Department of Veterans Affairs
Office of Inspector General

Office of Healthcare Inspections

Report No. 13-03862-35

Healthcare Inspection

Emergency Department Length of Stay and Call Center Wait Times VA Eastern Colorado Health Care System, Denver, Colorado

December 23, 2013

Washington, DC 20420

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Executive Summary

The VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an inspection to assess the validity of allegations regarding the Emergency Department (ED) and the Health Information Call Center (Call Center) at the VA Eastern Colorado Health Care System (facility), Denver, CO.

VA OIG's Hotline Division received the following allegations: the ED "needs help," wait times exceeded 8 hours, and a patient was treated discourteously and afraid to return; and staffing issues at the Call Center caused long call waiting times and callers dropped out because they grew tired of waiting. During this review, we received an additional allegation that another ED patient was treated discourteously.

We did not substantiate the allegation that the ED "needs help." While we found some ED wait times (length of stay [LOS]) exceeded 8 hours, we determined the facility met VHA's target of less than 10 percent of patients with a LOS over 6 hours. We did not substantiate the allegation that ED staff treated two patients discourteously, or that one of the patients was afraid to return to the ED due to alleged discourteous treatment.

We substantiated the allegations that Call Center understaffing caused long call waiting times and callers to abandon calls. We found 40 percent of the Call Center's authorized registered nurse, medical support assistant, and pharmacy technician positions were vacant and determined that inadequate staffing contributed to the Call Center's failure to meet VHA targets for caller response time and call abandonment rates. We also found that calls were dropped due to the telephone system's 120-line limitation, and callers who used the automated call return system did not always receive a return call. An upgrade of the phone system is not planned until FY 2016 when the facility relocates. Additional staff and an upgraded system should eliminate the 120-line limitation and reduce callback system failures.

We recommended that the Veterans Integrated Service Network and Facility Directors ensure processes are strengthened to improve Health Information Call Center practices and staffing levels.

Comments The Veterans Integrated Service Network and Facility Directors concurred with our recommendations and provided an acceptable action plan. (See Appendixes A and B, pages 8–11 for the Directors' comments.) We will follow up on the planned actions until they are completed.

JOHN D. DAIGH, JR., M.D.
Assistant Inspector General for
Healthcare Inspections

Purpose

The VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an inspection to assess the validity of allegations regarding the Emergency Department (ED) and the Health Information Call Center (Call Center) at the VA Eastern Colorado Health Care System, Denver, CO (facility).

Background

The facility provides primary, tertiary, and long-term care with a broad range of inpatient and outpatient health care services. It is part of Veterans Integrated Services Network (VISN) 19 and serves a veteran population of about 350,000 throughout the Front Range of Colorado and into Wyoming. During fiscal year (FY) 2013, 28,109 patients presented for care at the facility's 11 bed ED. VHA plans to relocate the facility to a replacement facility scheduled to open in FY 2016.

VHA requires that a registered nurse (RN) triages all patients who present to the ED and assigns acuity levels based on the Emergency Severity Index (ESI).[1,2] The ESI is a five-level algorithm that categorizes acuity and expected resource needs into five groups from 1 (requires immediate, life-saving intervention) to 5 (non-urgent).

VHA requires that EDs use Emergency Department Integration Software (EDIS).[3] EDIS allows staff to record and track ED patients. Recorded information includes patient arrival and disposition (discharge, transfer, admission) time, and is broken down into 4-hour increments. The time elapsed from arrival to disposition is referred to as length of stay (LOS). VHA's LOS target is for 10 percent or less of patients to have a LOS greater than 6 hours.[4] For our evaluation, we used a 4-hour LOS benchmark due to the software timing features.

VHA requires that facilities provide access to telephone services for clinical care 24 hours a day, 7 days a week.[5] Patients accessing the telephone service receive assistance with managing appointments and resolving pharmacy issues, as well as receive health care information, advice, and education. VHA's Call Center targets include 30-second average answer times and less than 5 percent call abandonment.[6]

[1] VHA Handbook 1101.05, *Emergency Medicine Handbook*, May 12, 2010.
[2] Gilboy N, Tanabe T, Travers D, Rosenau AM, *Emergency Severity Index (ESI): A Triage Tool for Emergency Department Care, Version 4: Implementation Handbook 2012 Edition*, AHRQ Publication No. 12-0014, Rockville, MD, Agency for Healthcare Research and Quality, November 2011.
[3] VHA Directive 2011-029, *Emergency Department Integration Software (EDIS) for Tracking Patient Activity in VHA Emergency Departments and Urgent Care Clinics*, July 15, 2011.
[4] VHA Quality Metrics; Day, Theodore E. et al, *Decreased Length of Stay After Addition of Healthcare Provider in Emergency Department Triage,* Emergency Medicine Journal, 2013;30(2):134-138.
[5] VHA Directive 2007-033, Telephone Service for Clinical Care, October 11, 2007.
[6] Ibid. URAC (Utilization Review Accreditation Committee) is the accrediting body for medical telephone Call Centers.

