Department of Veterans Affairs
Office of Inspector General

Healthcare Inspection

Excessive Length of Stay and Quality of Care Issues in the Emergency Department
William Jennings Bryan Dorn
VA Medical Center
Columbia, South Carolina

Report No. 12-03038-145

March 26, 2013

VA Office of Inspector General
Washington, DC 20420

To Report Suspected Wrongdoing in VA Programs and Operations:
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Executive Summary

The VA Office of Inspector General Office of Healthcare Inspections conducted an evaluation in response to allegations of an excessive length of stay (LOS) and lack of treatment for elevated blood pressure in the Emergency Department (ED) at the William Jennings Bryan (WJB) Dorn VA Medical Center (the facility) in Columbia, SC. During our inspection, an anonymous complainant further alleged that acuity levels for various conditions were triaged lower than indicated by ED guidelines.

We substantiated the patient's excessive LOS in the ED, and determined it to be a chronic problem at the facility. Although the facility had implemented VHA-required software, Emergency Department Integration Software (EDIS), to track ED patient flow, it was not utilized to provide data to assist in improving flow management. Further, we found that ED providers considered EDIS data entry a low priority, leading to inaccurate documentation about ED delay reasons by non-provider staff. We found that the facility was aware of delays in ED patient flow and planned to hire additional providers and to extend hours for its non-urgent area.

We did not substantiate that the facility failed to address the patient's elevated blood pressure in the ED. We found that the triage nurse, the ED provider, and the admitting physician assessed the patient and were aware of his history of hypertension and the medication prescribed to treat it. The admitting physician resumed the patient's home blood pressure medication upon admission.

We did not substantiate that urgent or critical conditions were triaged at non-urgent levels. The anonymous complainant listed specific conditions associated with alleged low acuity triage levels. We reviewed triage levels assigned to symptoms of abdominal pain, myocardial infarction, transient ischemic attack, hypertension or hypotension, altered level of consciousness, and psychiatric issues, and determined that in most instances, triage levels were urgent or critical.

We recommended that the Facility Director identify a reporting structure for EDIS data and ensure that mandated quarterly reports containing and utilizing EDIS data are provided, ensure that planned actions to address patient flow (hire additional providers and extend hours for the non-urgent area) are implemented and patient flow outcomes are monitored, and that ED providers and other clinical and administrative staff receive training on the use of EDIS delay reasons and that accuracy is monitored.

The Veterans Integrated Service Network and Facility Directors concurred with our recommendations and provided an acceptable action plan. We will follow up on the planned actions until they are completed.

DEPARTMENT OF VETERANS AFFAIRS
Office of Inspector General
Washington, DC 20420

TO: Director, VA Southeast Network (10N7)

SUBJECT: Healthcare Inspection – Excessive Length of Stay and Quality of Care Issues in the Emergency Department, William Jennings Bryan Dorn VA Medical Center, Columbia, South Carolina

Purpose

The VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an evaluation in response to allegations of an excessive length of stay (LOS) and failure to address elevated blood pressure in the Emergency Department (ED) at the William Jennings Bryan (WJB) Dorn VA Medical Center (the facility) in Columbia, SC. During our inspection, an anonymous complainant further alleged that acuity levels for various conditions were triaged lower than indicated by ED guidelines. The purpose of the review was to determine whether the allegations had merit.

Background

The facility is part of Veterans Integrated Service Network (VISN) 7 and serves a veteran population of about 410,000 throughout South Carolina. It provides a broad range of inpatient and outpatient medical, surgical, mental health, and long-term care services, and has 95 operating hospital beds and 75 community living center beds. Outpatient care is also provided at seven community based outpatient clinics located throughout the state.

EDs provide emergent care to all who present in need of such care. This includes initial evaluation, treatment, and disposition for a broad spectrum of illnesses, injuries, and psychiatric disorders, as well as resuscitative therapy and stabilization in life-threatening situations. The Veterans Health Administration (VHA) requires registered nurse triage in all EDs and the use of the Emergency Severity Index (ESI) as the sole triage tool.[1]

[1] VHA Handbook 1101.05, *Emergency Medicine Handbook*, May 12, 2010.

