



# Fairfax County Internal Audit Office

**Fire and Rescue Department  
Emergency Medical Services (EMS) Billing and System  
Audit  
Final Report**

**August 2015**

*"promoting efficient & effective local government"*

# Introduction

The Fairfax County, Fire and Rescue Department (FRD) billing for emergency medical transport services began in April 2005 with an annual revenue collection amount of over \$7 million. Annual billing and collection amounts have steadily increased with approximately \$17 million collected in fiscal year 2014. FRD billings are processed by an outside billing company, MED3000 Inc., and charged to private insurance companies, as well as Medicare and Medicaid. Patients treated by County Emergency Medical Service (EMS) personnel and transported to a hospital are charged a fee. Patients treated by EMS personnel, but not transported to a hospital are not charged a fee. In 2012, FRD acquired and implemented Image Trend, a new electronic patient care reporting application system. This electronic records system facilitates the transfer of patient data to the billing vendor. It is also used by the Virginia Office of Emergency Services to ensure a smooth transfer of state required incident information. The use of this application system has greatly improved the efficiency of FRD's billing and revenue collection.

## Executive Summary

Our audit focused on the billing, cash receipts handling, and accounting functions associated with revenues from EMS transport fees, and system controls over the electronic patient care reporting system. The EMS transport billings and systems staff were very cooperative and responsive in providing requested documentation in a timely manner. Our audit found that billings for EMS transport fees were accurate and timely; electronic patient care reports were maintained on file; bank deposits, recording of transactions into the FOCUS system and reconciliations were performed in an accurate and timely manner, and collection efforts on past due accounts were adequate. In addition, we noted overall controls for the electronic patient care reporting system were adequate to restrict unauthorized access to sensitive information. Audit trails of transactions existed within the system; separation of duties was in place; back-up and recovery procedures were adequate; and the system met the state and federal data privacy requirements as well as the HIPAA guidelines for protection of patient confidential information. However, we noted the following areas where controls needed to be strengthened:

- The FRD EMS Billing and Collection Plan did not clearly reflect the actual business operations and needed to be updated.
- FRD did not establish procedures to periodically review the Image Trend patient care reporting system's user list to determine whether it remained accurate. The system's user list was not up-to-date.
- FRD did not maintain records of requests for adding, changing and removing Image Trend system access privileges, which could result in inappropriate user access.

## Scope and Objectives

This audit was performed as part of our fiscal year 2015 Annual Audit Plan and was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. This audit covered the period October 1, 2013, through September 30, 2014. The objectives of the audit were to determine that:

- Billings for EMS transport fees were efficient, effective and accurate.
- Timely collection efforts were made on past due accounts.
- Waiving, write-offs, reporting and aging of accounts receivable was proper.
- Control over the receipt, processing and posting of funds received was adequate.
- Patient information necessary to process billing was sufficient.
- User access controls over the patient care reporting system were adequate.
- Controls were in place to restrict unauthorized access to sensitive information.
- Adequate separation of duties was in place and audit logs were maintained.
- Summary and detailed system reporting were adequate.
- Efficient use of system capabilities existed, and user training was sufficient.
- Backup and recovery procedures were adequate.

## Methodology

Our audit methodology included a review and analysis of controls over billing and collection of EMS transport fees, and system controls for the electronic patient care reporting system. Our audit approach included interviewing appropriate staff, observing employees' work functions, detailed testing of various samples of transactions, and evaluating the processes for compliance with sound internal controls, County policies, and departmental policies and procedures.

The Fairfax County Internal Audit Office (IAO) is free from organizational impairments to independence in our reporting as defined by Government Auditing Standards. We report directly and are accountable to the County Executive. Organizationally, we are outside the staff or line management function of the units that we audit. We report the results of our audits to the County Executive and the Board of Supervisors, and IAO reports are available to the public.

