroller
Amy Gillis, CPA, CGFO, Director, Financial Services
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Table of Contents

EXECUTIVE SUMMARY.....5-7

ACKNOWLEDGEMENT.....8

BACKGROUND.....9-10

OBJECTIVE & SCOPE.....10-11

DISCUSSION POINTS

- 1. Inventory Software..... 12
- 2. Controlled Medications12-13
- 3. Periodic Automatic Replenishment (PAR).....13-14
- 4. Segregation of Duties.....14-15
- 5. Logistic Department's Warehouse Security.....15-16

Executive Summary

The Audit Services Department (ASD) conducted an audit of the drug inventory controls at the Hernando County Fire Rescue Department (HCFR) and the Animal Services Department. The purpose of this audit was to provide management with some level of assurance that the internal controls for drug inventories were adequate.

To accomplish this review, we obtained an understanding of the processes for ordering, receiving, storing, and administering both controlled and non-controlled medications. Florida Statutes, Florida Administrative Codes, Drug Enforcement Administration (DEA) regulations, and policies and procedures were reviewed, and items were selected for testing.

Based on the observations performed of the medication inventories, there were no discrepancies noted in the inventory amounts, medications were properly stored and secured, and expired medications were properly disposed of by HCFR.

Although observation and test results were generally positive, our review disclosed several Opportunities for Improvement that are addressed in the following discussion points.

Discussion Point 1: Inventory Software – HCFR and Animal Services

The U.S. Government Accountability Office (GAO)¹ issued an Executive Guide on Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property. According to this guide, “Managing the acquisition, production, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness.”

In Fiscal Year (FY) 2017/2018, HCFR spent \$433,145 and Animal Services spent \$54,526 on medical operating supplies.² Both HCFR and Animal Services rely on their respective inventory of medical supplies to fulfill their mission.

Currently, both HCFR and Animal Services manually track their inventory levels. This manual process presents the risk that errors and/or losses may go undetected. A computer-based system would streamline accountability audits, and further supplement the handwritten logs required by the Drug Enforcement Administration.

To accurately track the medical supply inventory and to enhance the internal control environment by reducing the risk of undetected theft or loss, unexpected shortages, and unnecessary purchases of items already on hand, management should consider implementing a computer-based system to track inventory.

Discussion Point 2: Recordkeeping for Controlled Medications - HCFR

According to the U.S. Department of Justice, Drug Enforcement Agency (DEA), “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.”

¹ The GAO is an independent, nonpartisan agency that works for Congress. Often called the “congressional watchdog.” GAO examines how taxpayer dollars are spent and provides Congress and federal agencies with objective, reliable information to help the government save money and work more efficiently. <https://www.gao.gov/about/>

² eFinance Plus Expenditure Status Report

To provide governance and to ensure compliance with DEA recordkeeping regulations, HCFR's Medication Policy provides personnel with the Standard Operating Guidelines for the administration and replacement of controlled substances.

Inventory of controlled substances carried on all fire engine and rescue units is recorded at each shift change on the unit's monthly controlled substance vehicle log. Any used, expired, or broken/tampered drugs are recorded on an Accountability Form which is then exchanged to the station's Battalion Chief (BC) for a replacement vial upon the BC's verification of usage on a properly documented Patient Care Record.

ASD's observations noted that all controlled medications were properly stored and safeguarded. However, a review of the required recordkeeping disclosed an Opportunity for Improvement.

Accurate and complete recordkeeping is of utmost importance for controlled medications. ASD's review disclosed that a Controlled Substance Log incorrectly reflected an increase in Versed³. In addition, the ASD was unable to observe the inventory as it was completed prior to ASD's arrival. However, the time documented on the log is after ASD's arrival time.

In addition to reviewing the Controlled Substance Logs for each of the rescue units, engines, and Battalion Chiefs for Fire Stations 1, 5, 8, 11, and 14, ASD traced the usage of controlled substances indicated on the logs to the applicable Controlled Substance Accountability Form. ASD could not locate the Controlled Substance Accountability Form for one out of the total of eighteen instances reviewed for drug disbursements.