The ESI triage tool[2] yields rapid, reproducible, and clinically relevant stratification of patients presenting for ED care by categorizing them according to acuity (severity of symptoms) and resource needs. The tool uses key decision points that divide patients into five levels from 1 (emergent) to 5 (non-urgent). Examples of resources are tests, procedures, specialty consultations, or other interventions beyond the provider's examination.

Patients triaged at ESI level 1 or 2 require immediate life-saving interventions or other immediate care. At level 3, symptoms are not life-threatening, vital signs are outside the ESI "danger zone," and the patient's care is anticipated to require two or more resources. Patients triaged at levels 4 and 5 have symptoms of lower acuity and likely require one or no resources, respectively, as determined by the triage nurse.

The facility ED is divided into two areas, the emergency room and the non-urgent area. Per facility policy, the emergency room treats patients with emergent, critical, or urgent conditions (ESI levels 1, 2, and 3, respectively), and the non-urgent area treats patients with lower acuity conditions (ESI levels 4 and 5). Patients are treated in the non-urgent area between 8:00 a.m. and 3:00 p.m. After 3:00 p.m., the emergency room treats all patients presenting for care, including those who were not seen before the closing of the non-urgent area.

VHA requires facilities with an ED to utilize the Emergency Department Integration Software (EDIS) tracking program for data entry and ED flow management.[3] EDIS provides real-time data about patient flow, wait times, and LOS to assist in policy development and system redesign for improved patient flow. Eleven standard reports are available in EDIS with details about ED activity, including patient logs and triage levels, disposition from the ED, and delays or missed opportunities. Several EDIS reports identify ED stays that have exceeded the current nationally recognized stay limit of 6 hours.

Scope and Methodology

We conducted a site visit from August 28–29, 2012, and interviewed the complainant by telephone. We interviewed providers and other staff involved in care or treatment of the patient, and additional clinical and administrative staff knowledgeable about the issues. We reviewed relevant facility and VHA policies and procedures, patient medical records, staff training and scheduling records, QM documents, including meeting minutes, EDIS reports, and The Joint Commission standards.

[2] *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.

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.

Case Summary

The patient was a man in his early sixties with a history of diabetes mellitus, end-stage renal disease managed with hemodialysis, and peripheral vascular disease with previous amputations. He presented to his primary care provider (PCP) in early May 2012, complaining of a 1 week history of pain and swelling of his left middle finger. The PCP diagnosed cellulitis and ordered topical and oral antibiotics.

Two weeks later, the patient returned to the PCP's office without an appointment, complaining of pain, swelling, and discoloration in the finger. Nursing documentation described the finger as "beginning to show signs of pallor and necrosis." The PCP told us that his impression did not match the nurse's description, but without time to conduct a full examination, and knowing that the facility could provide any necessary treatment, he instructed the patient to go to the facility ED for evaluation.

The patient and his wife arrived at the facility ED after the non-urgent area had closed. He was promptly evaluated by the ED triage nurse who documented the patient as diabetic and presenting with an "infected middle finger of left hand." She noted his history of poor circulation in that hand; his vital signs, including blood pressure of 178/111; and his reported pain intensity of 4 ("uncomfortable, impacts on work") on a scale from 0 to 10, constant for the past 3-4 days. The nurse triaged the patient with an ESI score of 4 (non-urgent), and he went with his wife to the ED waiting room.

Over 5 hours later, the ED nurse noted a complaint from the patient's wife about the wait time. The nurse and a supervisor addressed the complaint with the patient and his wife and brought the patient into an ED examination room. An hour later, he was seen by an ED physician.