# Findings, Recommendations, and Management Response

## 1. Billing and Collection Plan

The Fire and Rescue EMS Billing and Collection Plan did not clearly reflect the actual business operations and needed to be updated. We noted the following:

- a. The bad debt write-off policy stated in the Billing and Collection Plan was not consistent with the one followed in actual practice by FRD. Responsibilities previously completed by FRD staff were now assigned to the billing company. As a result, the “Individual Duties and Responsibilities” section of the Plan listed functions of some staff members that did not reflect actual operations.
- b. The duties and responsibilities for one staff member in the Billing and Collection Plan needed to be updated to include the approval process, while another staff member and the related duties and responsibilities regarding hardship waivers and reconciling daily transports needed to be added to the Plan.
- c. The Billing and Collection Plan referred to the old electronic patient care reporting system used before 2012, instead of the currently used Image Trend application system.
- d. The Billing and Collection Plan referred to the County’s old “FAMIS” system instead of the currently used “FOCUS” system.

According to ATB 036, *Billing and Collection Procedures for Billable Revenues*, County agencies that generate billable revenue are required to provide an accurate and up-to-date billing and collection plan to the Department of Finance (DOF). The billing and collection plan is a means to aid management in assessing whether the system in place will maximize the timely collection of all revenues. Failure to obtain an approved billing and collection plan that accurately describes procedures/requirements increases the risk of ineffective and inefficient collection of funds and may result in reduced revenues and errors.

**Recommendation:** We recommend FRD update their billing and collection plan to reflect actual operations, and submit it to DOF for approval.

**Note:** Internal Audit verified FRD implemented this recommendation during the course of our audit. No follow-up is needed for this item.

## 2. User Access Maintenance

The Image Trend electronic patient care reporting system’s user list was not up-to-date. We obtained a list of system users and compared it with the current FRD employee listing from the Department of Human Resources (DHR) to ensure all

system users were valid/current employees. Our comparison noted three active system users were transferred to other departments within the County and no longer had a business reason for Image Trend system access. Further, we noted 65 active system users had left the County. As a compensating control, their network access rights were removed on separation from the County. However, their accounts needed to be locked and deactivated in the system. In addition, there were 37 users whose profiles needed updates or deletions due to user IDs not matching County user IDs, accounts not used for a long period, and accounts created in error, to name a few.

Fairfax County Information Technology Security Policy 70-05.01 states that system administrators or other designated staff:

- Are responsible for immediately terminating user privileges when workers change jobs or leave the County.
- Shall maintain a formal process to modify user accounts to accommodate events such as name changes, account changes and permission changes.
- Shall periodically review and adjust user access privileges as necessary to ensure access is in accordance with the concept of least privilege.

County employees or contractors separating or terminating employment with Fairfax County or changing roles within Fairfax County who continue to have access to critical or sensitive resources pose a threat, especially those individuals who may have left under acrimonious circumstances. Further, user accounts not updated or deleted as necessary on a timely basis increases the risk of erroneous transactions.

**Recommendation:** We recommend FRD make the necessary updates to the user profiles as noted above. In addition, FRD should develop departmental policies to periodically review the Image Trend system's user list and perform necessary updates or deletions. During our audit, FRD made the necessary updates to the user profiles.

**Management Response:** Automated emails that are sent from the IT Service Desk are set to auto-forward to the uniformed ePCRS coordinator for action, and an official process has been documented. This item was implemented on July 9, 2015.

### 3. Documentation for System Access

All requests for adding, changing and removing Image Trend system access privileges were handled through e-mails; however, the system administrators did not keep all the email communications. There was no formal access request form. Further, the staff at Image Trend, Inc. indicated they did not capture an entire log of the changes made to user permission settings, they could only identify the last person who edited a user account.

Fairfax County Information Technology Security Policy 70-05.01 states:

- Requests for County information system accounts shall maintain a formal and valid access authorization based on approved intended system usage within personnel mission and business functions.
- Fairfax County shall maintain a formal process to modify user accounts to accommodate events such as name changes, accounting changes, and permission changes.

Lack of a documented user access request process creates risks of granting users excessive access rights to perform their duties, changing users' access rights without management approval, and retaining transferred or terminated users as active in the system.

**Recommendation:** We recommend FRD maintain a documented process for authorization and modification of system access privileges. All access should be approved by an authorized supervisor. And the documentation certifying the user access requests, whether hard copies or electronic e-mails, should be maintained on file.

**Management Response:** All user access changes are now documented in Infra, the County's IT Service Desk ticketing system, and an official process has been documented. This item was implemented on July 9, 2015.