Healthcare Inspection

Inadequate Staffing and Poor Patient Flow in the Emergency Department
VA Maryland Health Care System
Baltimore, Maryland

September 18, 2013
To Report Suspected Wrongdoing in VA Programs and Operations:
Telephone: 1-800-488-8244
E-Mail: vaoighotline@va.gov
Web site: www.va.gov/oig
Executive Summary

The VA Office of Inspector General Office of Healthcare Inspections evaluated the validity of allegations about the Emergency Department (ED) at the Baltimore VA Medical Center (facility), which is part of the VA Maryland Health Care System (system). A complainant alleged that because of severe shortages of beds and staff, patients had prolonged ED stays and were inappropriately left unmonitored for extended periods. The complainant also described poor patient flow and dysfunctional administrative processes.

We substantiated that there were staff shortages and found that the facility did not have contingency plans for ED staffing during periods of increased demand for patient care. The facility did not have a diversion policy as required by VHA. We found problems with patient flow from the ED to inpatient areas, and noted that data used by the facility to address flow issues was inaccurate. We also found a shortage of specialty (telemetry and isolation) beds; however, the facility had already initiated plans to expand specialized bed capacity. Further, we found that poor communication and sub-optimal composition of the Patient-Flow Committee contributed to deficiencies in the delivery of care.

We recommended that the Facility Director:

- Ensure that action plans address ED patient flow and length of stay, including specialty bed access.
- Develop an ED staffing policy that includes a contingency plan for additional physician and nurse staffing when patient care demands exceed available staffing resources.
- Ensure that data collection and the reporting process are strengthened.
- Ensure that a local diversion policy is developed and implemented.
- Ensure that the patient flow committee meets regularly, membership is reviewed for appropriateness, and follow-up actions are monitored.

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 10–16 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) conducted an investigation to determine the validity of allegations regarding the emergency department (ED) at the Baltimore VA Medical Center (facility), Baltimore, MD. A complainant alleged that:

- There were severe personnel shortages.
- Because of inadequate access to acute care telemetry\(^1\) and isolation beds, patients had to wait in the ED for hours, sometimes more than 24 hours.
- Patients were seated in chairs in the ED hallway while waiting for monitored beds to become available, and staff did not attend to them.
- The Patient Flow Committee had not met in five months.

Background

The Veterans Affairs (VA) Maryland Health Care System (system) is part of Veterans Integrated Service Network (VISN) 5. The system consists of three campuses, the Baltimore VA Medical Center (facility), the Perry Point VA Medical Center, and the Loch Raven VA Community Living & Rehabilitation Center, as well as five community based outpatient clinics. The system is affiliated with the University of Maryland School of Medicine and other local colleges and universities. The facility, with its ED and 137 beds, provides acute medical and surgical services.

Veterans Health Administration (VHA) policy requires ED Registered Nurses (RNs) to use the Emergency Severity Index (ESI)\(^2\) to triage patients who present to the ED for care. According to VHA Handbook 1101.05, “The ESI triage algorithm yields rapid, reproducible, and clinically relevant stratification of patients into five groups and provides a method for categorizing ED patients by both acuity\(^3\) and resource needs.”\(^4\) ESI Level 1 patients require immediate physician involvement. ESI Level 2 patients have high risk and time sensitive conditions; this group includes suicidal and homicidal patients. Patients assigned ESI Levels 3 and 4 have lower acuity and require fewer resources, such as laboratory and radiology services, intravenous fluids or medications, and specialty consultation. ESI Level 5 patients have lower acuity and are not expected to require additional resources.

Overcrowding in EDs, with provision of medical care in makeshift areas such as hallways, has long been associated with higher than normal patient-to-nurse ratios.\(^5\)

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\(^1\)Telemetry is the monitoring of patients’ vital signs using a life-sign measurement device, such as an electrocardiogram.


\(^3\)Acuity level refers to the severity of an illness.


ED crowding is the result of “boarding” (holding) patients in the ED until an inpatient bed is available. This practice deprives patients of the services, expertise, and equipment available on inpatient units and may contribute to morbidity and mortality.

Length of stay (LOS) for ED is defined from the time of a patient’s arrival to ED disposition, such as admission, transfer, or discharge and is used as a key indicator of adequate patient flow. VHA’s target for ED LOS is that no more than 10 percent of patients in the ED should experience a LOS greater than 6 hours. Extended LOS resulting from crowding can lead to patients leaving without being seen, compromised medical care, and patient complaints. In recent years, VHA has emphasized the need for optimal patient flow to ensure the delivery of the right care at the right time and at the right place.