The ED physician noted that the patient's blood pressure remained elevated (195/105) and that he was afebrile with normal heart rate, respiratory rate, and a pain intensity of 5. The ED physician noted swelling of the left middle finger, with potential infection, and contacted a surgical provider for further evaluation in the ED. The surgical provider determined that the patient did not require surgery and a medicine service resident accepted him for admission to the facility.

EDIS reports showed that the patient was admitted to the facility approximately 9 hours after entering the ED. The admitting physician's diagnoses included potential infection or vascular (related to blood flow) causes for the changes in his finger. He ordered an ultrasound to assess for changes in blood flow to the finger, treated the patient for a potential infection, and resumed the patient's home medications, including the one for

blood pressure control. A vascular surgeon's evaluation noted mild to moderate fingertip ischemia (insufficient blood supply) which was supported by the ultrasound results.

The patient's symptoms improved and he was discharged home 4 days later with medications for ischemia and potential infection.

Inspection Results

Issue 1: Excessive LOS

We substantiated the allegation of excessive LOS in the ED.

The patient arrived after the non-urgent area had closed for the day. Triage occurred timely and although the patient's blood pressure was elevated[4], the triage level was in accordance with ESI guidelines at level 4. In accordance with facility policy, he waited for treatment in the emergency room because the non-urgent area was closed.

EDIS reports showed that the patient waited 320 minutes (5 hours and 20 minutes) before being placed into an ED examination room, and that 545 minutes (9 hours and 5 minutes) elapsed between his arrival at and departure from the ED. Staff told us that routinely, after the non-urgent area closed for the day, patients triaged as non-urgent waited to be seen by the ED provider. We reviewed 693 ED stays during 8 non-consecutive days in June and July and found that 124 (18 percent) exceeded 6 hours. Of those, 66 (53 percent) were triaged at emergent, critical, or urgent levels, and 54 (44 percent) were triaged at non-urgent levels[5]. We determined that excessive ED LOS was a chronic problem at the facility and it affected patients across all ESI triage levels.

Generally, after the non-urgent area closed., the ED was staffed with 2-3 providers until 7:30 p.m. At 7:30 p.m., all but one provider left for the day, and at 8:00 p.m. another provider arrived who would work throughout the night. At 9:30 p.m., the last provider remaining from the day shift departed, leaving only the night shift provider in the ED until 7:00 a.m. This provider was responsible for treating new patients who presented to the ED as well as treating the patients who continued to wait after the non-urgent area closed. Patients were treated by order of ESI triage level, and patients at emergent, critical, or urgent levels were seen before patients with non-urgent needs.

On the date of the patient's visit, the EDIS "Activity Report" showed that the night shift provider treated 17 patients between 8:00 p.m. and 8:30 a.m. Ten of the 17 patients had waited since the non-urgent area closed and had LOS of at least 4 hours by the time the

[4] *Emergency Severity Index (ESI): A Triage Tool for Emergency Department Care, Version 4*, p.37: "It is important to note that when considering abnormal vital signs, blood pressure is not included in the ESI algorithm. This does not mean that the triage nurse should not take a blood pressure or a temperature on older children or adults but that these vital signs are not necessarily helpful in selecting the appropriate triage acuity level."
[5] Totals do not equal 100 percent because some EDIS entries lacked triage data.

night shift provider arrived. Eleven of the ED provider's 17 patients had stays exceeding 6 hours, although LOS decreased toward the end of his shift as he worked through the backlog and new arrivals were treated promptly.

The ESI triage tool does not mandate specific timeframes in which patients must be evaluated by a physician[6]; however, EDIS requires input of a delay reason for patients whose ED stays exceed 6 hours.[7]

The patient's 9-hour ED stay was identified in the EDIS "Delay Report." The delay reason listed was "Obtain Inpatient Bed"; however, our review of the health record and interviews with staff did not indicate a lack of available beds. Staff told us that the EDIS delay reasons were not always accurate because non-provider staff, who were less involved in care for the patient, often entered the reasons because ED providers perceived EDIS data entry to be a low priority. VHA requires use of EDIS by all administrative and clinical staff in the ED[8]; we could not confirm that ED providers used EDIS for uniform collection and reporting of ED data.