In July 2013, VA OIG's Hotline Division received the following allegations: the ED "needs help," wait times exceeded 8 hours, a patient was treated discourteously and afraid to return, and staffing issues at the Call Center caused long call waiting times and callers dropped out because they were tired of waiting.

In August, 2013, we received an additional allegation that another ED patient was treated discourteously.

Scope and Methodology

On September 19, 2013, we conducted a site visit and toured the ED. We interviewed facility leadership, quality and risk management staff, medical administrative services staff, pertinent clinical staff, ED and Call Center managers, staffing coordinators, and the patient advocate. We reviewed patient electronic health records, facility policies and VHA directives, ED and Call Center staffing and hiring data, EDIS and Call Center call wait time logs and tracking data, VHA Support Service Center (VSSC) data, relevant articles from the medical literature, and quality management and patient advocate documentation.

We conducted the inspection in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

Inspection Results

Issue 1: Emergency Department

Staffing: We did not substantiate the allegation that the ED "needs help." During interviews, the ED Manager and ED Director told us they believed the authorized ED full-time employee equivalents (FTE) were adequate. We reviewed ED staffing documents and learned there were 9.9 authorized physician and 18 authorized RN FTE. At the time of our review, all physician FTE were staffed and there were five RN vacancies. We determined that the facility actively advertised when vacancies occurred and at the time of our review, had hired RNs for four of the five vacancies, although the new staff had not yet reported for duty. We reviewed staffing schedules and found the ED manager maintained RN staffing levels using experienced, local agency RNs as needed and the ED had at least two RNs available at all times as required by VA policy.[7]

[7] VHA Directive 2010-010, *Standards for Emergency Department and Urgent Care Clinic Staffing Needs in VHA Facilities*, March 2, 2010.

Length of Stay: While we found some ED wait times exceeded 8 hours, we determined the percentage of patients with a LOS over 4 hours (8.6 percent) was below VHA's target.[8]

Local policy requires that patients triaged as ESI levels 1 or 2 receive immediate ED interventions. To decrease the LOS, ESI level 3 patients (patients with limited urgent needs such as sutures or ankle sprains) may be treated in the ED Fast Track program, which is staffed by a dedicated physician. Patients triaged as ESI levels 4 and 5 may also be treated in the Urgent Care Clinic, if they present during opening hours, Monday-Friday, 7:00 a.m. to 5:00 p.m.

The VHA target for ED LOS is for no more than 10 percent of patients to experience a LOS greater than 6 hours. For our evaluation, we used a 4-hour LOS benchmark due to software timing features. We reviewed FY 2013 EDIS LOS data and ED patient tracking information and found that some patient LOS times did exceed 8 hours; however, on average, only 8.6 percent of the patients had a LOS greater than 4 hours. FY 2013 EDIS data also revealed ED patients at the facility are triaged, seen by a physician, admitted, and discharged faster than national VHA averages. Additionally, fewer ED patients chose to leave without being seen than the national VHA average.

Two patient deaths occurred in the ED during FY 2013. We reviewed the electronic health records and determined the deaths were not attributed to LOS.

We also reviewed patient advocate documentation related to FY 2013 ED LOS complaints. Of the 28,109 patients who presented for care at the ED, 58 patients registered a patient advocate complaint regarding the care they received while in the ED. Five of the 58 complaints concerned LOS. None of the complaints concerned a wait that was greater than 5 hours and there was no indication the patients were injured or sought care at another ED due to the wait.

Courtesy: We did not substantiate the allegation that ED staff treated two patients discourteously causing one to be afraid to return. One patient's medical history included depression and anxiety diagnoses. Electronic health record documentation included multiple ED encounters and Call Center interactions and notes recording or stating that the patient expressed fear of the ED to Call Center staff and fear of Call Center staff to ED providers. Documentation indicated the patient was not deterred from further ED visits and Call Center calls after verbalizing fears. Patient advocate documentation did not indicate the patient reported concerns related to discourtesy or fear. The other patient's medical history included terminal cancer. The patient's family member filed a complaint with the patient advocate that concerned care received in the ED; however, the complaint concerned pain management, not discourtesy.

[8] By meeting the stricter benchmark of 4 hours that we used because of EDIS timing features, the facility was well within VHA's target of 6 hours.