Per HCFR's Medication Policy, "When a controlled substance is administered to a patient, the administering Paramedic will document the administration on the Controlled Substance Accountability Form and request replacement from the Battalion Chief or in rare circumstances, the Logistics Coordinator."

To strengthen the recordkeeping processes, management should review proper medication procedures with staff and implement reviews of each unit's Accountability Forms to their Controlled Substance Logs.

Discussion Point 3: Periodic Automatic Replenishment (PAR) Quantities - HCFR

The Medical Director authorizes the inventory levels that are to be carried on each ambulance and/or engine. The inventory levels are referred to as PAR. PAR quantities are established to ensure medications and supplies are on-hand to provide the best possible care while also minimizing the cost of wasting expired medications.

During some inventory observation cases, the quantity of non-controlled substances on Public Safety engines and rescue units exceeded PAR quantities. Exceeding the established PAR levels could result in overspending.

To ensure compliance with the Medical Director's guidance, management should periodically review the quantities of non-controlled medications carried aboard engine and rescue units for

³ DEA Diversion Control Division Schedule IV Controlled Substances
<https://www.deadiversion.usdoj.gov/schedules/>

adherence to the established PAR quantities and review the adequacy of the established PAR levels.

In addition, PAR values for non-controlled medications within the Logistics warehouse are not documented and are known only to the Logistics Coordinator.

To strengthen the inventory management process, management should formally document the PAR values for non-controlled medications within the Logistics Department Warehouse.

Discussion Point 4: Segregation of Duties – HCFR

According to the American Institute of Certified Public Accountants (AICPA), “Segregation of Duties (SOD) is a basic building block of sustainable risk management and internal controls for a business. The principle of SOD is based on shared responsibilities of a key process that disperses the critical functions of that process to more than one person or department. Without this separation of key processes, fraud and error risks are far less manageable.”⁴

Logistics personnel are comprised of the Logistics Manager, the Logistics Coordinator, and the Logistics Technician. With a wide range of field duties among the fire stations belonging to the Logistics Department, the Logistics Coordinator is often the individual to order medications and supplies, verify the order upon receiving the items, and perform the weekly inventory of the stock room. Thus, the Logistics Coordinator performs all three duties of ordering, receiving, and counting medication. When a single person participates in all three phases, there is an opportunity for fraudulent activity.

To minimize the opportunity for asset misappropriation, management should consider separating the duties of ordering, receiving, and counting medication. If staffing level constraints prevent the ability to properly segregate these duties, then management should implement adequate mitigating controls such as, supervisory review of all orders and random inventory verifications.

Discussion Point 5: Logistics Warehouse Security – HCFR

The Logistics Department Warehouse located at HCFR Headquarters is accessible by keypad or by physical key. According to Florida Statute 499.0121 (Storage and handling of prescription drugs; recordkeeping), “Entry into areas where prescription drugs are held must be limited to authorized personnel.”

Discussions with HCFR personnel disclosed that access to the Logistics Department's area that is used for the storage of non-controlled substances included personnel not specifically listed in HCFR's Medication Policy such as administration staff, captain medics, and any other staff member who may have obtained the keypad code. This access would allow them to obtain non-controlled medications and supplies directly from the Logistics Department's inventory.

To establish inventory accountability and reduce the possibility of inventory shrinkage, the ASD recommends that HCFR management limit access to the Logistics Department's warehouse to only those indicated in the Medication Policy.

⁴ <https://www.aicpa.org/interestareas/informationtechnology/resources/value-strategy-through-segregation-of-duties.html>

Acknowledgement

Other minor findings not included in the attached report were communicated to management and/or corrected during fieldwork.

Fieldwork was performed by: Michael Martin, CPA, former Internal Auditor
Kayla Liberato-Berdon, former Assistant Auditor

Management's response was provided by: Kevin Carroll, Deputy Fire Chief
James Terry, Animal Services Manager

Management's response was approved by: Jeffrey Rogers, Acting County Administrator

This report was reviewed and authorized by Doug Chorvat, Jr. Clerk of Circuit Court and Comptroller.



Doug Chorvat, Jr.

4-17-19

Date

BACKGROUND INFORMATION

To accomplish their missions to provide quality medical care to the citizens of Hernando County or to the animals in their custody, both the Hernando County Fire Rescue Department (HCFR) and the Hernando County Animal Services Department purchase and maintain medical supply inventories including controlled substances.