Scope and Methodology

We conducted a site visit November 13–15, 2012. We reviewed standards from The Joint Commission, American College of Emergency Physicians, Emergency Nurses Association, and VHA Quality Metrics. We reviewed VHA and local policies, committee minutes, data from ED Integrated Software (EDIS), Patient Advocate Tracking System (PAT), and other relevant documents. The facility did not have a diversion policy as required by VHA. We also reviewed the electronic health records (EHRs) of patients treated in the facility’s ED during the timeframe of the allegations.

To evaluate the allegation that there were personnel shortages in the ED, we compared physician staffing data and the surge-physician supplemental plan, a plan to augment ED staffing when the number of patient visits exceeded the ability of available providers to deliver safe care. We selected 2 days with a high-volume of patients and an excessive LOS and reviewed actual physician staffing and the use of the surge-physician plan for those days. Additionally, we reviewed the facility's local ED RN staffing plan levels, and selected 5 days including one holiday and four high-volume weekdays. We reviewed the same source (original) ED staffing sheets from the requested days and compared required staffing with actual staffing for each 24-hour period.

To evaluate excessive LOS in the ED, we reviewed EDIS data, patient census reports, and the EHRs of a sample of patients. We compared the facility’s EDIS and LOS data, and performed a detailed analysis of a sample of 20 ED admissions on two high-volume days.


In 2006, the Veterans Health Administration launched a Flow Improvement Initiative (FIX).
We interviewed the facility’s Director, Chief of Staff, ED Chief Medical Officer, ED physicians and nurses, nurse managers, and other clinical, administrative, and quality management staff with knowledge relevant to the allegations.

We conducted the investigation 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: ED Staffing**

We substantiated the allegation of inadequate ED staffing.

**ED Physician Staffing**

VHA requires that facility leadership adequately staff the ED with qualified providers and develop a local staffing policy to address the number of providers needed during all hours of operation. Due to the complexity of the patient population in VHA, it is recommended using 2.0 patients per hour as the baseline rate for VHA emergency medicine physicians. However, ED patient volumes and hourly visits must be monitored to determine the ideal staffing pattern throughout the day. The facility’s policy should also provide contingency plans for augmenting ED staffing when the number of patient visits exceeds the ability of available providers to deliver safe care.

The facility contracted with the University of Maryland Medical Center (U of M) for physician services to provide emergency services to the facility. Although this contract included a surge-physician contingency plan, we found that the surge-physician roster was not utilized on days with high patient volume and excessive LOS in the facility’s ED. The ED Medical Director was the only physician to provide limited supplemental staffing.

**ED Nurse Staffing**

We substantiated the allegation that ED nurse staffing was not in compliance with the local staffing standard.

VHA Directive 2010-034 provides a nationally standardized method of determining appropriate direct care staffing levels for VA nursing personnel. The ED will be included in the second phase of development of this Directive in 2013. VHA uses the Emergency Nurses Association nurse staffing standard, which requires a minimum of two RNs be available at all times for direct patient care for level 1 EDs. In addition to adhering to the Emergency Nurses Association’s RN staffing standards, the facility

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12VHA Directive 2010-010.
developed its own staffing methodology for the ED. We reviewed the facility’s staffing plan, the same source (original) staffing record sheets from the requested days, and compared required staffing with actual staffing for each 24-hour period. The facility did not meet its required RN staffing in 3 of the 5 days reviewed. Although the night-shift staffing levels of three nurses met standards, we learned through interviews that extenuating circumstances sometimes prevented the night nurses from being able to triage walk-ins, or provide quality care to patients. For example, if a patient had an order for a computed tomography scan or ultrasound, two nurses were required to transport the patient to the radiology department or across the street to U of M for the procedure. This left one nurse remaining in the ED to cover the duties of three in managing ED patients.

The ED did not have its own per-diem nurse pool, nor did it have an on-call plan for its staff to provide contingency nurse coverage, when needed. The ED, according to local practice, relies on the nurse staffing office to provide additional staff. After reviewing staffing documents, we found that, at times, RN staff were supplemented by two health technicians or Certified Nursing Assistants. The nurses stated that the acute care units received priority for staffing needs.