Issue 2: Health Information Call Center

We substantiated the allegations that Call Center understaffing issues caused long call wait times and callers to abandon calls. In addition, we found that calls were dropped due to the facility's telephone system 120-line limitation and that callers who used the automated call return system did not always receive a return call.

Call Center RNs, medical support assistants (MSA), and pharmacy technicians answer calls Monday-Friday between 8:00 a.m. and 4:00 p.m.[9] During FY 2013, the Call Center received 52,563 calls. At the time we received this complaint, callers first encountered an automated telephone menu system that asked the caller to select an option that met their needs (speak to a nurse, schedule or cancel an appointment, or ask a medication question). If the target staff phone lines were busy, the system placed the caller on hold in a queue. On August 23, the Call Center implemented a live "greeter" process, which replaced the automated menu system. Live greeters currently answer all incoming calls within 2 seconds, briefly speak to the caller, and transfer the call to the appropriate queue. MSAs address approximately 75 percent of all Call Center calls by addressing scheduling needs, transferring calls to clinics, and providing directions. If the caller's concern requires an RN, the MSA transfers the patient to the RN line and, if all RN lines are busy, the caller is again placed in a queue.

The telephone system has a callback feature. Callers on hold are informed of the approximate wait time and advised they have an option to leave a recorded message and receive a return phone call without losing their place in the queue. When callers select the return call option and their call becomes the next to be answered, an RN Call Center staff sees a computer screen message and the system calls the veteran.

Call Center Staffing: The Call Center had the following authorized FTE: 13 MSA, 11.5 RN, and 9.5 pharmacy technician. Of these authorized positions, there were 7 MSA vacancies, 3.5 RN vacancies, and 3.5 pharmacy technician vacancies. During interviews, the Call Center director and manager told us the process to hire and bring on new Call Center staff was slow and by the time a qualified applicant was accepted for a position, the applicant was often no longer interested in the job. At the time of our review, applicants selected in April 2013 to fill RN vacancies had not been offered a position. Additionally, we did not find evidence that the facility had pursued alternate solutions such as re-assignment or interim staffing.

Call Response Time and Caller Abandonment: Because the Call Center was not fully staffed and did not have a resource for temporary staff, Call Center staff were unable to adequately address the volume of calls. During the course of our interviews, we learned it was not unusual to have over 20 callers in the RN queue.

VHA's goal is that a caller should first talk to a person (response time) in 30 seconds or less and the call abandonment rate should be less than or equal to 5 percent. The

[9] Calls received outside of the Call Center's operating hours are routed to VISN 10 and 11 Call Centers and are not a subject of this complaint.

facility's Call Center FY 2013 call response and call abandonment data did not meet goals. Specifically, the FY 2013 average call response time was 354 seconds with a monthly range from 129 to 651 seconds and the FY 2013 call abandonment rate was 21.3 percent with a monthly range from 8 to 34.8 percent. We tested the Call Center on 3 random days prior to the facility's transition to live greeters. We selected the menu option to speak to an RN and found the following:

Date	Time	Estimated Wait	Calls Ahead	Actual Wait
August 6	2:13 pm	16 minutes (960 seconds)	24	13 minutes, 15 seconds (795 seconds)
August 13	10:00 am	12 minutes (720 seconds)	18	12 minutes, 30 seconds (750 seconds)
August 16	8:00 am	5 minutes (300 seconds)	2	5 minutes, 10 seconds (310 seconds)

Telephone Caller System Limitations: During this review, we learned the automated call system dropped calls if call lines exceed the 120 active line limit. During our interviews, we also found those who used the automatic return call feature did not always receive the return call.

Call Center Caller Satisfaction: Patient advocate documentation contained Call Center complaints related to wait times, dropped calls, and return calls not being processed when a caller selects that feature. The patient advocate also documented that Call Center staff were aware of the problems and had notified the telephone system vendor.

Conclusions

We did not substantiate the allegation that the ED "needs help." While we substantiated the allegation that some ED wait times exceeded 8 hours, we determined the percentage of patients with a LOS over 4 hours (8.6 percent) during FY 2013 was below the VHA target.[10] We did not substantiate the allegation that ED staff treated two patients discourteously, or that one of the patients was afraid to return to the ED due to alleged discourteous treatment.

We substantiated the allegations that Call Center understaffing issues caused long call wait times and callers to abandon calls. In addition, we found that calls were dropped due to the facility's telephone system 120-line limitation and that callers who used the automated call return system did not always receive a return call.

Call Center staff told us they believed better staffing and a new telephone call system would reduce wait times and improve callers' experiences. The Call Center has advertised to fill vacant FTE. An upgrade of the phone system is not planned until FY 2016 when the facility relocates. Additional staff and an upgraded system should reduce dropped calls and callback system failures.

