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Healthcare Inspection

Patient Flow, Quality of Care, and Administrative Concerns in the Emergency Department VA Maryland Health Care System Baltimore, Maryland

August 23, 2017

Washington, DC 20420

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Table of Contents

	Page
Executive Summary	i
Purpose	1
Background	1
Scope and Methodology	9
Inspection Results	11
Issue 1. Inpatient Admission Delays for Emergency Department Patients	11
Issue 2. The Center and Committee Actions.	16
Issue 3. Resident Admission Capping Rules Impact Patient Flow	18
Issue 4. Unmonitored Acutely Ill Emergency Department Patients.....	20
Issue 5. Emergency Department Care Delays	20
Issue 6. Nursing Handoff Delays.....	20
Issue 7. Emergency Department Modifications	21
Issue 8. Inadequate Emergency Department Administrative Support.....	22
Issue 9. Computerized Tomography Delays	22
Conclusions	22
Recommendations	23
Appendixes	
A. Veterans Integrated Service Network Director Comments	25
B. System Director Comments.....	28
C. Office of Inspector General Contact and Staff Acknowledgments.....	33
D. Report Distribution.....	34

Executive Summary

The VA Office of Inspector General (OIG) conducted a healthcare inspection in response to complaints received in 2015 about the Emergency Department (ED) at the Baltimore VA Medical Center (facility), part of the VA Maryland Health Care System (system). A complainant alleged that facility administrators were not addressing problems identified in the OIG report *Inadequate Staffing and Poor Patient Flow in the Emergency Department, VA Maryland Health Care System, Baltimore, Maryland*, (Report No. 12-03887-319, September 18, 2013).

We found system leaders did not ensure sufficient actions in response to the following 2013 OIG report recommendations that the Facility Director:

- Develop action plans that address ED patient flow and length of stay (LOS), including specialty bed access.
- Ensure that the Patient Flow Committee meets regularly, membership is reviewed for appropriateness, and follow-up actions are monitored.
- Ensure that data collection and the reporting process are strengthened.

The complainant alleged that despite improvements made following the 2013 report recommendations, such as increased nurse staffing levels in the Urgent Care Center and a new Flow Center, the problems remain. The complainant specifically alleged:

- “Because of a lack of ‘telemetry’ and Methicillin-resistant *Staphylococcus aureus* (MRSA) ‘isolation beds’ in the hospital, patients now stay in the ED for many hours (sometimes over 24 hours), waiting for a bed” and additional intensive care unit rooms are needed.”
- The “...new ‘Flow Center’ has done little or nothing to alleviate the [patient flow] problem.”
- “Patients often have to stay in the ED for extra hours, often overnight, because the Department of Medicine teams have ‘capping’ rules that limit the number of patients who can be admitted to a given team.”
- “...almost every day, patients with chest pain or shortness of breath are placed in chairs in the hallway, waiting for a bed. They [patients] are not on monitors, and the nurses [who are assigned to geographical areas of the ED] do not attend to them.”
- On a day in 2015, “because all ED beds were full, new patients presenting with complaints such as chest pain and severe anemia were placed in chairs to wait for an hour or more before they could be placed in a bed to be examined and fully evaluated.”
- “Nurses on the inpatient wards frequently refuse to take report for ED patients due to ‘change of shift,’ ‘meal breaks,’ etc., causing significant delays (often many hours) in moving patients from the ED to the inpatient units.” There is a need for “better support from nursing administration.”

- The plan for a new ED “...actually has fewer patient beds, although our daily volumes have continued to increase.”
- ED staff does not have 24-hour administrative support.

During our May 29, 2015 site visit, staff told us that a delay in patients receiving after-hours imaging services, specifically computerized tomography¹ services, contributed to the extended LOS for some ED patients.

We found system leaders² did not ensure sufficient actions in response to the 2013 OIG report recommendations regarding patient flow, specialty bed access, Emergency Department Integration Software (EDIS) data collection and monitoring processes, ED LOS, and the Patient Flow Committee’s monitoring of follow-up actions. We found that the actions implemented did not drive sufficient change.

We substantiated that patients remained in the ED for extended hours (more than 4 hours) while waiting for an inpatient bed. We found that the median ED LOS for admitted patients, the delay in inpatient admission, and the percentage of patients boarded exceeded Veterans Health Administration (VHA) established targets and thresholds during the period October 2013–December 2016. We also found that the accuracy of the ED metrics could be compromised when a provider was unable to enter data timely and/or encountered challenges using EDIS. We found that system policy did not include the maximum number of ED boarders³ as required by VHA.

We found that the delays in admission to an inpatient bed were due to patient flow coordination factors including relocation of patients to accommodate clinical needs, limited operational telemetry beds, and delayed bed cleaning processes. We found that facility staff failed to consistently utilize the Bed Management Solution software as required by system policy. We also found that Environmental Management Services staff schedules and cleaning processes were inadequate to support the patient flow process. We found that Patient Flow Committee members did not take adequate action to improve patient flow.

We substantiated that the system’s capping practice for medical residents may limit the number of patients the admitting teams can treat; however, VHA requires admission capping limits coincide with Accreditation Council for Graduate Medical Education rules to maintain the integrity of patient care and the residency program. We found that facility managers had not established alternative processes to address the patient flow

¹ “A computerized tomography (CT) scan combines a series of X-ray images taken from different angles and uses computer processing to create cross-sectional images, or slices, of the bones, blood vessels, and soft tissues inside your body. CT scan images provide more detailed information than plain X-rays do.” <http://www.mayoclinic.org/tests-procedures/ct-scan/basics/definition/prc-20014610>. Accessed October 27, 2016.

² The system Director retired January 2, 2015. The system Chief Of Staff was appointed Director, effective August 23, 2015. <https://www.maryland.va.gov/about/leadership.asp>. Accessed October 27, 2016.

³ VAMHCS Policy Memorandum 512-11COS-136. As of May 2014, a system patient is considered a “boarder” when an ED physician decides to admit a patient and the patient remains in the ED for more than 4 hours after the decision to admit is made.

problems related to capping limits. We also found that the requirement that medical residents/interns routinely retrieve patient medication and provide discharge instructions may contribute to delays in an inpatient's discharge.

During our three unannounced site visits, we did not observe patients waiting in chairs in the hallway, therefore we could not substantiate the allegation that patients with chest pain or shortness of breath sat in hallways unmonitored. We substantiated that on one day in 2015, the ED was overcrowded and patients waited extended times to be seen by a physician and/or admitted to an inpatient unit. However, we found no reports of complaints or adverse patient events as a result of the admission delays and boarding practices.

We substantiated that nurses on inpatient medicine units were sometimes off the unit and unavailable to receive the handoff report from ED nurses, contributing to delays in admissions from the ED. We also found poor communication between ED and inpatient nurses, as well as between inpatient nurses, that impeded the inpatient flow processes.