Although we did not find examples of patients suffering adverse events due to staffing shortages, we did find a dedicated staff that felt frustrated by what they perceived as an inability to provide the quality of care their patients deserved due to staffing shortages.

**Issue 2: Excessive ED LOS**

We substantiated the allegation of excessive LOS and boarding in the ED.

VHA established targets requiring that no more than 10 percent of ED patients have LOS longer than 6 hours. The American College of Emergency Physicians defines “boarding” as the practice of holding patients in the ED after the decision to admit has been made. Boarding causes overcrowding in the ED, usually occurs because no inpatient beds are available, and impacts throughput in various hospital areas. VHA requires that facilities use EDIS software to track and manage patient throughput.

We found that senior leadership reviewed daily EDIS reports and based management decisions using EDIS data; however, they did not review detailed LOS data. We compared the facility’s EDIS and LOS data, and noted significant discrepancies. A detailed analysis of a random sample showed 9 of 20 patients had a LOS longer than 6 hours and 6 of the 20 patients had a LOS longer than 12 hours. The average LOS for this sample was 7.9 hours. The majority of staff we interviewed reported that ED wait time often exceeded 12 hours. A review of PATS reports showed that patients often complained about lengthy wait times in the ED.

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Due to frequent patient overflow and lack of available beds in the ED, staff had reserved a section of the ED to accommodate wheelchairs against a wall and referred to it as the “chair wall.” Overflow patients were placed in wheelchairs while waiting for ED beds to become available. Nurses were responsible for the care of “chair wall” patients while simultaneously caring for their assigned patients. We found this to be indicative of a systemic problem in patient flow and a potential risk to patient safety.

The following case studies are examples of excessive LOS:

<table>
<thead>
<tr>
<th>Case</th>
<th>Patient History</th>
<th>ESI*</th>
<th>Disposition</th>
<th>ED LOS**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>61-year-old (y/o) man with lethargy and low blood pressure attributed to dehydration.</td>
<td>3</td>
<td>Returned to an assisted living facility</td>
<td>19h 34m</td>
</tr>
<tr>
<td>2</td>
<td>59 y/o woman with palpitations and tachycardia.</td>
<td>3</td>
<td>Admitted to a telemetry unit</td>
<td>24h 8m</td>
</tr>
<tr>
<td>3</td>
<td>64 y/o man with left sided weakness and falls; brain imaging showed large subdural hematoma.</td>
<td>3</td>
<td>Transferred to a non-VA hospital</td>
<td>12h</td>
</tr>
<tr>
<td>4</td>
<td>55 y/o man with shortness of breath and lower extremity swelling.</td>
<td>2</td>
<td>Admitted to a telemetry unit</td>
<td>8h 13m</td>
</tr>
<tr>
<td>5</td>
<td>52 y/o man with schizophrenia and suicidal/homicidal ideation.</td>
<td>2</td>
<td>Transferred to a non-VA hospital</td>
<td>22h</td>
</tr>
</tbody>
</table>

* Emergency Severity Index  
** Emergency Department Length of Stay

**Issue 3: Diversion**

We found that executive leaders did not have a plan for diversion and did not articulate the impact of not having a plan on the input, throughput, and output of patients in the ED, nor on the ability of staff to provide ED services.

VHA Handbook defines “diversion” as a situation in which patients who would normally be treated by the facility cannot be accepted for admission due to any of the following reasons: the appropriate beds are not available, needed services cannot be provided, staffing is inadequate and acceptance of another patient would jeopardize the ability to properly care for those already at the facility, or disaster has disrupted normal operations. VHA requires each facility to have a diversion policy that includes clear indications on when to use diversion. A diversion policy must also include plans for supplemental staffing, equipment, supplies, and support services necessary to provide appropriate care delivered consistently and timely, 24 hours a day, 7 days a week.17

We found that when the facility was unable to provide a bed and/or the needed services, patients with acute medical conditions were transferred to the adjoining U of M hospital. However, the lack of a diversion policy and its required supplemental staffing plan contributed to delays in patient care and resulted in increased LOS.

**Issue 4: Lack of Specialized Beds**

We substantiated the allegation that there was a shortage of specialized beds.

The Joint Commission requires that hospitals plan for the safe and effective care of patients placed in overflow locations, including EDs.\(^\text{18}\) We found that the facility had a shortage of inpatient specialty beds to accommodate patients admitted for telemetry, behavioral health, and isolation.