[10] By meeting the stricter benchmark of 4 hours that we used because of EDIS timing features, the facility was well within VHA's target of 6 hours.

Recommendation

1. We recommended that the Veterans Integrated Service Network and Facility Directors ensure processes be strengthened to improve Health Information Call Center practices and staffing levels.

Appendix A

VISN Director Comments

Department of Veterans Affairs **Memorandum**

Date: December 6, 2013

From: Director, Rocky Mountain Network (10N19)

Subject: Healthcare Inspection-Emergency Department Length of Stay and Call Center Wait Times, VA Eastern Colorado Health Care System, Denver, CO

To: Director, Kansas City Office of Healthcare Inspections (54KC)

Director, Management Review Service (VHA 10AR MRS OIG Hotline)

1. Attached is the response from VA Eastern Colorado Health Care System (ECHCS) to the OIG Healthcare Inspection – Emergency Department Length of Stay and Call Center Wait Times.

2. The facility acted upon the opportunities for improvement prior to the review, and continues to address the opportunities since the review. The facility continues to pursue the hiring processes to fill vacant Call Center positions. The Call Center equipment upgrade feasibility study will not be concluded until March 2014. At that time, ECHCS leadership will determine the next steps of phone system replacement.

(*original signed by:*)

Ralph Gigliotti

Appendix B

System Director Comments

Department of Veterans Affairs **Memorandum**

Date: December 6, 2013

From: Director, VA Eastern Colorado Health Care System (554/00)

Subject: Healthcare Inspection-Emergency Department Length of Stay and Call Center Wait Times, VA Eastern Colorado Health Care System, Denver, CO

To: Director, Rocky Mountain Network (10N19)

1. I concur with the recommendation from the Healthcare Inspection conducted in September 2013. The recommendation covers an area of opportunity for improvement.

2. Eastern Colorado Health Care System (ECHCS) leadership continues to monitor processes and outcomes, and take action when indicated, regarding the Call Center opportunities for improvement.

3. ECHCS had previously identified the need for additional staffing within our Call Center. In February 2013, leadership approved the recommended plan to hire additional Medical Support Assistants (MSA), Registered Nurses (RN), and Pharmacy Technicians. We expect the approved vacant positions to be filled by the end of February 2014. If the hiring processes do not proceed as planned, agency staff for MSA & RN positions will be utilized.

4. As stated in the conclusions of the report, our facility plans to upgrade the Call Center phone system. Replacement of the system is planned in 2016 as ECHCS transitions to the replacement facility. Due to the leadership's concern over the volume of dropped calls, a review was initiated to determine the cost effectiveness of upgrading prior to 2016. The review will require an in depth study by our VISN and Regional OI&T to determine the feasibility of accomplishing transition prior to 2016. We anticipate having the results of the feasibility study by March 2014. At that time, ECHCS leadership will determine the feasibility of upgrading the system.

5. For additional information, please contact Ann Jodway, Risk Manager, ECHCS at (720) 857-5027 or at Ann.Jodway@va.gov.

(*original signed by:*)

Lynette A. Roff

Director, Eastern Colorado Health Care System (554/00)

Comments to OIG's Report

The following Director's comments are submitted in response to the recommendations in the OIG report:

OIG Recommendations

Recommendation 1. We recommended that the Veterans Integrated Service Network and Facility Directors ensure processes be strengthened to improve Health Information Call Center practices and staffing levels.

Concur

Target date for completion: 02/28/2014 - Call Center Vacant Positions Filled

Facility response:

ECHCS had previously identified the need for additional staffing within the Call Center. In February 2013, leadership approved the recommended plan to hire additional Medical Support Assistants (MSA), Registered Nurses (RN), and Pharmacy Technicians. It is anticipated the approved vacant positions will be filled by the end of February 2014. If the hiring processes do not proceed as planned, agency staff for MSA & RN positions will be utilized.

Target date for completion: 03/31/2014 - Phone System Upgrade Feasibility Study

Facility response:

The facility plans to upgrade the Call Center phone system. Replacement of the system is planned in 2016 as ECHCS transitions to the replacement facility. Due to the leadership's concern over the volume of dropped calls, a review was initiated to determine the cost effectiveness of upgrading prior to 2016. The review will require an in depth study by our VISN and Regional OI&T to determine the feasibility of accomplishing transition prior to 2016. We anticipate having the results of the feasibility study by March 2014. At that time, ECHCS leadership will determine the feasibility of upgrading the system.

Appendix C

OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the OIG at (202) 461-4720.
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Appendix D

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