We substantiated that the ED/Urgent Care Center modification plans included one less ED bed than is currently available but also included a new four-bed behavioral health treatment area. We did not substantiate that daily patient volumes have continued to increase and found a decrease in the number of patient visits from fiscal years 2014 through 2016.

We also substantiated that the ED administrative support staffing level was not compliant with the VHA requirement to provide adequate support. Further, we found that the lack of timely after-hours in-house coverage of computerized tomography scan services contributed to the extended LOS for some ED patients.

We recommended that the Veterans Integrated Service Network Director ensure that system managers:

- Strengthen patient flow processes
- Evaluate staff's EDIS data entry and implement action plans to ensure data accuracy and timeliness
- Strengthen Patient Flow Committee processes to include the establishment of patient flow goals, action target dates, and oversight of action implementation

We recommended that the System Director ensure that:

- The policy regarding patients boarding in the ED include all required elements
- Strengthen Bed Management Solution utilization and processes, and monitor compliance
- Strengthen processes to improve timeliness of bed cleaning

- Review the impact of inpatient medicine admission capping and establish alternative plans that improve patient flow from the ED, monitor outcomes, and implement alternative plans as warranted
- Review and address processes that contribute to delays in inpatient discharge
- Strengthen nursing service communication processes to ensure consistent inpatient care coverage and nurses' availability for ED handoff
- Evaluate the adequacy of ED administrative support staffing and take appropriate action
- Improve and monitor compliance with response time requirements for after-hour computerized tomography scan services.

Comments

The Veterans Integrated Service Network and System Directors concurred with our recommendations and provided an acceptable action plan. (See Appendixes A and B, pages 25–32 for the Directors' comments.) Based on information provided by the Veterans Integrated Service Network and System, we consider Recommendations 4 and 10 closed. We will follow up on the planned actions for the remaining recommendations until they are completed.



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Purpose

The VA Office of Inspector General (OIG) conducted a healthcare inspection in response to complaints received in 2015 regarding patient flow and other practices in the Emergency Department (ED) of the Baltimore VA Medical Center (facility), part of the VA Maryland Health Care System (system), located in Baltimore, MD.

Background

The system, part of Veterans Integrated Service Network (VISN) 5, consists of the facility, Perry Point VA Medical Center, the Loch Raven VA Community Living and Rehabilitation Center, and six community based outpatient clinics. The system has 667 total operating beds and provides a range of services, including medical, surgical, specialty, and outpatient services; and it is affiliated with the University of Maryland School of Medicine, the University of Maryland Medical Center, and Johns Hopkins University.

The facility had 138 authorized inpatient beds including 83 internal medicine beds, 22 intermediate beds⁴ and 33 surgery beds. These medicine and surgery beds include a 10-bed Medical intensive care unit (ICU), a 7-bed Cardiac ICU, and a 10-bed Surgical ICU (collectively referred to by facility staff as ICU beds).

ED

The system's sole ED is located at the facility and is an 11-bed unit for patients requiring attention for urgent or life-threatening problems.⁵ The ED is a 24-hour/7-day per week emergency service staffed by physicians, physician assistants, nurse practitioners, registered nurses (RNs), and support staff.⁶ The ED physicians, including the Medical Director of Emergency Medicine, are contracted through the University of Maryland Medical System. As such, the ED physicians are not Veterans Health Administration (VHA) employees but rather University of Maryland employees who also serve on the faculty at the University of Maryland School of Medicine.

Adjacent to the ED is a 10-bed Urgent Care Clinic (UCC) which provides medical care for patients without a scheduled appointment who are more stable than ED patients and in need of immediate attention for an acute medical or mental health illness, or minor injuries.⁷ The UCC is open for patient care each weekday from 7:30 a.m. to 6:30 p.m. In June 2015, ED staff reported that approximately 90–100 patients visit the ED per

⁴ VHA Directive 1117, *Utilization Management Program*, July 9, 2014.

⁵ VAMHCS Policy Memorandum 512-11/ECCC-002, *Emergency Medical Care*, May 2012.

⁶ Ibid.

⁷ VHA Directive 1051, *Standards for Nomenclature and Operations in VHA Facility Emergency Departments*, February 14, 2014. This directive was rescinded and replaced by VHA Directive 1101.05(2), *Emergency Medicine*, September 2, 2016 (amended March 7, 2017). Both directives have the same or similar language regarding the ED and UCC.

weekday and an additional 20–30 patients visit the UCC. From October 2013 through November 2015, the ED/UCC treated an average of 83 patients per day.⁸

ED Processes

Upon a patient's arrival to the ED, a "Quick Look" RN determines if the patient is in immediate need of medical emergency care for conditions such as chest pain, respiratory distress, seizure, or suicidal or homicidal thoughts. In these cases, an ED provider will see the patient immediately. A Medical Administration Service staff member (administrative support) registers all other patients and then a triage clinician (RN, Nurse Practitioner, or Physician Assistant) assesses the patient's symptoms and prioritizes the medical care needed using an Emergency Severity Index scale from level 1 (highest priority) to level 5 (lowest priority).⁹ While levels 1–3 patients are evaluated by an ED provider, levels 4–5 patients may be referred to UCC or Primary Care.¹⁰ For all patients, the ED physician determines whether the patient should be discharged home, transferred to an outside facility, or admitted to an inpatient unit. When immediate inpatient beds are not available for ED patients awaiting admission to an inpatient unit, VHA advises the use of virtual beds¹¹ in the ED to ensure patients receive medications, food service, and other support services.¹²

Patient Flow Center

To admit a patient to an inpatient unit, the ED physician contacts the on-call Department of Medicine admission team and initiates a process¹³ which alerts a Flow Coordinator in the Patient Flow Center (Center) of the need for an inpatient bed. The Center, established in 2012, ensures that patients are assigned to a level of care consistent with the admitting physician's orders.¹⁴ The Center is staffed by a Chief and two full-time Flow Coordinators who are RNs and administrative staff. The Center's staff members provide bed coordination, patient transfer, and inpatient case management.

⁸ EDIS data for ED and UCC combined; reported from October 1, 2013 through November 19, 2015.

⁹ Agency for Healthcare Research and Quality. Emergency Severity Index (ESI): A triage tool for emergency departments. Version 4. <http://www.ahrq.gov/professionals/systems/hospital/esi/esipref.html>, October 2014. Accessed September 10, 2015.

¹⁰ VAMHCS Policy Memorandum 512-11/ECCC-002.

¹¹ An admitted patient awaiting admission to a particular inpatient unit is administratively assigned a temporary bed location (referred to as a virtual bed) allowing the patient to receive services. The patient may actually be in any hospital location under the supervision of medical personnel.