The ED had 12 telemetry beds and one portable telemetry unit. We were informed that there were times when the demand for telemetry exceeded available ED telemetry monitors. Because of a high demand for telemetry beds in the ED, staff rotated patients off-and-on telemetry equipment as clinically indicated. In addition, we found that there were limited inpatient isolation rooms. The facility recognized the high demand for specialty services and their limited capacity to meet that demand. The facility had plans to increase the numbers of inpatient isolation rooms and telemetry beds and expand the ED.

Based on our review of records and interviews with staff, we found no evidence of direct patient harm caused by increased LOS due to lack of specialized beds. However, systemic patient flow problems increased patient vulnerability to adverse events.

**Issue 5: Patient Flow Committee**

We substantiated the allegation that the facility’s Patient Flow Committee had not met in several months.

The facility policy memorandum on patient flow requires that the committee meet monthly. We reviewed meeting minutes and interviewed committee members and found that the committee had met only once in the 5 months prior to our site visit.

Because patient flow is a system-wide issue involving throughput in various areas, committee membership should reflect representation from each of those areas. Our review of meeting minutes and interviews with staff members revealed that key positions, such as nurse managers from telemetry units, inpatient units, and the intensive care unit, were not invited to participate in committee meetings.

A Patient Flow Center was designed to coordinate activities of patient admissions and patient flow coordinators and opened in January 2013. In preparation, an ad hoc committee was organized to design and plan for the Center. We found that the ad hoc

\(^{18}\)Joint Commission Accreditation Guide for Hospitals 2012, Standard LD.04.03.11.
committee did not communicate its activities to front line staff, and therefore, severely limited the committee’s effectiveness in addressing patient flow issues.

**Issue 6: Communication**

The majority of staff described an ED work environment that was not conducive to quality patient care, effective teamwork, or excellent customer service. Although the ED had a knowledgeable, dedicated staff, lack of communication, high patient volume stressors, and the perceived absence of leader involvement impeded efforts to improve patient flow.

We found opportunities to improve communication on multiple levels among ED nursing staff and physicians, between ED clinical leadership and nursing staff, and between executive leaders and front line staff, such as ED nurses, providers, and patient flow staff.

The Fast-Track area within the ED facilitates care of ESI patients having acuity levels of 4 and 5. The goal of Fast-Track was to improve the ED flow of low-acuity patients and reduce their LOS. This was to be accomplished by dedicating staff to the area; however, according to the ED nurse manager and charge-nurses, they frequently could not provide a dedicated nurse for Fast-Track. Medical residents and providers staffed the area while a nurse, usually the charge-nurse, covered Fast-Track as workload permitted. We found that patients with ESI scores of 3 (not considered low-acuity) were placed in Fast-Track for observation and treatment even though the area had minimal staff and no monitoring capability. Consequently patients, including those with higher acuity (such as asthma patients), waited for medication and treatment until a nurse was available. Some providers insisted on seeing patients in Fast-Track even when they were informed that it was closed due to insufficient staffing.

In another example of poor communication, nursing staff were not involved in or aware of a decision that had been approved by the ED nurse manager for them to initiate admission assessments on patients boarded in the ED and document the assessments in the patient’s EHR.

We also identified problems with communication between ED staff and patients/families. Patient complaints about the ED usually involved wait times and poor communication from staff to patients/families. Patients reported that staff did not explain the reasons for the long delays. In some cases, patients waiting in the ED for a long time for an inpatient bed were told by ED staff that there were no available inpatient beds only to be told by the inpatient staff that the bed had been available all day.

VHA requires that staff trend, report, and distribute quarterly reports based on data from PATS and identify opportunities for system improvements based on quarterly complaint trending. We reviewed the PATS data for the ED and found 69 complaints specific to the ED during October 2011–September 2012. We found no evidence that ED managers had received, requested, tracked, or analyzed PATs data for opportunities to improve.
Conclusions

We substantiated that there were staffing shortages in the ED. Although providers had an existing “surge plan” to provide supplemental staffing for days when there was a high volume of patients, it was not utilized. ED nurse staffing was less than required staffing as outlined in the facility’s staffing plan. Further, there was no on-call plan for supplemental staff nurses.

We found that LOS for patients in the ED exceeded VHA’s standard. Although the facility used EDIS data routinely for decision making, the data did not accurately reflect actual ED LOS. The facility did not have a diversion policy, as required by VHA. We also substantiated that patients requiring telemetry were sometimes unmonitored. Although clinical judgment was used to rotate patients off and on telemetry, and while no adverse events had been reported, there was potential for an adverse event to occur.

