Department of Veterans Affairs
Office of Inspector General

Healthcare Inspection

Emergency Department Delays
Memphis VA Medical Center
Memphis, TN

Report No. 11-04090-253

August 15, 2012

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 received allegations from a complainant that census in the Emergency Department (ED) at the Memphis VA Medical Center, Memphis, TN, exceeds bed capacity on a regular basis, compromising patient safety. The Hotline Division of the Office of Inspector General initially referred this complaint to the Veterans Integrated Service Network (VISN) 9 for response. Because the VISN's response did not fully address the allegations, we initiated an inspection.

The complainant specifically alleged that on August 1, 2011, conditions in the ED included patients on stretchers in the hallway, a shortage of telemetry beds, and excessive wait times. The complainant also alleged the following were conditions of a chronic nature: shortage of hospital beds; long waits for transfers from ED; insufficient number of telemetry beds in the ED; insufficient ED equipment and supplies; frequent management refusal to grant diversion; and management unresponsiveness to these conditions.

We substantiated that on August 1, 2011, census in the ED exceeded capacity and some patients were in the ED as long as 14 hours awaiting admission or transfer. We did not substantiate that patients in need of cardiac monitoring were left unattended on stretchers in the hallway. We found that the facility's sustained performance for ED length of stay (LOS) is far below the VHA standard. Many factors, including inappropriate ED visits, contributed to ED delays. With the exception of availability of ultrasound services, we found that ED resources were adequate. We were unable to substantiate that management had denied appropriate requests for diversion. We found that Emergency Department Integrated Software, and Veterans Health Information Systems and Technology Architecture data related to ED LOS times were unreliable.

We substantiated that management was aware of these issues but had not taken adequate action for resolution. We reviewed 38 ED patients' electronic health records and did not find that these patients experienced negative outcomes as a result of excessive ED LOS.

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

TO: Director, VA Mid South Healthcare Network (10N9)

SUBJECT: Healthcare Inspection – Emergency Department Delays, Memphis VA Medical Center, Memphis, TN

Purpose

The VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an inspection to determine the validity of allegations regarding the Emergency Department (ED) at the Memphis VA Medical Center, Memphis, TN, (the facility). A complainant alleged that the ED census exceeds bed capacity on a regular basis, compromising patient safety. The Hotline Division of the Office of Inspector General initially referred this complaint to the Veterans Integrated Service Network (VISN) 9 for response. Because the VISN's response did not fully address the allegations, we initiated an inspection.

The complainant specifically alleged that on August 1, 2011, conditions in the ED included patients on stretchers in the hallway, a shortage of telemetry[1] beds, and excessive wait times. It was alleged that three patients could have been adversely affected by these conditions.

The complainant also alleged the following were conditions of a chronic nature:

- Shortage of hospital beds.
- Long waits in the ED for patients being transferred out.
- Insufficient number of telemetry beds in the ED.
- Insufficient ED equipment and supplies.
- Frequent management refusal to grant diversion[2].
- Management unresponsiveness to these conditions.

[1] Telemetry is equipment that permits continuous cardiac monitoring from remote locations.
[2] Diversion is when patients arriving by ambulance cannot be accepted because the required services or beds are not available, staffing is inadequate, or a disaster has disrupted normal operations. In this situation, patients are diverted to another facility for treatment.

Background

The facility provides primary, secondary, and tertiary care for veterans in Western Tennessee and parts of Mississippi and Arkansas. The facility ED has 22 beds and in fiscal year (FY) 2011, there were 30,346 patient encounters in the ED.

Veterans Health Administration (VHA) requires ED Registered Nurses (RNs) to use the Emergency Severity Index (ESI) to triage patients in the ED.[3] ESI Level 1 requires immediate physician involvement and ESI Level 2 (high risk, time sensitive, includes suicidal and homicidal patients) indicates a high acuity[4] level, and patients are expected to require higher levels of resources. ESI Levels 3 and 4 are assigned to patients with a lower acuity. ESI Level 5 patients are not expected to require any additional resources such as laboratory and radiology services, intravenous fluids or medications, specialty consultation, or other procedures.[5]

In recent years, VHA has increased the focus on patient flow to promote efficiency. The emphasis is on improving access and ensuring that patients get the right care at the right time at the right place.[6] These principles can be applied to the inpatient or outpatient setting. A key measure of patient flow is a patient's length of stay (LOS) in the ED.