¹² VHA Directive 1009, *Standards for Addressing the Needs of Patients Held in Temporary Bed Locations*, August 28, 2013. This directive was rescinded and replaced by VHA Directive 1101.05(2), *Emergency Medicine*, September 2, 2016 (amended March 7, 2017). Both directives have the same or similar language regarding temporary bed locations.

¹³ The ED staff faxes a document called a "white card" to the Patient Flow Coordinators when the ED physician requests an inpatient admission. Upon receipt of the white card, the Flow Coordinators locate an available and appropriate bed.

¹⁴ VHA Directive 2010-021, *Utilization Management Program*, May 14, 2010. This directive was rescinded and replaced by VHA Directive 1117, *Utilization Management Program*, July 9, 2014. Both directives have the same or similar language regarding utilization management.

Patient Flow Committee

The Patient Flow Committee (Committee) is an interdisciplinary collaboration between representatives from leadership, clinical services, and administrative support staff. The Committee is charged with improving patient flow through system redesign projects and performance improvement methodologies.¹⁵ System policy requires the Committee to meet monthly; establish a reporting mechanism for subcommittees and departments; establish patient flow benchmarks and coordinate monitoring; implement a quarterly reporting system; guide patient flow initiatives; provide oversight, assistance, and feedback to specialty subcommittees; and serve as a resource for patient flow.¹⁶

Bed Management Solution

Since 2013, the facility has used the VHA Bed Management Solution (BMS), an electronic tool that tracks bed availability.^{17,18} Administrative and clinical staff record activities related to the management of beds, including cleaning and occupancy in BMS.¹⁹ BMS includes an Environmental Management Services (EMS) module that notifies EMS staff when a bed requires cleaning, tracks cleaning process metrics including the duration of time for staff to clean a bed, and tracks when a bed is cleaned and available for occupancy.

ED Metrics

VHA requires that ED staff use ED Integration Software (EDIS), a data collection tool used to track patient flow and other ED quality metrics.²⁰ The ED staff (clinical and administrative support employees) enter patient flow metrics (such as patient registration times, triage time, and discharge time) into EDIS.²¹

¹⁵ VAMHCS Policy Memorandum 512-11COS-001, *Patient Flow Committee*, March 2010 was rescinded and replaced by VAMHCS Policy Memorandum 512-11COS-001, *Patient Flow Committee*, April 2014. The 2014 update clarifies Patient Flow Committee membership and responsibilities, further integrates the System Redesign Team/Committee into patient flow, and requires the Patient Flow Committee to “set patient flow goals to enhance the flow process throughout the organization.”

¹⁶ Ibid.

¹⁷ The VHA Office of Systems Redesign & Improvement is the business owner for the BMS tool. BMS “provides a central communications hub for coordinating requests for beds with information about the current status of bed availability and use. Facility staff refer to this system as the “Bed Management System” and “Bed Tracker.”

¹⁸ VAMHCS Policy Memorandum 512-11COS-136, *Boarder Patient*, May 2014.

¹⁹ This report uses the term “bed” to be consistent with facility nomenclature when referring to an inpatient room. In this context, a “clean bed” means the entire room is clean.

²⁰ VHA Directive 2011-029, *Emergency Department Integration Software (EDIS) for Tracking Patient Activity in VHA Emergency Departments and Urgent Care Clinics*, July 15, 2011. This directive was rescinded and replaced by VHA Directive 1101.05(2), *Emergency Medicine*, September 2, 2016 (amended March 7, 2017). Both directives have the same or similar language regarding EDIS.

²¹ VA EDIS, *User Guide*, July 2013 (Revised November 2014). The EDIS tool was implemented in 2012.

This metric information automatically transmits to the VA Corporate Data Warehouse and is presented in the VHA Emergency Medicine Management Tool (EMMT).²²

The EMMT dashboard captures and displays metrics including:²³

- Operation Summary (number of patients, number of ED beds, and staffing metrics).²⁴
- Length of stay (LOS) (total patient, discharged patient, admitted patient, and ED observation status patient).²⁵
- Patient Flow (door to triage, door to doctor, and admission delay).²⁶
- Service Quality as reflected by percentage of patients who leave without being seen (LWOBS); are boarded greater than (>) 4 hours;²⁷ and/or return to the ED/UCC within 72 hours.²⁸

The patient's ED registration is the primary EDIS entry that initiates an LOS metric. As the patient is treated in the ED, appropriate staff record each step in EDIS, for example, the triage RN records triage time and the physician records the time of decision to admit or discharge a patient. If a patient LWOBS, this information is tracked through ED data collection.

VHA leaders established Emergency Management targets that are adjusted at the start of each fiscal year (FY).²⁹ EMMT also displays a dashboard for a comparison of facility level operations with national targets for 13 performance measures. The FY 2014 EMMT included the metric "Delayed % > 4 Hr (Percent of Patient Delays greater than 4 Hours)" that measured the time a patient remained in the ED after a decision to admit.

²² VHA EMMT *User Manual, Version 2.1*, March 9, 2015. EMMT derives data from EDIS and is a performance analysis and reporting tool to track patients, delivery of care, and productivity measures in the ED/UCC. ED Users (clinical and clerical) enter data at the local facility level and the data are collected and displayed in EMMT dashboards.

²³ VHA EMMT, *User Manual, Version 2.1*.

²⁴ Ibid.

²⁵ VHA Handbook 1101-05, *Emergency Medicine Handbook*, May 12, 2012. "Observation status describes a patient who presents with a medical condition showing a significant degree of instability or disability, and who needs to be monitored, evaluated, and assessed for either admission to inpatient status or assignment to care in another setting." This metric is separate from "boarding" as there has been no decision to admit to inpatient status while in observation status. VHA Handbook 1101-05 was rescinded and replaced by VHA Directive 1101.05(2), *Emergency Medicine*, September 2, 2016 (amended March 7, 2017). Both directives have the same or similar language regarding observation status patients.

²⁶ VHA EMMT, *User Manual, Version 2.1*. Patient Flow metrics "provide the ability to analyze processes focusing on key events associated with typical visits."

²⁷ VAMHCS Policy Memorandum 512-11COS-136. As of May 2014, a system patient is considered a "boarder" when an ED physician decides to admit a patient and the patient remains in the ED for more than 4 hours after the decision to admit is made.

²⁸ VHA EMMT, *User Manual, Version 2.1*. "Two new metrics have been added to the existing 'Left without Being Seen' metric to highlight service quality issues indicated by lengthy boarding times and ED revisits."

²⁹ VHA EMMT, *User Manual, Version 2.1*. *Targets* are national goals/performance metrics established at the start of the fiscal year; *thresholds* are minimum performance standards also established at the start of the fiscal year.