VHA also requires that the ED provide quarterly reports containing and utilizing EDIS tracking data[9]; however, we found that ED and facility senior leaders were not aware that EDIS patient flow data reports were available. ED staff and facility senior leaders were aware of delays in ED patient flow and had taken steps to address them. At the time of our inspection, the facility planned to hire additional providers to provide extended hours for the non-urgent area.

The facility also convened a Rapid Process Improvement Workgroup to address ED patient flow. The workgroup focused on patients who left without being seen. During follow-up telephone calls, patients expressed long wait time as their reason for leaving. ED Nursing leaders, who were also workgroup members, reviewed EDIS reports as part of their ED responsibilities; however, facility leaders told us that the EDIS reports were not used by the workgroup in making recommendations.

Issue 2: Blood Pressure Not Addressed in ED

We did not substantiate that the patient's elevated blood pressure was not addressed in the ED. ED staff told us that they reviewed his medical history of chronic hypertension, and determined that the patient did not have symptoms that required emergent treatment when accompanied by high blood pressure, such as headache or visual changes. The admitting physician examined the patient in the ED and resumed the patient's home anti-hypertensive medication.

[6] *Emergency Severity Index (ESI): A Triage Tool for Emergency Department Care, Version 4.* November 2011.
[7] VHA Directive 2011-029
[8] VHA Directive 2011-029.
[9] VHA Directive 2011-029.

Issue 3: Low Acuity Triage Levels

We did not substantiate that acuity levels were triaged lower than indicated by ESI guidelines. During our inspection, an anonymous complainant alleged that triage levels were low (of lower acuity), specifically in regard to symptoms of abdominal pain, myocardial infarction, transient ischemic attack, hypertension or hypotension, altered level of consciousness, and psychiatric issues.

Allegedly, patients received ESI triage levels of 4 or 5, indicating treatment in the non-urgent area when their symptoms warranted ESI levels of 3 or 2 (urgent or critical), requiring evaluation in the emergency room. Overall, for the 693 ED stays we reviewed, 60 percent were triaged at level 4 or 5. However, in reviewing individual triage levels we determined that, in most instances, acuity was triaged at levels 3 or 2 for the specific conditions listed in the allegation.

Conclusions

We substantiated the patient's excessive LOS in the ED, and determined it to be a chronic problem at the facility. Although the facility had implemented EDIS, it was not utilized to provide data to assist in improving patient flow management. Further, we found that ED providers considered EDIS data entry a low priority, leading to inaccurate documentation of delay reasons by non-provider staff. We found that the facility was aware of delays in ED patient flow and planned to hire additional providers and extend hours for the non-urgent area.

We did not substantiate that the patient's elevated blood pressure was not addressed in the ED. We found that the triage nurse, the ED provider, and the admitting physician assessed the patient and were aware of his history of hypertension and the medication he was prescribed for treatment. The admitting physician resumed the patient's home blood pressure medication upon admission.

We did not substantiate that urgent or critical conditions were triaged at non-urgent levels. We reviewed triage levels assigned to symptoms of abdominal pain, myocardial infarction, transient ischemic attack, hypertension or hypotension, altered level of consciousness, and psychiatric issues as alleged and determined that, in most instances, triage levels were urgent or critical.

Recommendations

Recommendation 1. We recommended that the Facility Director identify a reporting structure for Emergency Department Integration Software data and ensure that mandated quarterly reports containing and utilizing Emergency Department Integration Software data are provided.

Recommendation 2. We recommended that the Facility Director ensure that planned actions to address patient flow (hire additional providers and extend hours for the non-urgent area) are implemented and that patient flow outcomes are monitored.

Recommendation 3. We recommended that the Facility Director ensure that Emergency Department providers and other clinical and administrative staff receive training on the use of Emergency Department Integration Software delay reasons and that accuracy is monitored.