The Institute of Medicine, in a 2007 report, describes that when demand exceeds ED capacity, ED crowding, boarding of patients waiting for admission, and ambulance diversion can occur. According to the report, "boarding not only is frustrating and at times hazardous for the patient, but also adds to an already stressful work environment for physicians and nurses, and enhances the potential for errors, delays in treatment, and diminished quality of care."[7] The Emergency Nurses Association states, "overcrowded emergency departments place patients at risk for prolonged pain and suffering, and poorer outcomes of care."[8]

Scope and Methodology

We conducted a site visit February 7-9, 2012, and interviewed the Chief of Staff (COS), the ED Chief Medical Officer (ED CMO), ED physicians and nurses, and other clinical, administrative, and quality management staff with knowledge relevant to the allegations. For background information, we contacted the VHA Clinical Director for Systems Efficiency and Flow Improvement. We reviewed standards from The Joint Commission,

[3] VHA Handbook 1101.5, *Emergency Medicine Handbook,* May 12, 2010.
[4] Acuity is the severity level of an illness.
[5] http://www.ahrq.gov/research/esi/esi1.htm accessed April 12, 2012.
[6] In 2006, the Veterans Health Administration launched a Flow Improvement Inpatient Initiative (FIX), and patient flow initiatives expanded thereafter.
[7] Institute of Medicine/National Academies Press. *Hospital Based Emergency Care: At the Breaking Point*. 2007.
[8] Emergency Nurses Association Position Statement, *Holding Patients in the Emergency Department,* 2002.

Institute of Medicine, American Academy of Emergency Medicine, Emergency Nurses Association, and Institute for Health Improvement. We reviewed VHA and local policies, committee minutes, data from Veterans Health Information Systems and Technology Architecture (VistA)[9] Appointment Management and Emergency Department Integrated Software (EDIS) [10], and other relevant documents. We also reviewed the electronic health records (EHRs) of patients treated in the facility's ED during the timeframe of the allegations.

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: Excessive Wait Times and Patient Safety

We substantiated the allegation that patient census exceeded bed capacity in the ED on August 1, 2011. We also substantiated that significant patient flow issues created excessive wait times for patients in the ED. However, we did not find that patients were harmed due to these delays.

The facility was on diversion due to high census on August 1 from 4:30 to 6:30 p.m. and from 7:30 to 8:30 p.m. Through EHR reviews, we determined that at 7:00 p.m. there were 33 patients checked in to the ED. Five of these 33 patients had arrived by ambulance earlier in the day. Seventeen of the 33 patients were ultimately admitted to the facility or transferred to another hospital. Two patients left without being seen by an RN or physician. The average ED LOS for the nine patients who were admitted to the facility was over 10 hours, with a range of 4 to nearly 15 hours. The average ED LOS for the eight patients who were transferred to another hospital was over 9 hours, with a range of 6.5 to 14 hours. We noted that the patient with a 14-hour LOS waited 7 hours for a specialty consultation that, according to the Chief of Ambulatory Care, should have occurred within 1 hour.

Patient Safety. We did not substantiate that patients who needed electrocardiograph (ECG) monitoring were left unattended on stretchers in hallways. We found, however, that one patient was placed on a portable monitor because there was no available bed with continuous ECG monitoring. ED staff placed the patient on a stretcher next to the

[9] Veterans Health Information Systems and Technology Architecture (VistA) is an integrated system of software applications that supports patient care.

[10] EDIS is a mechanism to capture data on patient throughput in the ED. Often referred to as the "bed board," this system typically features a large display screen in the ED as well as access to real time ED data and flow via computer desktops.

nursing station in order to monitor him closely. ED staff told us that it is customary for patients arriving via ambulance to be held in the hallway, attended by Emergency Medical Services personnel, until a bed is available in the ED. The ED has 13 beds with continuous ECG monitoring capability, plus 2 portable monitors. Sixteen of the 33 patients in the ED at 7:00 p.m. were on ECG monitors at some point during their ED stay.

We reviewed the ESI levels of the patients in the ED the evening of August 1. We found that there were:

- No ESI Level 1 (highest acuity) patients
- 7 ESI Level 2 patients
- 16 ESI Level 3 patients
- 5 ESI Level 4 patients
- No ESI Level 5 patients
- 2 patients left prior to triage; therefore, no ESI level was assigned
- 3 patients did not have an ESI level documented in the EHR

We reviewed the EHRs of the three patients treated in the ED on August 1 who the complainant felt could have been harmed by the ED delays they experienced. We did not substantiate that any of these patients experienced adverse outcomes. Although we found that all three patients had a long ED LOS while waiting for admission or transfer, they received adequate care during their ED stay.