However, VHA did not establish targets related to this measure. In FY 2015, VHA renamed this metric “% Boarded > 4hrs” and established a performance target.³⁰

The Joint Commission (JC) requires facilities to recognize that management of the ED throughput is a hospital-wide concern, and to implement system-wide processes that support patient flow elements including admission, assessment and treatment, patient transfer, and discharge.³¹ As part of the inpatient admission process, VHA requires a handoff^{32,33} of care and admitting orders from the admitting ED or UCC physician to the inpatient physician. System policy requires the ED physician to document the time of decision to admit and the admitting physician to evaluate the patient and write admission orders. System policy also requires the Flow Coordinator to assign a clean bed, and the ED RN to document handoff to the inpatient RN.³⁴ The responsibility for patient care remains with the ED/UCC staff until handoffs occur and admission orders are written.³⁵

The ED physician triggers the “% Boarded > 4hrs” metric when he/she documents the time of the decision to admit³⁶ in EDIS. In May 2014, the system initiated a policy that defined a “boarder” as a patient who remains in the ED for more than 4 hours after an ED physician decided to admit the patient.³⁷ Patients who are awaiting or receiving treatment, or in observation status in the ED are not considered boarders.³⁸ Given that EDs are not staffed to manage seriously ill patients for extended periods of time,³⁹ JC requires that facilities set goals for boarding times and recommends that patients not be held in the ED for more than 4 hours after a decision to admit is made.^{40,41}

³⁰ VHA EMMT, *Version 1.0*, February 2014, and VHA EMMT, *User Manual, Version 2.1*. The established target for percent boarded > 4 hours is 10 percent of ED patients for whom the physician had made a decision to admit.

³¹ JC (2013). The "Patient Flow Standard" and the 4-Hour Recommendation.

<https://www.jointcommission.org/assets/1/18/S1-JCP-06-13.pdf>. Accessed November 22, 2016.

³² Friesen, M. A., White, S. & Byers, J. (2008). *Handoffs: Implications for nurses. In patient safety and quality: An evidence-based handbook for nurses*. Editor: Ronda G Hughes, PhD, MHS, RN. Rockville (MD): Agency for Healthcare Research and Quality (US). Publication No.: 08-0043. Handoff is the exchange of essential information and the responsibility for care of the patient between healthcare providers.

<http://www.ncbi.nlm.nih.gov/books/NBK2649/>. Accessed October 20, 2015.

³³ VHA Directive 1009.

³⁴ VAMHCS SOP 118-005, *Handoff (ISBARQ)*, March 2014.

³⁵ VHA Directive 1009.

³⁶ American College of Emergency Physicians (ACEP), *Task force report on boarding, emergency department crowding: High impact solution*, <http://www.acep.org/workarea/DownloadAsset.aspx?id=80662>. Accessed December 10, 2015.

³⁷ VAMHCS Policy Memorandum 512-11COS-136.

³⁸ VHA Directive 1051.

³⁹ Ibid.

⁴⁰ JC, R3 Report, *Patient flow through the Emergency Department*. Issue 4, December 19, 2012. Standards LD.04.03.11, EP 5, “The hospital measures and sets goals for mitigating and managing the boarding of patients who come through the emergency department.” This element did not affect accreditation status until January 1, 2014.

⁴¹ JC, *The “Patient Flow Standard” and the 4-Hour recommendation*, June 2013; p. 2, This four-hour standard for boarding patients is a recommendation, as JC recognizes that “meeting such a time frame is not, in some cases, within the control of the accredited organization.”

The American College of Emergency Physicians maintains that boarding of admitted patients in the ED contributes negatively to patient safety, quality of care, and patient satisfaction.^{42,43} Typically, boarding occurs due to the unavailability of an inpatient bed for the admitted patient.⁴⁴ The lack of available inpatient beds may be caused by a number of factors including a lack of clean inpatient beds, residents' admission limits, staffing issues, and/or late discharges by residents/interns.⁴⁵ The two primary reasons for admission delays to inpatient units are high patient acuity (requiring critical care) and unavailability of inpatient beds due to lack of nursing staff and specialized critical care.⁴⁶ VHA recognizes that ED overcrowding results from boarding patients when an inpatient bed is not available due to an inadequate flow of patients through the facility as a whole.⁴⁷ Overcrowded EDs may also result from increased use of the ED without commensurate growth of infrastructure.⁴⁸

As required by VHA, the system has a policy outlining processes to transfer patients to other medical facilities when beds are not available.^{49,50} To facilitate patient flow, VHA requires each facility to designate a "Bed Flow Coordinator"⁵¹ to coordinate inpatient admissions and bed assignments, and to ensure that patients who are in temporary bed locations, including boarders, are given priority for inpatient beds.⁵²

⁴² American College of Emergency Physicians. (2011). *Boarding of admitted and intensive care patients in the emergency department, approved April 2011*. <http://www.acep.org/content.aspx?id=29132>. Accessed November 23, 2015.

⁴³ American College of Emergency Physicians. (2011). *Definition of boarded patient*. <https://www.acep.org/content.aspx?id=75791>. Accessed April 6, 2016. "ACEP believes a "boarded patient" is defined as a patient who remains in the emergency department after the patient has been admitted to the facility, but has not been transferred to an inpatient unit."

⁴⁴ VHA Directive 1051.

⁴⁵ VHA Handbook 1400.01, *Resident Supervision*, December 19, 2012. Resident refers to an individual who is engaged in an accredited graduate training program for physicians, dentists, optometrists, and podiatrists, and who participates in patient care under the direction of supervising practitioners. Residents in their first post-graduate year of training are sometimes referred to as interns.

⁴⁶ [Cowan, RM, Trzeciak, S. Clinical review: Emergency department overcrowding and the potential impact on the critically ill. *Critical Care*. 2005; 9:291-295 \(DOI 10.1186/cc2981\). See p. 292 discussing overcrowding: many factors do not originate in the ED.](#)

⁴⁷ VHA Directive 1009.

⁴⁸ Ward, MJ, Collins, SP, Pines, J, Dill, C, Tyndall, G, & Kessler, C.S. (2015). Emergency medicine in the Veterans Health Administration—results from a nationwide survey. *American Journal of Emergency Medicine*, 33, 899-903. Ward, et al. note that while the size of VHA EDs has remained static, the number of ED visits has risen, potentially impacting operational metrics.

⁴⁹ VHA Directive 1051.

⁵⁰ VAMHCS Policy Memorandum 512-11/ECCC-002.

⁵¹ Facility staff also refer to the Bed Flow Coordinator as the "Patient Flow Coordinator."

⁵² VHA Directive 1009.