Comments

The Veterans Integrated Service Network and Facility Directors concurred with our recommendation(s) 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

Appendix A

VISN Director Comments

Department of Veterans Affairs **Memorandum**

Date: January 25, 2013

From: Director, VA Southeast Network (10N7)

Subject: **Healthcare Inspection – Excessive LOS and Quality of Care Issues in the ED, WJB Dorn VA Medical Center, Columbia, SC**

To: Director, Washington DC Office of Healthcare Inspections (54DC)

1. Thank you for the opportunity for me to review and respond to this report.

2. I concur with the conclusions and recommendations presented by the Office of Healthcare Inspections and concur with my Facility Director's plans of action designed to correct these recommendations.

(original signed by)

Charles E. Sepich, FACHE

Appendix B

Facility Director Comments

Department of Veterans Affairs **Memorandum**

Date: January 25, 2013

From: Director, WJB Dorn VA Medical Center, Columbia, SC (544/00)

Subject: **Healthcare Inspection – Excessive LOS and Quality of Care Issues in the ED, WJB Dorn VA Medical Center, Columbia, SC**

To: Director, VA Southeast Network (10N7)

1. We thank you for allowing us the opportunity to review and respond to the subject report.

2. We concur with the conclusions and recommendations presented by the Office of Healthcare Inspections, and present you with the plans of action designed to correct those areas with recommendations.

3. If you have questions or need further information, please contact Bridget Schausten at (803) 776-4000, x7731.

(original signed by)

Rebecca Wiley

Director's Comments to Office of Inspector General's Report

The following Director's comments are submitted in response to the recommendations in the Office of Inspector General's report:

OIG Recommendations

Recommendation 1. We recommended that the Facility Director identify a reporting structure for Emergency Department Integration Software data and ensure that mandated quarterly reports containing and utilizing Emergency Department Integration Software data are provided.

Concur **Target Completion Date:** 3/15/13

Facility Response: The Emergency Department (ED) with coordination through the Chief of the ED, and the ED Nurse Manager will ensure mandated reports containing and utilizing the Emergency Department Integration Software data are reported to the Medical Executive Board (MEB) on a quarterly basis for evaluation of performance. When issue are identified requiring a process improvement team, the MEB will refer the issue to the Quality Executive Board for further evaluation and appropriate action.

Recommendation 2. We recommended that the Facility Director ensure that planned actions to address patient flow (hire additional providers and extend hours for the non-urgent area) are implemented and that patient flow outcomes are monitored.

Concur **Target Completion Date:** 1/18/13

Facility Response: Since the OIG evaluation, one (1) additional physician and four (4) nurse practitioners have been hired. The Urgent Care hours have expanded to stay open until 9:00 pm. In the ED, the shifts have been realigned to provide more overlapping coverage. In addition, the medical center is actively seeking more fee-based providers. The medical center has identified Fee providers established to address demand and coverage needs. A process improvement team is ongoing to evaluate processes and implement action to improve flow. The team is examining data on lab, imaging, and consults. Data will be aggregated, tracked, and trended with a report of progress and outcome evaluation reported to the MEB each month

for the next month and then every other month as a standing recurring report.

Recommendation 3. We recommended that the Facility Director ensure that Emergency Department providers and other clinical and administrative staff receive training on the use of Emergency Department Integration Software delay reasons and that accuracy is monitored.

Concur **Target Completion Date:** 2/1/13

Facility Response: Education and training on the use of the Emergency Department Integration Software delay reasons to ED providers and other clinical and administrative staff by 2/1/13. Random reviews of staff utilizing the Emergency Department Integration Software will be conducted after the education has been completed to ensure accuracy.

Appendix C

OIG Contact and Staff Acknowledgments

OIG Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
Acknowledgments	Randall Snow, JD, Project Leader Katharine Foster, RN, Team Leader Donna Giroux, RN Thomas Jamieson, MD Natalie Sadow-Colón, MBA, Program Support Assistant

Appendix D

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