- Patient 1 arrived at the ED and was seen by the triage RN within 13 minutes. An ESI level was not found in the EHR. The physician saw the patient within 15 minutes of triage. The patient's condition was initially stable. Several hours later, his condition deteriorated, requiring aggressive treatment. The patient was admitted to the Medical Intensive Care Unit. The ED LOS was 9.5 hours.

- Patient 2 arrived at the ED, was seen by the triage RN within 35 minutes, and assessed as an ESI Level 2. The physician saw the patient 2 hours and 45 minutes later. This mental health (MH) patient was kept on 1:1 observation until transfer to a community hospital was arranged. The ED LOS was 7.3 hours.

- Patient 3 arrived at the ED, was seen by the triage RN within 20 minutes and assessed as an ESI Level 3. He was then sent to the waiting room. The physician saw the patient 3 hours later and noted abnormal changes on the ECG. Aggressive treatment was initiated in the ED and transfer to a community hospital was arranged. The ED LOS was 11 hours.

To explore the possibility that negative outcomes related to ED delays may have occurred at other times, we reviewed the EHRs of the five patients who died in the ED during 2011. It did not appear that any of the patient deaths were related to delays in the ED. Two patients were enrolled in hospice and expired before they could be moved to an inpatient bed. One patient arrived in cardiac arrest and was treated immediately, but the cardiopulmonary resuscitation was not successful. Another patient was found to be dead on arrival. The fifth patient, in respiratory distress upon arrival, was seen by the ED physician within 5 minutes and placed on a ventilator, but expired 2 hours later.

Wait Times. We substantiated that excessive LOS in the ED is a chronic problem at the facility. The VHA target for ED LOS is that no more than 10 percent of patients in the ED should experience a LOS greater than 6 hours. We reviewed facility ED data from July 31, 2011, through December 31, 2011. We found that on average, 27 percent of patients had an ED LOS greater than 6 hours.

Patient Flow Coordinators. VHA facilities may utilize Patient Flow Coordinators (PFCs) to facilitate the efficient movement of patients from one care setting to another. PFCs follow facility admissions, discharges, and transfers, and monitor the availability of inpatient beds. During evenings, nights, and weekends, there is no PFC on duty. At those times the Nursing Supervisor, who has other responsibilities and is unable to focus solely on patient flow, assumes the role. The ED also has three full-time RNs designated as ED Flow Coordinators. Coverage is provided most days from 7:00 a.m. until midnight, although there is not coverage every night or weekend. We found that ED LOS had not improved since November 2010, despite the addition of ED Flow Coordinator positions.

Inpatient Beds. Managers and staff told us that the most significant factor influencing ED LOS was the availability of inpatient medical-surgical beds. In May 2010, based on recommendations from the Inpatient Evaluation Center (IPEC)[11], the facility reduced the number of operating inpatient beds to improve the RN to patient ratio. The number of operating acute care beds decreased by 19 (from 127 to 108). Staff told us that the loss of this capacity negatively affected ED patient flow.

An important determinant of the availability of medical-surgical beds is the extent to which patients are promptly discharged when acute inpatient care is no longer needed. We were told that the facility performed poorly with respect to VHA's goal of having more patients discharged earlier in the day so that beds can be cleaned and made available for patients waiting for admission. Many staff we interviewed complained about the lack of cooperation from inpatient units to help move patients out of the ED.

[11] IPEC measures and reports risk adjusted mortality and LOS for patients in VHA acute care settings and develops benchmarks for quality of care outcomes. IPEC staff may perform site visits to facilities that are "outliers" on outcomes data. IPEC has the authority to make recommendations to facilities (including reducing the number of operating inpatient beds).and to require that facilities take corrective action to improve mortality data.

Patient Transfers. When there are no beds available at the facility, patients may be transferred to a community hospital. However, once a bed becomes available, efforts are often made to transfer the patient back to the facility. We were told that this cycle is difficult for patients, inconvenient for ED staff, and may strain the facility's relationship with community hospitals.

We were told by ED physicians that the current protocol is to wait for up to 6 hours prior to initiating a transfer to see if any inpatient beds might become available to avoid this cycle. Unfortunately, this practice greatly increases patients' ED LOS. ED physicians told us that in the past, they were allowed to initiate transfer to a community hospital sooner.