The shortages of staffing and beds, along with an absence of a diversion policy, negatively impacted quality of care, including the ED staff’s ability to adequately handle and treat patients and manage LOS. We found that when ED census exceeded capacity other problems resulted. For example, an overflow of patients in the ED led to patients being examined in the triage area without visual or auditory privacy, and other quality of care concerns.

Challenges with teamwork and effective communication existed among leaders and staff in and outside the ED. The patient flow committee did not have leadership support; therefore, its membership, attendance, and effectiveness were questionable. The ED staff utilized coping mechanisms instead of problem solving and came to accept stress and frustration as the norm. Leadership, on all levels, did not effectively address the needs and concerns of the ED staff.

Recommendations

1. We recommended that the Facility Director develop action plans that address emergency department patient flow and length of stay, including specialty bed access.

2. We recommended that the Facility Director develop an emergency department staffing policy that includes a contingency plan for additional physician and nurse staffing when patient care demands exceed available staffing resources.

3. We recommended that the Facility Director ensure that data collection and the reporting process are strengthened.

4. We recommend that the Facility director ensure that a local diversion policy is developed and implemented.
5. We recommended that the Facility Director ensure that the patient flow committee meets regularly, membership is reviewed for appropriateness, and follow-up actions are monitored.
Inadequate Staffing and Poor Patient Flow in the Emergency Department, VA Maryland HCS, Baltimore, MD

Appendix A

VISN Director Comments

Department of Veterans Affairs

Memorandum

Date: August 2, 2013

From: Director, VA Capitol Health Care Network (10N5)

Subject: Healthcare Inspection – Inadequate Staffing and Poor Patient Flow in the Emergency Department, VA Maryland Health Care System (VAMHCS), Baltimore, MD

To: Director, Baltimore Office of Healthcare Inspections (54BA)

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

1. We appreciate the opportunity to review and provide comments to the draft report of the VA Office of Inspector General Healthcare Inspections’ review of the Emergency Department at the VA Maryland Health Care System (VAMHCS) Baltimore, Maryland on November 13-15, 2012. The findings and recommendations have been reviewed with senior leadership at the VISN and the VAMHCS.

2. We concur with the recommendations in this report. The VAMHCS staff has already begun to implement improvement actions.

3. If you have any questions, please contact my office at 410-691-1131.

Fernando O. Rivera, FACHE
Facility Director Comments

Department of Veterans Affairs

Memorandum

Date: July 26, 2013

From: Director, VA Maryland Health Care System, Baltimore, MD (512)

Subject: Healthcare Inspection – Inadequate Staffing and Poor Patient Flow in the Emergency Department, VA Maryland Health Care System, Baltimore, MD

To: Director, VA Capitol Health Care Network (10N5)

1. I appreciate the opportunity to review and provide comments to the draft report of the VA Office of Inspector General Healthcare Inspections’ review of the Emergency Department at the VA Maryland Health Care System (VAMHCS) Baltimore, Maryland on November 13-15, 2012. The findings and recommendations have been reviewed with senior leadership at the VAMHCS.

2. I concur with the recommendations in the report. The VAMHCS staff has already begun to implement improvement actions.

3. If you have any questions, please contact my office at 410-605-7016.

DENNIS H. SMITH
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 VISN Director ensure the Facility Director develop action plans that address emergency department patient flow and length of stay, including specialty bed access.

Concur

Target date for completion:
LOS and Specialized Beds: May 2013
Telemetry Beds: October 2013 (based on arrival of equipment)

Facility response:

Excessive ED LOS

The implementation of the Patient Flow Center, the addition of more Mental Health beds and an improved transfer process for Mental Health patients have all helped to reduce the ED average length of stay for patients who are admitted. Emergency Department Information System (EDIS) data shows that for patients admitted from the ED, there has been improvement with recent data reflecting between 11-12% of admitted patients having a stay > 6 hours. An assessment of the data for patients staying > 6 hours shows that the common reason for patients to remain in the ED is the need for active treatment for intoxication prior to a meaningful assessment for a mental health concern. Since January 2013, the average visit time for patients not admitted to the hospital has been between 3 and 4 hours. The rate of patients who “left without being seen” has also shown improvement with a monthly level below 1%, which compares favorably with previous levels of 4-5% monthly in the past and the national ED average of 2.7%.