Inpatient Admission “Capping”

Another process that can impact patient flow is admission “capping” by inpatient medicine teams.⁵³ VHA adheres to the institutional requirements of accreditation bodies such as the Accreditation Council for Graduate Medical Education (ACGME), to ensure the “provision of excellent patient care and for the provision of excellent education and training for future health care professionals.”⁵⁴ The system is a teaching hospital and affiliated with the University of Maryland School of Medicine and the University of Maryland Medical Center. The three entities cooperate, by written agreement, to run an Internal Medicine Residency program consistent with ACGME. The agreement sets forth responsibilities for supervision and management as well as scope of practice for internal medicine residents based on their post-graduate year⁵⁵ and includes standards for patient admission limits, or “capping,” for residents.⁵⁶ Residents are also required to participate in a combination of clinical and didactic opportunities, including monthly rotations, through clinical settings and workday educational conferences and rounds.⁵⁷

At the time of our onsite review in May 2015, four medicine inpatient teams at the facility provided patient care and accepted admissions on a rotating basis. The team schedules complied with ACGME resident work-hour requirements. Each team was composed of an attending physician,⁵⁸ a resident, two interns, and occasionally medical students. Each team cared for a maximum of 20 patients at one time.

Allegations

In March 2015, a complainant reported to OIG that system leaders did not address problems identified in the 2013 OIG report, *Inadequate Staffing and Poor Patient Flow in the Emergency Department VA Maryland Health Care System, Baltimore, Maryland*,

⁵³ *Capping* defines how many admissions an internal medicine resident may accept over a specified time period. Caps are the maximum patient census (unit based admissions) established to set the clinical resident’s workload. See Thanarajasingham, U., et al. Service census caps and unit-based admissions: Resident workload, conference attendance, duty hour compliance, and patient safety. *Mayo Clin Proc.* 2012 Apr; 87(4): 320–327. doi: 10.1016/j.mayocp.2011.12.012PMCID: PMC3538463.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3538463/>. Accessed October 26, 2015.

⁵⁴ VHA Handbook 1400.01.

⁵⁵ Post Graduate Year (PGY) refers to residency year, PGY1, PGY2, or PGY3. Certain skills and competencies are required for each year.

⁵⁶ *ACGME program requirements for graduate medical education in internal medicine, 2013*, http://www.acgme.org/portals/0/pfassets/programrequirements/140_internal_medicine_2016.pdf. Accessed November 23, 2016.

⁵⁷ Ibid.

⁵⁸ The system bylaws defines attending physician as “...an individual with an Doctor of Medicine (M.D.), Bachelor of Medicine/Bachelor of Surgery (M.B.B.S.), or Doctor of Osteopathy (D.O.) degree, who by virtue of education, training, and demonstrated competence, is granted clinical privileges by the VAMHCS [VA Maryland Health Care System] to authorize the admission of Veterans and to perform specific diagnostic or therapeutic procedures and has been designated as having responsibility for the care of Veterans.” *VA Maryland Health Care System: Bylaws and rules of the medical staff of Veterans Affairs (VA), 2015-2018*.

(Report No. 12-03887-319, published September 18, 2013).⁵⁹ In the report, we substantiated that a lack of specialty beds, staffing shortages, and inadequate system policies contributed to patients' extended LOS in the ED and that patients were boarded⁶⁰ in the ED for more than 4 hours following a decision to admit those patients.^{61,62}

The 2013 report included recommendations that the Facility Director:

- Develop action plans that address ED patient flow and LOS, including specialty bed access.
- Ensure that the Patient Flow Committee meets regularly, membership is reviewed for appropriateness, and follow-up actions are monitored.
- Ensure that data collection and the reporting process are strengthened.⁶³

The complainant alleged that despite improvements made following the 2013 report recommendations, such as increased nurse staffing levels in the UCC and a new Flow Center,⁶⁴ the problems remained. The complainant specifically alleged:

- “Because of a lack of ‘telemetry’⁶⁵ and Methicillin-resistant *Staphylococcus aureus* (MRSA)⁶⁶ ‘isolation beds’⁶⁷ in the hospital, patients now stay in the ED for many hours (sometimes over 24 hours), waiting for a bed” and additional ICU rooms are needed.
- The “...new ‘Flow Center’ has done little or nothing to alleviate the [patient flow] problem.”
- “Patients often have to stay in the ED for extra hours, often overnight, because the Department of Medicine teams have ‘capping’ rules that limit the number of patients who can be admitted to a given team.”

⁵⁹ VAOIG, *Inadequate Staffing and Poor Patient Flow in the Emergency Department, VA Maryland Health Care System, Baltimore, Maryland*, Report No. 12-03887-319, September 18, 2013.

⁶⁰ VHA Directive 1051.

⁶¹ VAOIG Report No. 12-03887-319.

⁶² *Joint Commission Perspectives*®, June 2013, Volume 33, Issue 6, Copyright 2013, The Joint Commission. <http://www.jointcommission.org/assets/1/18/S1-JCP-06-13.pdf>. Accessed November 22, 2016.

⁶³ VAOIG Report No. 12-03887-319.

⁶⁴ The “Flow Center” is the Patient Flow Center, an entity within the facility Quality, Safety and Improvement Office. The Flow Center is staffed by a team of patient flow coordinators and administrative staff and is responsible for locating available and appropriate beds for patients, including those being admitted from the ED.

⁶⁵ Telemetry is the use of monitors for the electronic transmission of data between distant points, such as the transmission of cardiac monitoring data. <http://medical-dictionary.thefreedictionary.com/telemetry>. Accessed September 16, 2015.

⁶⁶ MRSA is an infection caused by a type of staph bacteria that became resistant to many of the antibiotics used to treat ordinary staph infections. Mayo Clinic website. <http://www.mayoclinic.org/diseases-conditions/mrsa/basics/definition/con-20024479> Accessed September 16, 2015.

⁶⁷ An isolation bed is used to segregate infected patients to reduce airborne spread to and from patients, and facilitates nursing care. <http://virology-online.com/general/InfectionControl5.htm>. Accessed December 14, 2015.

- “...almost every day, patients with chest pain or shortness of breath are placed in chairs in the hallway, waiting for a bed. They [patients] are not on monitors, and the nurses (who are assigned to geographical areas of the ED) do not attend to them.”
- On a day in 2015, “because all ED beds were full, new patients presenting with complaints such as chest pain and severe anemia were placed in chairs to wait for an hour or more before they could be placed in a bed to be examined and fully evaluated.”
- “Nurses on the inpatient wards frequently refuse to take report⁶⁸ for ED patients due to ‘change of shift,’ ‘meal breaks,’ etc., causing significant delays (often many hours) in moving patients from the ED to the inpatient units.” There is a need for “better support from nursing administration.”
- The plans for a new ED “...actually has [have] fewer patient beds, although our daily volumes have continued to increase.”
- ED staff does not have 24-hour administrative support.