The ED CMO told us that ED policy was that once a transfer was initiated, it could not be stopped, even if an inpatient bed became available prior to the transfer. The ED CMO stated this was to keep the facility from "burning bridges" with community hospitals. This practice further contributes to the inefficiencies.

Mental Health Admissions. We were told that there is no mechanism in place to admit MH patients to the facility between the hours of 10:00 p.m. and 5:00 a.m., even if there are acute MH beds available. During these hours, every patient who presents with acute MH symptoms is transferred to a community hospital by ambulance. ED staff told us this creates considerable "re-work" as MH patients who are transferred at night are often sent back to the facility the next day via ambulance. The facility maintains continual MH coverage in the ED as required by VHA[12] by having a social worker present during the evening and night tours, but has no psychiatrists or residents available to admit patients to the acute MH units during these hours.

Inappropriate ED Visits. During our site visit in February, we observed ED processes, including use of the EDIS system. EDIS reflected that 8 of 22 patients checked in to the ED at that time presented with non-emergent conditions that could have been managed in a primary care setting. At the time of our visit, the primary care clinics were open.

ED Flow Coordinators, ED staff, and the Patient Advocate staff told us that it is not uncommon for some patients to receive all of their primary care from the ED, and that many of these patients had no primary care provider assigned. We were told that there is a "huge volume" of high ESI (low acuity) patients being seen in the ED instead of in the primary care clinics. Patients coming to the ED for medication refills was cited as one of the most common reasons for inappropriate ED visits.

We were told that when patients cannot access the primary care clinics in a timely manner, they frequently use the ED for prescriptions and other needs after discharge from

[12] VHA Directive 2010-008, *Standards for Mental Health Coverage in Emergency Departments and Urgent Care Clinics in VHA Facilities,* February 22, 2010.

a community hospital. Patient Advocate staff also told us that many patients complain about difficulties reaching telephone triage staff. They come to the ED for medication refills and other non-acute needs because they cannot reach anyone by phone.

When reviewing the EHRs of the patients seen in the ED on August 1, 2011, we noted a lack of coordination between the ED and the primary care clinics. We found that one patient seen in the ED was sent home prior to receiving his chest x-ray results. The ED provider called the patient the next day, informed him that the results were abnormal, and instructed him to come back to the facility for a Computed Tomography (CT) scan. The patient came to the ED the next day, was sent to Radiology, then back to the ED for discharge. At no point was his primary care team involved in this non-urgent care. Another patient was transferred from the ED to a community hospital; at discharge 5 days later, he returned to the ED for medications. An ED provider saw the patient and ordered his medications, but follow-up with the patient's primary care provider was not arranged.

We also found that administrative staff were not involved in the ED check out process. This represents a missed opportunity to schedule primary care follow-up appointments for patients discharged from the ED, and contributes to the inappropriate use of the ED for non-emergent care.

Issue 2: Adequacy of ED Resources

We substantiated that ED census may exceed available ECG monitoring capabilities at times of high census. However, we did not find that the 38[13] patients whose EHRs we reviewed experienced negative outcomes as a result. Airway management equipment may not have been available in the ED at the time of the allegation, but had been supplied by the time of our site visit. Ultrasound services were not readily available by in-house or on-call staff 24 hours a day as required. We found ED staffing to be adequate.

Beds and ECG Monitoring Capability. The main ED has 13 beds with continuous bedside and central ECG monitoring capability. Oxygen delivery systems are also available in these 13 rooms. Two portable ECG monitors are also available. Physically located outside the main ED (but still considered part of the ED), are six beds without bedside ECG monitoring or oxygen delivery systems, three fast track[14] beds, and a two-bed area designated for high-risk psychiatric patients. If more than 13 patients need continuous monitoring at the same time, ED staff will place these patients on a portable monitor. These monitors cannot be centrally viewed and require a nurse to be at the bedside continuously to view the monitor. We were told that if a patient arrives who requires continuous ECG monitoring and no monitored beds are available, patients not

[13] We reviewed the EHRs of 33 patients treated in the ED the evening of August 1, 2011, and 5 patients who died in the ED during 2011.

[14] An area within the ED designated for the treatment of minor injuries or illness.

requiring ECG monitoring are moved to other beds in order to free up a bed with ECG monitoring capability for the new arrival. While this may be inconvenient to patients and staff, we could not substantiate any harm to patients from this practice.