The ED staff have collected data and studied a number of factors that may increase length of stay, including the time to complete imaging studies and lab work, delays with giving report, and inaccurate data from failure to remove patients from EDIS board in a timely manner. Based on EDIS data, a process improvement action was undertaken to give EDIS access to the VAMHCS Bed Coordinator who now changes the patient’s status to “admit” once she receives the admission white card. The improvement in data accuracy helps in the identification of true bottlenecks in the patient flow process. There are still challenges with the use of the EDIS program and the interpretation of its data. An updated version of EDIS is to be released this fall and it is hopeful that the revised version will improve ease of use, which will in turn improve the accuracy of data collected by the system.

Lack of Specialized Beds
The availability of some types of specialized beds has been limited at VAMHCS due to construction initiatives in Mental Health and the lack of an adequate number of Telemetry beds. The issue with the lack of Mental Health beds has been resolved with the completion of construction on the Baltimore acute mental health inpatient unit. There are now 18 beds on the 6A Mental Health acute care ward in Baltimore. A dedicated Mental Health transfer coordinator works with the VAMHCS Mental Health staff to help in the transition of patients who no longer need care on the locked inpatient ward at Baltimore to more appropriate levels of care within our system. With the completion of construction on the inpatient ward and the improvement in the intra-facility transfers within Mental Health, there has been an improvement in the availability of Mental Health beds, which reduces the length of stay for patients in the ED awaiting admission to Mental Health. On review of EDIS data, the most common reason for a patient who presents for Mental Health evaluation to have a >6 hour stay in the ED is for the treatment of acute ETOH intoxication which must be initiated so that an accurate Mental Health assessment can be performed to determine the most appropriate disposition for the patient.

The VAMHCS has recognized the need for additional inpatient telemetry beds. VAMHCS has obligated monies and placed an order to purchase telemetry monitors for all beds on the inpatient 3B Medicine ward. Funding for the telemetry equipment will increase the telemetry beds on 3B to 32 beds. Two additional Telemetry beds were opened in December 2012, increasing the beds from 12 to 14. Additionally, the ED will receive additional telemetry monitors to increase our capacity to 17 telemetry-monitored beds. In the interim, the ED has obtained an additional portable cardiac monitor to ensure that all patients who require cardiac monitoring while in the ED are placed on a telemetry monitor.

**Recommendation 2.** We recommended that the Facility Director develop an emergency department staffing policy that includes a contingency plan for additional physician and nurse staffing when patient care demands exceed available staffing resources.

Concur

Target date for completion: May 2013

Facility response:

**ED Physician Staffing**

ED patient volumes and hourly number of visits are monitored daily via the EDIS. The EDIS data is summarized and sent to ED and Executive Office staff for daily review at our morning report meeting. EDIS data is also presented at the monthly Emergency and Compensation & Pension Clinical Center (ECCC) meeting.
Current physician staff coverage of the ED is based on the EDIS projected number of patient visits per hour. Attending physician schedules have been altered to accommodate patient volumes as determined by EDIS data. One change in physician coverage implemented in February 2013 was a shift change from a 12 noon to 8 pm shift to a 2 pm to 10 pm shift. This change in physician coverage has helped improve patient flow in the evening shift and reduced patient volumes in the nighttime period.

A list of ‘on-call’ physicians who are available to work in the ED has been established and is used to address any surge in patients. Additional physician coverage has been in use since in December 2012. One-hundred and seventy additional physician hours of coverage have been used from January 2013 through June 2013. Surge capacity through on-call physician back-up coverage remains in place. Staff has been educated about the guidelines for the deployment of additional physician coverage.

The Physician Assistant (PA) work schedules are designed to meet expected patient volumes. There are currently three PAs who work staggered shifts (7:00 am – 3:00 pm; 8:30 am – 4:30 pm; 1:00 pm – 9:00 pm) to provide optimal coverage. All three of the PAs work during the peak patient volume time in the middle of the day.

**ED Nurse Staffing**

Nursing Service has authorized an increase in the number of nurse staff assigned to work in the ED. The addition of seven FTEE nurses (4 RN FTEE, 3 LPN FTEE) allows for an increase in PAR levels for all shifts. The 7:30 am to midnight PAR levels increased by two (1 RN, 1 LPN). The night shift PAR levels increased by one to four RNs; which accommodates the staffing needs in triage and for patient transport. The additional LPN staff is assigned to the non-acute area to ensure dedicated coverage during the normal operating hours of this area (Monday-Friday, 7:30 am to midnight). An RN for nursing practice issues supervises the LPNs who work in the non-acute area.