Additionally, during our May 29, 2015 site visit, staff told us that a delay in patients receiving after-hours radiological imaging services, specifically computerized tomography (CT)⁶⁹ services, contributed to the extended LOS for some ED patients.

Scope and Methodology

We initiated our review in March 2015 and completed our review in March 2016; we received updated data in January 2017. The scope of this review included patient and employee practices related to bed control, inpatient admissions, medical staffing patterns, patient flow, wait times, and quality of care ED issues from October 1, 2013 through January 19, 2017.

We conducted unannounced site visits on May 28–29, June 24, and November 19, 2015. We interviewed the complainant; Associate Chief of Staff for Ambulatory and Emergency Care; Chief Nurse Executive; Chief of the ED; Chief of Imaging; and Director, VHA Emergency Medicine Program Office; Nurse Managers from the ED and inpatient medical units; Medical Administration Service managers; Quality Safety and Improvement staff; EMS staff; and other clinical and administrative staff with relevant knowledge.

We reviewed VHA and system documents related to ED staffing and patient flow procedures; and policy and practice related to inpatient medical admission; data tracking and reporting; environmental management; bed control; and physician and

⁶⁸ “Take report” is medical jargon for a “handoff.”

⁶⁹ “A computerized tomography (CT) scan combines a series of X-ray images taken from different angles and uses computer processing to create cross-sectional images, or slices, of the bones, blood vessels, and soft tissues inside your body. CT scan images provide more detailed information than plain X-rays do.”

<http://www.mayoclinic.org/tests-procedures/ct-scan/basics/definition/prc-20014610>. Accessed October 27, 2016.

resident staffing. We reviewed 22 months of Committee minutes.⁷⁰ We also reviewed relevant electronic mail, applicable patient electronic health records, patient advocate reports, patient flow data, performance improvement data, and VHA Support Services Center (VSSC) reports. We reviewed applicable industry standards, documents, and medical literature.

We limited our inspection to current allegations regarding ED practices and patient flow processes. We also reviewed the system leaders' responses to the 2013 OIG report pertinent to the current allegations. A review of all system responses to the 2013 OIG report was beyond the scope of this review.

We **substantiate** allegations when the facts and findings support that the alleged events or actions took place. We **do not substantiate** allegations when the facts show the allegations are unfounded. We **cannot substantiate** allegations when there is no conclusive evidence to either sustain or refute the allegation.

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.

⁷⁰ We reviewed November 2014–July 2015; September–December 2015; and January–September 2016 minutes.

Inspection Results

Issue 1: Inpatient Admission Delays for ED Patients

We substantiated the allegation that patients remained in the ED for extended hours (more than 4 hours) while waiting for an inpatient medicine bed (specifically telemetry, ICU, and isolation beds) for the time period reviewed. We found that the delay in admission to an inpatient bed was due to patient flow coordination factors including relocation of patients to accommodate clinical needs, limited operational telemetry beds, and delayed bed cleaning processes.

LOS and Boarding Metrics

Using EDIS/EMMT data, we found the facility median ED stays from October 2013 through November 19, 2015 were longer than 4 hours for patients who were admitted to inpatient services (percentage of patients boarded). We also found that the median ED LOS for admitted patients and the delay in inpatient admission exceeded the VHA established minimum performance threshold. In contrast, the facility's median LOS for discharged patients was superior to both the minimum threshold and the national median LOS. This data indicates that the flow of non-admitted ED patients was within VHA expectations whereas admission processes resulted in delays. (See Table 1.)

Table 1. Select Metrics for the Facility ED/UCC October 1, 2013–November 19, 2015

Metric ^{71,72}	Minimum Performance Threshold ⁷³	Facility Performance	National Performance
Percentage Boarded (>4 hours after decision to admit)	25%	46.4%	11.9%
The Median LOS for Admitted Patients (minutes)	360	472	301
Admission Delay (minutes)	150	255	122
The Median LOS for Discharged Patients (minutes)	210	138	149

Sources: Facility Performance: VA Maryland Health Care System - Facility EDIS data October 1, 2013 to November 19, 2015; Minimum Performance Threshold and National Performance: VHA EMMT, User Manual, Version 2.1, (March 9, 2015).

⁷¹ VHA EMMT, *User Manual V2*, November 9, 2015. The EMMT sets forth metrics established by the VA National Program Office of Emergency Medicine to improve emergency care services.

⁷² *Ibid.* VHA has established performance measures for FY 2016 that are equal to or more stringent than those for FY 2015. Because our scope of review includes a limited portion of FY2016, and is insufficient for comparison to the revised FY 2016 standards, Table 2 reflects FY 2015 values.

⁷³ VHA EMMT, *User Manual, Version 2.1*. These are the national minimum performance thresholds set by the VA National Program Office of Emergency Medicine for the respective metrics.

Data for the first quarter of FY 2017 indicates the facility continued to perform poorly on measures for percentage of patients boarded over 4 hours, median LOS and the delay in inpatient admission. (See Table 2.)

Table 2. Select Metrics for the Facility ED/UCC October 1–December 31, 2016

Metric ⁷⁴	FY 17 Minimum Performance Threshold	Facility Performance	National Performance
Percentage Boarded (>4 hours after decision to admit)	25%	55.4%	15.3%
The Median LOS for Admitted Patients (minutes)	360	536	318
Admission Delay (minutes)	150	294	129
The Median LOS for Discharged Patients (minutes)	210	172	152

Sources: VA Maryland Health Care System - Facility EDIS October 1, 2016, to December 31, 2016; see also VHA EMMT, User manual V2, November 9, 2015. See page 12. VHA has established performance measures for FY 2016 which are equal to or more stringent than those for FY 2015. The metrics did not change for FY 2017.

Data Inaccuracy

We found that the accuracy of the ED metrics could be compromised when a provider was unable to enter data timely and/or encountered challenges using EDIS. One provider told us EDIS “is a very buggy program. You have to log back into the system every time and it may take 30 seconds, but it is just so cumbersome,” and it “...is not an effective use of our time and should be done by clerical staff.” The same provider stated that providers sent the data, such as decision to admit time, when “we have a chance” and that the accuracy of the data is “laughable.” In our review of Committee meeting minutes we found one discussion of barriers encountered by EDIS users (extending computer log-in times and searching for patient names) but no documented action plans or follow up in subsequent meetings.

Facility Boarding

VHA requires system policy to outline the maximum number of patients that the ED can hold as boarders, including patients requiring ICU, telemetry services, or in temporary bed locations.⁷⁵ Once the maximum is reached, clinical staff must decide if the new admissions will be placed in a temporary bed or transferred to another facility.⁷⁶ We

⁷⁴ VHA EMMT, *User Manual V2*. VHA has established performance measures for FY 2016 that are equal to or more stringent than those for FY 2015. The metrics did not change for FY 2017.