Equipment and Supplies. We found that the ED had the patient care supplies required by VHA[15]; however, the layout of the ED did not facilitate easy access to equipment storage areas. The complainant alleged that airway management equipment was not readily available in the ED. By the time of our site visit in February, this equipment had been placed into service. However, it appeared that the equipment had not been available at the time of the allegation. We found that some procedure kits were stored in areas not typically used for patient care supplies, and were not routinely checked for expiration dates. Two of five kits were expired. At the time of our visit, a tonometer[16], which is a piece of equipment recommended by VHA for EDs, had been available since October 2011, but was not in use, pending training of the ED physicians.

Ultrasound Services. We learned that the facility does not have ultrasound technicians available for ED patients between the hours of 5 p.m. and 8 a.m.. If an ED patient requires an ultrasound test during these hours, the facility transports the patient by ambulance to and from a community hospital for the procedure. We were told this process could take up to 6 hours. VHA requires that emergency ultrasound services for the diagnosis of obstetric or gynecologic, cardiac, and hemodynamic problems and other urgent conditions must be readily available 24 hours per day by in-house or on-call staff for emergency patients.[17] The facility had ultrasound equipment available; however, we were told that staff were not called in after 5 p.m. to perform the test.

Staffing. We heard complaints about ED nurse staffing, but ED staff felt that the ED had adequate physician staffing. The ED nurse staffing plan was in compliance with VHA requirements at the time of the allegation. VHA requires that EDs must have a minimum of two RNs available in the ED at all times for direct patient care.[18] We found that the facility had the minimum required physician and RN staffing on duty on August 1, 2011. Six RNs, five physicians, three health technicians, and three transporters were on duty at 7:00 p.m.. None of the three ED Flow Coordinators were on duty that evening or night.

Issue 3: Management Responsiveness

We substantiated that management was aware of the delays in the ED but did not take adequate action to resolve the issues. We found lack of a coordinated, system-wide effort

[15] VHA Handbook 1101.05, *Emergency Medicine Handbook,* May 12, 2010.
[16] Equipment used to measure pressure inside the eye
[17] VHA Handbook 1101.05.
[18] VHA Directive 2010-010, Standards for Emergency Department and Urgent Care Clinic Staffing Needs in VHA Facilities, March 2, 2010.

to solve known problems. Facility managers provided us with information about several initiatives that had been developed to address ED flow issues, including the addition of ED Flow Coordinators in November 2010. However, while managers were aware that ED LOS data was not improving, action plans and initiatives were not fully implemented.

Systems Redesign Project. In 2010, the facility engaged in a systems redesign[19] project to address ED flow. A facility team set targets that:

- No more than 20 percent of ED patients not admitted to the facility would have an ED LOS greater than 6 hours.
- No more than 25 percent of ED patients admitted to the facility would have an ED LOS greater than 6 hours.

These targets are less stringent than the VHA goal that no more than 10 percent of all ED patients should have an ED LOS greater than 6 hours. Based on data provided, the ED LOS did not improve as a result of this project, and in September 2010, 27.3 percent of non-admitted patients had an ED LOS greater than 6 hours, and 39 percent of admitted patients had an ED LOS greater than 6 hours. We were told that no further efforts for systems redesign in the ED were undertaken. The most recent data provided to us showed that on average, 27 percent of ED patients were still experiencing ED LOS greater than 6 hours.

IPEC Action Plan. We reviewed the multi-item action plan created by the facility to address 2010 IPEC findings. We were told that facility leadership reviews this action plan on a monthly basis to track progress. ED LOS is an item on this plan. Comments from month to month indicate that the action plan for the ED is not progressing. One action that remains unimplemented was development of a clinical decision protocol.[20] The ED CMO told us that he anticipated this would decrease ED LOS by reducing the time from patient arrival to decision to admit. The implementation date had been delayed several times. As of our site visit in February 2012, this had yet to be implemented.

The Joint Commission expects that "the individuals who manage patient flow processes review measurement results to determine that goals were achieved" and "leaders take action to improve patient flow processes when goals are not achieved."[21]

Utilization Management. Utilization Management (UM) is a component of VHA's Quality Management program. VHA requires that each facility have a UM committee

[19] Systems Redesign is the purposeful effort to identify and improve systems problems with an emphasis on decreasing delays, eliminating waste, minimizing variability, and reducing the potential error through process improvement techniques.
[20] Clinical decision protocol refers to a tool, typically an algorithm, that simplifies that decision making process by honing in on key variables which determine a course of action.
[21] Joint Commission Hospital Accreditation Program, Standard LD.04.03.11

that focuses on resource utilization to "ensure quality and operational efficiency across the care continuum."[22] Facility UM programs are also tasked with identifying delays in services and including UM data in local quality improvement initiatives. We were told by staff that the UM Committee was the only facility work group or committee looking at ED LOS issues. The ED CMO is a standing member of the UM Committee; however, a review of UM Committee minutes for FY 2011 showed that the ED CMO attended only 1 of 11 meetings. Although ED patient flow was a standing agenda item, it was not discussed at these meetings due to his absence.