The addition of the LPNs to the non-acute area of the ED has allowed for the redistribution of existing RNs and Health Techs to the acute and triage areas of the ED as appropriate. The LPNs will improve communication between the physicians and nurses about the patient care needs of Veterans being evaluated in this area. The additional staff is expected to improve the flow of patients through a more timely completion of orders for nursing care, tests, treatments, etc. Additionally, an RN will be assigned to supervise the staff in the Fast Track area and through their assessment bring to the attention of the physicians patients who may require a higher level of care within the ED.

An ED specific nurse plan has been developed to provide surge nursing coverage. The surge plan has been presented to the NAGE Union and will be activated when needed. Managed Care policy 512-101/MC-010, *Staffing Guidelines*, dated March 2011, has been updated and is awaiting final concurrence for publication.
**Recommendation 3.** We recommended that the Facility Director ensure that data collection and the reporting process are strengthened.

Concur

Target date for completion: October 2013

Facility response:

The ED will establish a consistent method of collecting and aggregating data relevant to patient flow length of stay. The indicators will be collected from two areas at the current time, ED and Mental Health (acute care). The selection was based on monitoring extended stays in ED and one of the areas impacting patient flow in the ED at a significant level. The indicators selected serve as proxy indicators of the flow or impediment to patient flow. The indicators will be tracked and trended. Additional indicators will be added as needed.

The information will be reported through the existing VAMHCS committee structures from Emergency Care and Compensation/Pension Clinical Center Improvement Committee and/or Mental Health PI SubCouncil to Executive Performance Improvement Council (EPIC) and/or Executive Committee of Medical Staff (ECMS) to Executive Committee of Governing Body (ECGB). The Facility Director is a member of EPIC and ECMS and the chairperson of ECGB and thus would be apprised in various venues. The report format will be provided to the ED and MH to standardize reporting.

The report will be presented in the aforementioned venues in September/October 2013. The reporting will then be continued in the information structure described. This will strengthen the process of data collection and reporting until the issue resolution is sustained.

**Recommendation 4.** We recommend that the Facility director ensure that a local diversion policy is developed and implemented.

Concur

Target date for completion: February 2013

Facility response:

A diversion policy was written to identify those situations when a patient cannot be treated due to the lack of an appropriate bed, need for specialized services not available at VAMHCS, inadequate staffing, acceptance of another patient would jeopardize the care of current patients or when a disaster disrupts normal operations. The diversion policy also addresses the need for supplemental staffing, equipment, supplies, and ancillary services to provide appropriate medical care for patients in the ED. VAMHCS Policy 512-11/COS-126 which was published to the VAMHCS website in February 2013.
Since December 2012, there have been 24 transfers from the Baltimore ED to other non-VA facilities based on diversion guidelines, such as the need for specialized services not available at the Baltimore VA Medical Center or lack of available beds during the renovation of Mental Health inpatient ward. These transfers ensured timely care to Veterans and helped to reduce the number of patients who stayed for extended periods in the Baltimore ED. Additionally, a Rapid Process Improvement Workshop (RPIW) on intra/inter-facility transfers was performed to improve the transfer process.

**Recommendation 5.** We recommended that the Facility Director ensure that the patient flow committee meets regularly, membership is reviewed for appropriateness, and follow-up actions are monitored.

Concur

Target date for completion: May 2013

Facility response:

The VAMHCS Flow Committee has been actively involved in the improvement in patient flow in the Baltimore ED. ED staff have been educated about the role of the Flow Committee and the Patient Flow staff assigned to facilitate patient flow from the ED. A meeting schedule for the Flow Committee was published in December 2012 and regular meetings have been held. The Flow Committee membership has been reviewed and an interdisciplinary team membership created as well. Dedicated Patient Flow Program staff was hired to work in the ED to facilitate patient flow from the ED to inpatient wards.
## OIG Contact and Staff Acknowledgments

<table>
<thead>
<tr>
<th>Contact</th>
<th>For more information about this report, please contact the OIG at (202) 461-4720.</th>
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<tbody>
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<td>Nathan Fong, CPA</td>
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<td>Jerome Herbers, MD</td>
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<td>Nelson Miranda, LCSW</td>
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<td>Melanie Oppat, MEd, LDN</td>
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