According to eFinance Plus, the County's financial system, in FY 2017/2018, Hernando County Fire Rescue's Rescue Department spent \$433,145 and Animal Services spent \$54,526 on medical operating supplies. For HCFR, the expenditure for medical operating supplies accounts for approximately 13% of the actual operating expenditures. For Animal Services, the expenditure for medical operating supplies accounts for approximately 20% of the actual operating expenditures.

Figure 1 shows medical operating supply expenditures for the last five Fiscal Years for HCFR, and Figure 2 shows medical operating supply expenditures for the last five fiscal years for Animal Services.

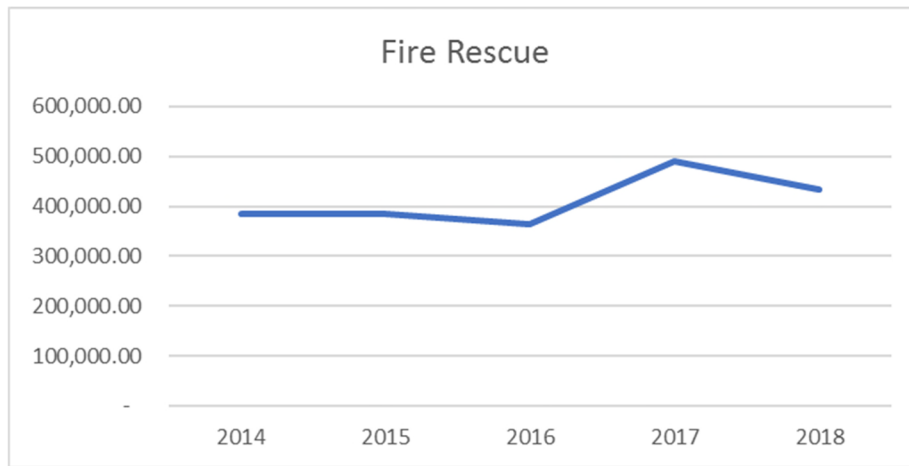


Figure 1 – Auditor generated based on financial data

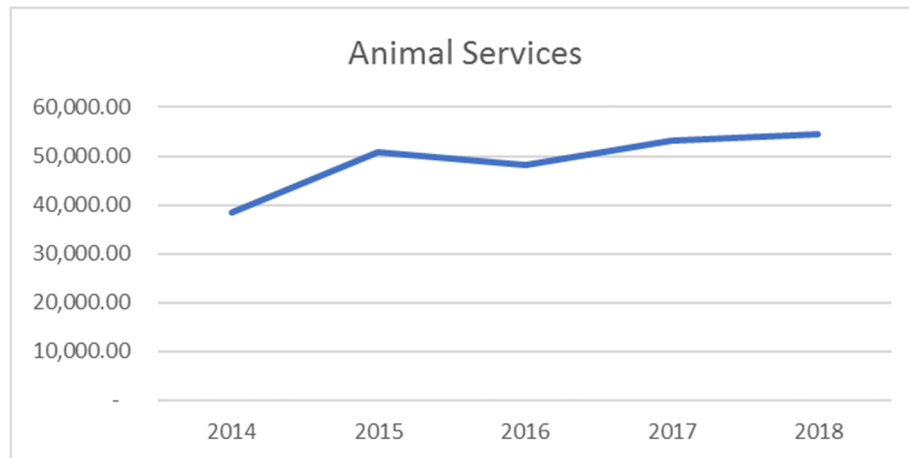


Figure 2 – Auditor generated based on financial data

Within the expenditures for medical operating supplies are the purchases of controlled substances. The usage and storage of controlled substances is regulated by the Controlled Substances Act (CSA) of 1970 and is primarily enforced by the Drug Enforcement Administration (DEA). "The Controlled Substances Act (CSA) places all substances which were in some manner regulated under existing federal law into one of five schedules. This placement is based upon the substance's medical use, potential for abuse, and safety or dependence liability."⁵

In addition to the CSA, HCFR and Animal Services must comply with Florida Statutes and Florida Administrative Code. Florida Statute Chapters 499 and 893, and Florida Administrative Code 64J-1 provide the rules and regulations for the storage, handling and recordkeeping, and disposal of prescription medications. Florida Statute 828, the Animals' Drug Abuse, Prevention and Control Act, addresses the controlled substances that may be used by Animal Services for the euthanasia or immobilization of injured, sick, or abandoned domestic animals which are in their lawful possession. F.S. 828 also provides the guidelines for the proper storage and handling of these prescription medications.