Inaccurate Data. We were told that the data used by the facility to assess ED patient flow is from information manually entered by staff into the EDIS system. We found that the data was not validated for accuracy, trended, or consistently evaluated. The ED CMO provided us with a spreadsheet of EDIS data. According to the spreadsheet, three patients died in the ED during the first week of August 2011. This did not agree with data we received from the facility's Quality Management Service. The ED CMO verified that the data entered in EDIS was incorrect and the three patients had not died.

We used VistA Appointment Management data to determine how many patients were treated in the ED during specific timeframes. According to facility VistA data, there were 55 patients checked into the ED on August 1, 2011, at 7:00 p.m. When we compared this data with information from the patients' EHRs, we found that there were actually 33 patients checked into the ED. We also found that the checkout time was incorrect in VistA for most ED patients in our sample. EHR reviews showed that the checkout time in VistA matched the date and time that the treating ED physician signed the discharge progress note rather than the time the patient actually left the ED. Since many notes were not signed until the following day or later, this data was highly inaccurate. We noted that one patient had an inaccurately recorded ED stay of 35 days. Without reliable data, performance improvement efforts may not be appropriate or effective.

Patient Advocate Data. We reviewed patient complaint data and reports from the Patient Advocate Tracking System (PATS). We found 36 complaints about ED wait times during FY 2011. Patient Advocate staff told us that patient complaints about the ED are usually about wait times.

Customer Service staff told us that the facility does not perform any trending of patient complaints by area or service. Data is made available to services for their own analysis; however, this is not required. ED managers had not tracked, trended, or analyzed PATS data for opportunities for improvement.

[22] VHA Directive 2010-021, *Utilization Management Program,* May 14, 2010.

Diversion. We could neither confirm nor refute the allegation that management frequently denied requests for facility diversion. The mechanism for documenting diversion is a log maintained by the Medical Administration Assistants (MAAs) in the ED. The log only reflects when diversion requests are approved. We found conflicting documentation about diversion status between the MAA log and email records provided to us.

Staff told us that requests for diversion are usually approved by the COS in 1 or 2 hour increments. According to local policy, diversion is appropriate when there is only one inpatient bed and one monitored ED bed available or **"**the safe limits of capacity have been reached."[23] ED staff told us that denial of diversion by the COS did not occur frequently.

The facility provided conflicting evidence about whether diversion occurred on August 1, 2011. Facility managers reported to us that there was no diversion on that date and the MAA log did not report diversion status for August 1. However, we were told that diversion was in effect on the evening of August 1, and we were provided with an email documenting that the COS approved diversion between 4:30 and 6:30 p.m. and from 7:30 to 8:30 p.m..

Conclusions

We substantiated that on August 1, 2011, census in the ED exceeded capacity and some patients were in the ED as long as 14 hours awaiting admission or transfer. We did not substantiate that patients in need of ECG monitoring were left unattended on stretchers in the hallway. One patient on a stretcher was put on a portable monitor and placed next to the nursing station for safety when all the monitored beds were in use.

We found that the facility's sustained performance for ED LOS is far below the VHA standard. Although closure of inpatient beds is a contributing factor, several other possibly avoidable factors, such as inability to admit MH patients at night, delays in the admission and transfer process, and lack of coordination with the primary care clinics also contributed to ED flow issues. With the exception of availability of in-house or on-call staff for 24-hour ultrasound services, we found that ED resources were adequate. We were unable to substantiate that management had denied appropriate requests for diversion, as no record is kept of requests that are denied. We found that EDIS and VistA data were inaccurate and recorded ED LOS times were unreliable.