⁷⁵ VHA Directive 1009.

⁷⁶ *Ibid.*

found that system policy⁷⁷ did not include the maximum number of ED boarders as required by VHA nor did the system meet ED national targets and thresholds for FY 2015.

In 2013, a facility Rapid Process Improvement Workshop (RPIW) identified patient flow barriers that contributed to a “fragmented and inefficient” admission and facility wide discharge process. The identified barriers included patients coming to the ED for non-urgent issues or who needed to be admitted for scheduled admissions, inpatient RNs not documenting a timely report, bed availability, staffing, late morning discharge rounds, and resident availability to write and provide discharge instructions.

A second facility RPIW set goals for ED patient flow in August 2014. As of February 2015, the target goals were not met for all measures. (See Table 3.)

Table 3. ED Flow Rapid Process Improvement Workshop (RPIW), August 11–14, 2014, Final Report-Out, April 29, 2015

Metric	August 2014	Target	November 2014	February 2015
Low Acuity Patients Diverted from ED	8.1%	4%	11.5%	12.4%
Reduce Number of ED delays due to Radiology Services	9%	4.5%	10%	8%
Reduce Number of ED Delays due to Consulting Services	5%	2.5%	6%	4%
Decrease Length for Decision to Admit (minutes)	206	180	224	191
Decrease Length of Stay for Admitted Patients (minutes)	465.5	240	454	491

Source: VA Maryland Health Care System, Emergency Department Flow Rapid Process Improvement Workshop (RPIW), August 11–14, 2014, Final Report-Out, April 29, 2015.

We also found that although VHA established national thresholds and targets for FY 2015, the February 2015 Committee minutes only discussed the monitoring of general measures and did not include discussion of ED benchmarks or comparisons to national level targets and thresholds.

⁷⁷ VAMHCS Policy Memorandum 512-11COS-136.

Patient Flow Coordination

The facility had two inpatient medicine units, 3A and 3B, that were integrated in January 2016. At the time of our site visits in May, June, and November 2015, 3A had 27 beds, including 3 negative pressure rooms, and 3B had 30 telemetry capable beds, including 2 negative pressure rooms.⁷⁸ A negative pressure room may be used for non-isolation patients. Should a patient with an airborne infection be identified or admitted; however, the non-isolation patient occupying the negative pressure room must be moved. For patients with non-airborne infections (such as MRSA), any room may be designated an isolation room.⁷⁹ While negative pressure rooms are generally single-occupancy, patients with the same type of non-airborne infection(s) may share a room.

The Center was staffed by two Flow Coordinators who were responsible for locating available beds and assigning patients to inpatient beds based on availability, provider recommendation, and patient priority.⁸⁰ The Center was open from 7:30 a.m. until 11:30 p.m. each weekday. When a Flow Coordinator was not available, administrative staff worked with the ED and inpatient unit RNs to place patients and monitor patient flow. When certain beds, such as telemetry, isolation, or female only were needed, the Flow Coordinators worked with nursing staff and providers to move patients to free up desired beds. For example, when a telemetry or isolation bed is required but unavailable, the Flow Coordinators, unit nursing staff, and providers will prioritize patient needs and may move a patient from telemetry to another unit. The unit staff notifies EMS staff, and the bed is cleaned and prepared for the next patient. This process often causes a delay in admission from the ED as patients are moved to other units to accommodate the new admission. For instance, when ICU beds are full, the ICU attending physician will identify ICU patients to move to other units, including the ED.⁸¹ Likewise, a patient may be admitted to the inpatient telemetry unit, and a telemetry unit patient would be moved to a non-telemetry unit.

While the facility had 30 telemetry capable inpatient medicine beds (Unit 3B), a maximum of approximately 22 were in use at any given time, primarily due to lack of telemetry trained nurses. In October 2015, the Committee identified a shortage of telemetry beds and discussed increasing the number of telemetry beds to 50 and training and/or hiring additional staff for telemetry care. In December 2016, the Chief Nurse, Medicine informed us that all Unit 3A and 3B RNs have completed telemetry

⁷⁸ A negative pressure room (now known as an airborne infection isolation room (AIIR)) is a single-occupancy patient-care room used to isolate persons with a suspected or confirmed airborne infectious disease. Environmental factors are controlled in AIIRs to minimize the transmission of infectious agents that are usually transmitted from person to person by droplets associated with coughing or aerosolization of contaminated fluids. http://www.cdc.gov/hicpac/pdf/isolation/Pages137_144_Isolation2007.pdf. Accessed October 20, 2015. A negative pressure room is normally used for patients with influenza or tuberculosis.

⁷⁹ An isolation room is used to separate people who may transmit infectious agents to other patients. Isolation rooms are normally used for patients with measles, chickenpox, open wounds, *Staphylococcus aureus*, influenza, and respiratory viruses. <http://www.cdc.gov/hicpac/pdf/isolation/Isolation2007.pdf>, p. 56 *et seq.*

⁸⁰VHA Directive 1009.

⁸¹VAMHCS Policy Memorandum 512-11COS-019, *Operation of the Intensive Care Units*, August 2011.

training; that up to 28 patients could be monitored at one time; and that a software upgrade to expand telemetry services was scheduled for February 2017.

Bed Cleaning Processes

We found that the time to clean beds exceeded the time defined in the 2014 system policy and that BMS was not consistently used to track bed cleaning status or notify the Flow Center of bed availability, as required by system policy.⁸² We also found that the EMS staff schedule including a back-up leave plan was inadequate to support the patient flow process.

EMS staff is responsible for cleaning vacated beds. The EMS staff must follow specified cleaning procedures depending on the type of bed (isolation or non-isolation). EMS staff reported that it takes approximately 2 hours to clean an isolation bed and 45 minutes to clean a non-isolation bed. The January 2015 Committee meeting minutes indicated the average time to clean a bed is 2 hours and 32 minutes.

System policy required EMS staff to use BMS, the electronic system that tracks bed cleaning and availability.^{83,84} System policy stated that when a patient is discharged: (1) the discharging RN notifies the unit clerk (medical support assistant) that the patient is discharged; (2) the clerk notifies EMS, via the BMS, that the bed needs to be cleaned; (3) EMS staff should respond to the notification within 15 minutes and ensure that beds are cleaned within 45 minutes of entry into BMS; (4) EMS staff record the bed as cleaned in BMS; and (5) EMS staff notify the unit clerk that the bed is clean and available.⁸⁵ EMS staff told us that it was difficult and time consuming to find an available computer on the inpatient unit in order to record the bed status in BMS and that they sometimes would wait for a supervisor to advise when a bed is ready for cleaning. Also, we found that EMS and nursing staff used “white boards”⁸⁶ to manually track clean and dirty beds rather than using the BMS electronic function as required by system policy.