Controlled medications dispensed by HCFR, based on the medical emergency, include Morphine Sulfate, Fentanyl, Diazepam, Ativan, and Versed. Controlled substances utilized by Animal Services include Pentobarbital Sodium Solution (Fatal Plus), Ketamine, Telazol, Diazepam, and Buprinorphine.

OBJECTIVES

The objectives of this audit were to obtain reasonable assurance that:

- Quantities of medications on hand agree to recorded quantities at Public Safety Logistics Stockroom, Fire Rescue Station Engines and Rescue Units, and UCAPIT medical supply vending machines
- Quantities of medications on hand agree to recorded quantities at Animal Services
- Public Safety's Engines and Rescue Units have adequate controls for storing and safeguarding non-controlled medications.
- Adequate segregation of duties exists within Public Safety's purchasing process
- Public Safety's staff members' IMAGETREND access was disabled upon termination or transfer
- Controlled substances previously possessed by the Animal Enforcement Officers (AEOs) were returned to Animal Services
- Controlled substances were disposed of in accordance with the Drug Enforcement Administration's regulations

This audit was conducted in conformance with the *International Standards for Professional Practice of Internal Auditing*.

⁵ United States Drug Enforcement Administration website <https://www.dea.gov/controlled-substances-act>

SCOPE

To accomplish the audit objectives, the Audit Services Department performed the following procedures:

- Interviewed key personnel
- Obtained and reviewed relevant policies and procedures
- Observed HCFR shift change procedures at five (5) Fire Stations
- Selected a sample of medications to confirm inventory count
- Reviewed IMAGETREND system report for active/inactive users
- Reviewed Controlled Substance Logs and Accountability Forms for accuracy
- Reviewed access to Logistics Warehouse
- Observed Logistics inventory procedures
- Observed inventory of medications at Animal Services
- Reviewed security of controlled medications at Animal Services

The audit period was October 1, 2017 through September 30, 2018 and the first month of Fiscal Year 2019. Inventory observations were conducted during September 2018 and October 2018.

Discussion Point	Opportunity for Improvement	Description	Page Reference
1	1	Implement software to accurately track medical supply inventory	12
2	2	Review Controlled Substance logs for accuracy and completeness, and reconcile entries to a completed Accountability Form	12-13
3	3	Implement periodic reviews of Engine and Rescue Units' inventory of medications for adherence to PAR quantities of non-controlled substances by all paramedics and EMTs.	14
3	4	Document PAR values for non-controlled medications within the Logistics warehouse	14
4	5	Implement proper segregation of duties for the ordering, receiving and counting of medication, such that no one person participates in all three activities	15
5	6	Limit access to the Logistics Department's warehouse	15-16

Discussion Points

Discussion Point 1: Inventory Software – HCFR and Animal Services

According to the Government Accountability Office (GAO) Executive Guide Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, “Managing the acquisition, production, storage, and distribution of inventory is critical to controlling cost, operational efficiency, and mission readiness.”

1. Opportunity for Improvement: Implement software to accurately track medical supply inventory

Currently, both HCFR and Animal Services are manually tracking their inventory levels. This manual process presents the risk that errors and/or losses may go undetected. A computer-based system would streamline accountability audits, and further supplement the handwritten logs required by the Drug Enforcement Administration.

Recommendation: The ASD recommends that Public Safety and Animal Services implement software to accurately track the medical supply inventory and to enhance the internal control environment by reducing the risk of undetected theft or loss, unexpected shortages, and unnecessary purchases of items already on hand. Budgetary conditions should be reviewed and assessed for the costs associated with this implementation.