We substantiated that management was aware of these issues but had not taken adequate action for resolution. We reviewed 38 ED patients' EHRs and did not find that these patients experienced negative outcomes as a result of excessive ED LOS. The potential

[23] Memphis VA Medical Center Policy Memorandum 11-20, *Medical Center Diversion Policy,* May 21, 2010.

for harm exists, however, if the ED flow problems continue. Boarding patients awaiting admission for lengthy periods "…enhances the potential for errors, delays in treatment, and diminished quality of care."[24]

Recommendations

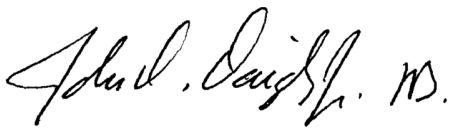
Recommendation 1. We recommended that the Facility Director take appropriate action to reduce ED LOS.

Recommendation 2. We recommended that the Facility Director ensure that ultrasound services for ED patients are readily available by in-house or on-call staff 24 hours a day as required.

Recommendation 3. We recommended that the Facility Director ensure the accuracy of data entered in EDIS and VistA related to ED visits.

Comments

The Veterans Integrated Service Network and Medical Center Directors agreed with our findings and recommendations and provided acceptable improvement plans. (See Appendixes A and B, pages 13-18, 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

[24] Institute of Medicine.

Appendix A

VISN Director Comments

Department of Veterans Affairs **Memorandum**

Date: June 22. 2012

From: Director, VA Mid South Healthcare Network (10N9)

Subject: **Healthcare Inspection – Emergency Department Delays, Memphis VA Medical Center, Memphis, TN**

To: Director, Bay Pines Regional Office of Healthcare Inspections (54SP)

Director, Management Review Service (VHA 10A4A4 Management Review)

1. Please see the attached response to the VA Office of the Inspector General (OIG) Healthcare Inspection – Emergency Department Delays, Memphis VA Medical Center, Memphis, TN conducted February 7 – 9, 2012.

2. I concur with all recommendations.

3. Contact Tammy Williams, VISN 9 CRR Coordinator if you have any questions or need additional information.

//s//
John Dandridge, Jr.

Appendix B

Medical Center Director Comments

Department of Veterans Affairs **Memorandum**

Date: June 20, 2012

From: Director, Memphis VA Medical Center (614/00)

Subject: **Healthcare Inspection – Emergency Department Delays, Memphis VA Medical Center, Memphis, TN**

To: Director, VA Mid South Healthcare Network (10N9)

1. Attached please find the VA Medical Center at Memphis' response to the Heathcare Inspection – Emergency Department Delays (2011-04090-HI-0319) conducted February 7-9, 2012.

2. If you have any questions regarding the information provided, please contact Jan Slate, Accreditation Manager, Quality Management and Performance Improvement. Mrs. Slate can be reached at (901) 577-7379 menu choice #5.

\s\

JAMES L. ROBINSON, III, PSY.D

Medical Center Director

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 take appropriate action to reduce ED LOS.

Concur **Target Completion Date:** August 31, 2012

Facility's Response: Emergency Department (ED) length of stay (LOS) is dependent on the volume of incoming patients, staffing levels, and hospital wide services required to achieve a final disposition (inpatient admission versus discharge to home). To address the process as a continuum of care, the Medial Center has embarked on a comprehensive flow process analysis which begins with ED entry and continues through ED discharge or admission to inpatient unit. Four months ago, a multidisciplinary team was convened by the Chief of Staff to review the bed cleaning and ED flow. Six weeks ago the Chief of Staff requested assistance from Chief, Quality Management to address global hospital throughput which ultimately contributes to ED LOS. Subcommittees were tasked with identifying problems and developing action plans. Metrics were created and progress is being systematically tracked weekly on a Throughput Action Tracker (TAT).

The TAT is focusing on strategies previously proven to reduce LOS, including but not limited to reduction of inappropriate ED visits by maximizing Patient Aligned Care Team (PACT) same day access, implementation of a Patient Care Assistance Desk to navigate non-urgent care to PACT and away from ED to improve care coordination, increasing discharges before noon, using holding orders by ED staff to expedite discharges from the ED, creating a centralized admissions office with core departments and a pre-diversion alert system to mobilize staff, and using progressive bed huddles to help alleviate barriers to admission due to non-ED related factors.

Granular accomplishments to date include:

-the establishment of a Patient Care Assistance Desk pilot slated to be completed by the middle of July 2012. Metrics will be assessed at that time and a decision to extend the program or end it will be made.

-establishment of PACT same day access in Primary Care

-PACT members are reviewing ED visit data, are contacting Veterans and providing education about using the PACT instead of ED for non urgent issues

-Service agreement between Medical Service and the ED allowing ED physicians to enter holding orders

-Expansion of Mental Health and Med/Surg admissions capacity

The current manual order system in the ED has clear limitations and risks. Transition to Provider Order Entry (POE) in the ED is planned. The framework for this project began in 2011. Once hardware and software are in place, implementation will begin a target date of the middle of July 2012. Clinical Decision Pathways (CDP) which streamline care and help reduce patient LOS will be implemented once POE is initiated. The CDP protocols have been developed and are awaiting POE for full implementation. The protocols encompass common ED conditions such as chest pain, COPD & asthma exacerbation, CHF, etc. It is slated to begin in August 2012.

The ED has some internal nursing and health tech shortages and efforts are being made to improve staffing and stabilize flow. These actions are being tracked on the TAT.

Since this OIG review in February 2012, VAMC Memphis has opened six additional Medical/Surgery beds and nine additional Mental Health beds. As a result, the frequency of transfers to community hospitals has decreased. The Medical Center plans to open five additional Mental Health beds by the end of July 2012 to further reduce community transfers. Since transfers delay the admission process and impact the LOS in the ED, adding in-patient beds is expected to reduce ED LOS. Previously, Mental Health admissions on the night shift were being sent to community facilities but we implemented 'holding order sets' 2 months ago and have not sent a mental health patient out overnight since.

Recommendation 2. We recommended that the Facility Director ensure that ultrasound services for ED patients are readily available by in-house or on-call staff 24 hours a day as required.

Concur **Target Completion Date:** August 31, 2012

Facility's Response: The ED currently averages 6-8 emergent ultrasound studies per month. Although this is a very small percentage of total ED encounters, the organization recognizes the benefit of 24 hour ultrasound service as opposed to our current system of transporting ED patients to and from local hospitals. Positions for intermittent and fee basis ultrasound technologists were approved for recruitment 4 months ago. Two applicants have tentatively accepted positions to fill this need. The Radiology Service is actively interviewing other interested candidates with anticipation of completely staffing after hours and weekend coverage for the department by August 30, 2012. STAT reports for emergent after hours cases will be supplied via our contractual agreement with the National Teleradiology Program, a VA Teleradiology Program.

Recommendation 3. We recommended that the Facility Director ensure the accuracy of data entered in EDIS and VistA related to ED visits.

Concur **Target Completion Date:** August 31, 2012

Facility's Response: The Emergency Department (ED) understands the importance of information accuracy. There are multiple inputs into the tracking board but there have been errors with the entries. We are anxiously awaiting the release of software updates for the tracking data. It will have training videos built in to help educate the staff.

All Registered Nurses have been trained on the EDIS, and it has become a component on their annual review of competencies. The ED physicians have received EDIS training and will be re-educated by the end of August, 2012. Effective EDIS utilization has become part of ED physician OPPE, performed every 6 months.

There is an ED subcommittee to address EDIS and accuracy. Its focus is on creating local super users, who help troubleshoot issues. The Patient Care Coordinators (PCC), who act as patient flow managers and nursing shift

coordinators in the ED, assist with monitoring the accuracy of the data and intervene as needed. The monitoring reports will be reviewed daily by the ACOS, Ambulatory Care and reported weekly to the Throughput Action Tracker (TAT) group. The ED Medical Director participates in validation efforts with the National EDIS team, partnering to provide reliable data. It is our intention to use the national data to study and benchmark local ED flow.

The TAT is reported to and reviewed weekly by the Medical Center Director, the Chief of Staff, the Associate Medical Center Director for Patient Care, and the Associate Medical Center Director.

Regarding VistA Appointment Manager, there is going to be a difference between the ED waiting time depending on if VistA Appointment Management or EDIS is reviewed.

This is because the checkout time in VistA is a reflection of the time that the ED note is signed by the physician. The note might be signed immediately after seeing the patient or hours after the patient was discharged. The note might be signed when the decision is made to admit, but then the admitting team comes to evaluate the patient and writes admission orders and an H&P. In these two cases, the checkout time in VistA does not accurately reflect the "time the patient left the ED". For this reason, VistA cannot be used to monitor ED waiting time. A patient is loaded in EDIS when he/she checks into the ED and is removed from EDIS when he/she leaves the ED. EDIS is the most accurate method to monitor patient check-in and checkout time (ED waiting time).

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	Christa Sisterhen, MCD, Project Leader Karen McGoff-Yost, MSW, LCSW, Team Leader Jerome Herbers, MD Carol Torczon, MSN, ACNP Wm. Eli Lawson, Program Support Assistant

Appendix D

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