Management Response:

HCFR Logistics has collaborated with Tech Services and procured an additional module with Asset Works (Currently being utilized by Fleet Management) to provide us with a web-based inventory management system. Implementation is expected this year.

Hernando County Animal Services agrees that having an electronic method of inventory tracking would be a great addition to the manual forms required by the Drug Enforcement Administration. HCAS is currently moving toward changing our primary records management system to PetPoint which has modules for this task. Dr. Julie has already begun training staff which was a great step forward. HCAS is confident the recommendations for electronic tracking of controlled substances will be implemented this year. Because we already have PetPoint we will not have to purchase a new records management system.

Discussion Point 2: Recordkeeping Controlled Medications – HCFR

According to the Florida Administrative Code & Florida Administrative Register 64J-1.021 (Security of Medications), Public Safety’s operating procedures regarding the security and recordkeeping of medications are authorized by Public Safety’s Medical Director and consistent with specifications outlined by the U.S. DEA Title 21 and Florida Statutes Chapters 499 and 893.

DEA regulations state 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 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.”⁶

Inventory of controlled substances carried on all fire engine and rescue units are recorded at each shift change on the unit's monthly Controlled Substance Vehicle Log. Any used, expired, or broken/tampered drugs are recorded on an Accountability Form which is then exchanged to the station's Battalion Chief (BC) for a replacement vial upon the BC's verification of usage on a properly documented Patient Care Record.

2. Opportunity for Improvement: Review Controlled Substance logs for accuracy and completeness, and reconcile entries to a completed Accountability Form

ASD's observations noted that all controlled medications were properly stored and safeguarded. Review of the required logs and forms, however, disclosed a couple of lapses in recordkeeping.

ASD's review of the Controlled Substance Logs for the Fire Stations selected for testing disclosed one instance in which the log incorrectly reflected an increase in Versed. In addition, this log also indicated that for the time period reviewed, the daily inventory was taken at 0800 each day; however, when ASD was at the Fire Station staff members indicated that the inventory had occurred at 0730.

In addition, ASD traced Controlled Substance Log entries to the completed Accountability Form. One out of the eighteen entries reviewed did not have a completed Accountability Form.

Recommendation: The ASD recommends that HCFR management review proper medication recordkeeping procedures with staff and implement reviews of each unit's Accountability Forms to their Controlled Substance Logs.

Management Response:

The Division Chief of Operations has drafted an operational memo along with a mandated review of our medication policy for all field personnel. This directive reiterates the importance of accurate inventory control as well as accurate medication logs in real-time.

Discussion Point 3: Periodic Automatic Replenishment (PAR) Quantities - HCFR

Medications and fluids used by HCFR for treating patients are obtained under the Medical Director's Medical License. The Medical Director authorizes the inventory levels that are to be carried on each ambulance and/or engine. The inventory levels are referred to as PAR. PAR quantities are established to ensure medications/fluids are on-hand to provide the best possible care while also minimizing the cost of wasting expired medications.

The PAR level for both controlled and non-controlled medications are documented on the logs used by HCFR personnel. HCFR personnel perform an inventory at each shift change. For non-controlled supplies, HCFR personnel perform an inventory on a weekly basis.

When medications/fluids fall below the PAR level, field personnel request replenishment(s) of controlled medications through the Battalion Chiefs and request replenishment(s) of non-

⁶ <https://www.deadiversio.usdoj.gov/pubs/manuals/pract/section4.htm>

controlled medications through the Captains. To obtain replenishment of controlled medications, HCFR paramedics must complete an Accountability Form which documents when the medication was administered. The administration of the medications is also included in the Patient Care Report in the IMAGETREND system.

3. Opportunity for Improvement: Implement periodic reviews of Engine and Rescue Units' inventory of medications for adherence to PAR quantities of non-controlled substances by all paramedics and EMTs.

Based on the results of ASD's inventory observations, there were no discrepancies in the amounts of the counts observed.

However, during some inventory observation cases, the quantity of non-controlled substances on Public Safety engines and rescue units exceeded PAR quantities. Exceeding the established PAR levels could result in overspending.

Recommendation: The ASD recommends that management periodically review Engine and Rescue Unit's non-controlled medications for adherence to the established PAR quantities.

Management Response:

HCFR has implemented protocols for personnel to provide input on PAR levels for Rescues and Engines. These suggestions/recommendations are vetted through HCFR administration and the HCFR EMS committee. All inconsistencies in PAR levels on units has been corrected.

4. Opportunity for Improvement: Document PAR values for non-controlled medications within the Logistics warehouse

PAR values for non-controlled medications within the Logistics Warehouse are not in writing and are known only to the Logistics Coordinator.

Recommendation: The ASD recommends that management formally document the PAR values for non-controlled medications within the Logistics Warehouse.

Management Response:

HCFR Logistics had already amended its inventory control sheets to include PAR levels.

Discussion Point 4: Segregation of Duties - HCFR

According to the American Institute of Certified Public Accountants (AICPA), "Segregation of Duties (SOD) is a basic building block of sustainable risk management and internal controls for a business. The principle of SOD is based on shared responsibilities of a key process that disperses the critical functions of that process to more than one person or department. Without this separation of key processes, fraud and error risks are far less manageable."⁷

Logistics personnel are comprised of the Logistics Manager, the Logistics Coordinator, and the Logistics Technician. With a wide range of field duties among the fire stations belonging to the Logistics Department, the Logistics Coordinator is often the individual to order medications and

⁷ <https://www.aicpa.org/interestareas/informationtechnology/resources/value-strategy-through-segregation-of-duties.html>

supplies, verify the order upon receiving the items, and perform the weekly inventory of the stock room.

5. Opportunity for Improvement: Implement proper segregation of duties for the ordering, receiving and counting of medication, such that no one person participates in all three activities

The Logistics Coordinator performs all three duties of ordering, receiving, and counting medication for the Logistics warehouse. When one person participates in all three phases, there is an opportunity for fraudulent activity.

Recommendation: The ASD recommends that Public Safety separate the duties of ordering, receiving, and counting medication. If staffing level constraints prevent the ability to properly segregate these duties, then management should implement adequate mitigating controls such as review of all orders and random inventory verifications.

Management Response:

Accounts payable will assume the duties of ordering medication and medical supplies instead of Logistics. Once Logistics counts the inventory, Accounts Payables will place orders to replenish the stock. Logistics will receive the order and verify all is received. Another person in Accounts Payable will process the invoice for payment.

Discussion Point 5: Logistics Department's Warehouse Security - HCFR

The Logistics Department Warehouse located at HCFR Headquarters is accessible by keypad or by physical key. According to Florida Statute 499.0121 (Storage and handling of prescription drugs; recordkeeping), "Entry into areas where prescription drugs are held must be limited to authorized personnel."

Public Safety's Medication Policy lists authorized personnel as the Medical Director, HCFR Administrative Chiefs, Battalion Chiefs, Logistics Manager, Logistics Coordinator, Logistics Personnel, and the Quality Assurance Coordinator(s).

In addition to compliance with Florida Statute, HCFR must comply with Drug Enforcement Administration (DEA) regulations. Per the DEA, "In order to minimize the possibility of diversion, the registrant must limit access to the storage areas for controlled substances to a minimum number of authorized employees."⁸

6. Opportunity for Improvement: Limit access to the Logistics Department's Warehouse

Based on ASD's observation, the Logistics Department's area used for the storage of controlled substances appears to be adequate and in compliance with regulations.

However, discussions with HCFR personnel disclosed that access to the Logistics Department's area that is used for the storage of non-controlled substances included personnel not specifically listed in HCFR's Medication Policy such as, administration staff, captain medics, and any other staff member who may have obtained the keypad code. This access allows them to obtain non-controlled medications directly from the Logistics Department's inventory.

⁸ https://deadiversion.usdoj.gov/pubs/manuals/sec/sec_non_prac.htm#ci_cii

Recommendation: To establish inventory accountability and reduce the possibility of inventory shrinkage, the ASD recommends that HCFR management limit access to the Logistics Department's Warehouse to only those indicated in the Medication Policy.

Management Response:

With authorization from HCFR administration the Logistics department has changed the locks on the entry doors to the inventory area, providing access to the Deputy Fire Chief, Battalion Chiefs, the Logistics Manager, the Logistics Coordinator and the Logistics Technician.