EMS staff worked four shifts: 6:00 a.m. to 2:30 p.m., 10:00 a.m. to 6:30 p.m., 2:00 p.m. to 10:30 p.m., and one overnight shift 10:00 p.m. to 6:30 a.m. One bed cleaner was assigned to each inpatient unit and other EMS staff on the unit were expected to assist with bed cleaning if needed. EMS managers reported that the evening shift (2:00 p.m. to 10:30 p.m.) had the highest demand for bed cleaning due to more patient discharges between 5:00 p.m. and 9:00 p.m. Managers told us that most admission delays related to bed flow problems occurred between 3:00 p.m. and 8:00 p.m. Fewer EMS staff were assigned to the afternoon shift (2:00 p.m. to 10:30 p.m.) than to the

⁸² VAMHCS Policy Memorandum 512-11COS-136.

⁸³ Ibid.

⁸⁴ VAMHCS Policy Memorandum 512-11COS-052, *Discharge from Inpatient Care*, May 2014.

⁸⁵ Ibid.

⁸⁶ White boards are dry erase boards, which unit staff use to manually track availability of patient beds. BMS includes an electronic white board for bed tracking.

earlier shift when patient transitions/discharges were less frequent. We also found a lack of available backup EMS staff in the event of unscheduled leave.

Issue 2: The Center and Committee Actions

While we confirmed that patient flow did not improve following the 2013 OIG report, we could not substantiate that the Center “has done little or nothing to alleviate the problem.” While the Flow Coordinators, as representatives of the Center, are members of this Committee, we did not find that the Center is solely responsible for patient flow from the ED. We found that the Committee members did not take adequate action to improve patient flow.

We also found the Committee members discussed ED patient flow issues as well as the reliability of EDIS data; however, we found no documented action plans or follow-up as of December 2015. For example, the Committee members failed to follow up on the identified problems:

- Time required for an admitting resident to see a patient.
- Challenges associated with EDIS data entry.
- Extended time required to clean beds.
- Anticipated opening of a new short stay unit (SSU) to accept admissions.
- Hiring of hospitalists to assist with admissions.
- Effects of surgical patient flow on the entire hospital patient flow.
- Delays in establishing a Virtual Bed policy, a formal tracking process for these beds, and failure to address difficulties with medication orders resulting in a suspension of the use of virtual beds.
- Delays in providing space for the Center.

Additionally, we found that Committee minutes did not consistently include follow-up responsibilities or target dates for tracking actions, and many patient flow barriers identified in the RPIWs were not adequately addressed. In response to the issues identified in the August 2014 RPIW, leaders formed the ED Flow Improvement Team (ED Flow Team) in May 2015 to identify causes of—and solutions for—patient flow delays from the ED to inpatient units.⁸⁷ Specifically, system leaders chartered the ED Flow Team “...to develop and implement sustainable solutions to achieve acceptable scores for the VHA External Peer Review Program (EPRP) and the Emergency Medicine Management Tool Metrics.”⁸⁸ In September 2015, the ED Flow Team members (a Committee subcommittee) identified immediate action items to improve the patient flow process. The action items reported to the Committee included:

⁸⁷ VAMHCS ED Flow Improvement Team Charter. Project Description. Approved March 2015.

⁸⁸ Ibid.

- Increasing early requests for patient transportation to expedite discharges for those patients ready to leave the facility.
- Developing a team of hospitalists and residents that round⁸⁹ at 3:00 p.m. to prepare for next day discharges.
- Using virtual beds for all admissions.
- Achieving 100 percent compliance with handoff procedures for ED and inpatient staff.
- Increasing education on the use of the BMS.
- Assigning specific nurses on inpatient units to accept admissions.
- Establishing short order sets⁹⁰ for admitted patients until residents are able to write complete orders.

The ED Nurse Manager and Patient Flow Coordinators told us that virtual beds were routinely used for patients boarded in the ED. According to the April 2015 Committee minutes, a virtual bed draft policy was awaiting system leaders' review. In November 2015, the use of virtual beds was suspended due to problems with entering and retaining written orders. As of January 2017, system leaders still did not have a virtual bed policy due to problems with the Computerized Patient Record System (CPRS). As of December 2015, system leaders implemented two of the immediate action items: patient discharge transportation options and formation of a rounding team to review next day discharges.⁹¹

In January 2017, we requested a status update for the above items from facility leaders and received the following report:

- Requests for transportation are made during discharge rounds the day prior to discharge and Social Workers and/or Case Managers coordinate the process.
- Two teams of hospitalists round daily to prepare for next day discharge.
- The virtual bed policy is still on hold due to issues with the CPRS.

⁸⁹ A "round" is "a series of professional calls on hospital patients made by a doctor or nurse." <https://www.merriam-webster.com/medical/rounds>. Accessed February 24, 2017.

⁹⁰ Order sets are electronic orders linked in sequences that can be invoked to generate orders quickly. Payne, Thomas H.; Hoey, Patty J.; Nichol, Paul; and Lovis, Christian. *Preparation and Use of Preconstructed Orders, Order Sets, and Order Menus in a Computerized Provider Order Entry System*. Journal of the American Medical Informatics Association, 2003 Jul – Aug; 10(4), pages 322-329.

⁹¹ Nursing staff report the completed actions, which include improved transportation processes for discharged patients and established short order sets.

- “There is currently a committee formed to revise the Ticket to Ride [handoff communication] using the ISBARQ⁹² communication methodology.” This committee is revising the Standard Operating Procedure for handoffs.
- The facility plans to enhance BMS system training for Mental Health and ED staff in February 2017. Additionally, “the ED is currently undergoing renovation. Following the renovation, the final board placement will be decided and staff will be trained. As of January 11, 2017, “There is a national issue regarding the BMS system. Flow leadership is awaiting director [sic] from national leaders.”
- The Charge Nurse on inpatient units assigns admissions at the beginning of the shift and allows even distribution among nurses.
- Leaders reported that residents are able to write full orders and there are “[n]o reported incidents of patients going without orders.”

Issue 3: Resident Admission Capping Rules Impact Patient Flow

We substantiated that when residents meet their VHA required admission limits, they cannot accept additional patients until a patient is discharged from the team’s census. In practice, this requirement limited the patient flow from the ED to inpatient beds. We found that while capping of admissions was consistent with requirements of resident training,^{93,94} system managers did not establish alternative processes to reduce boarding.

Each of the system’s four teams for inpatient medicine admissions include an attending physician, a medical resident, two interns, and occasionally medical students. Residents conduct the admission evaluations and are limited to a specific number of admissions based on their year of residency and a daily capping limit. Under rules set forth by the ACGME, each team is allowed to care for no more than 20 patients at a time. An agreement between the system, the University of Maryland Medical Center, and the University of Maryland School of Medicine outlined terms related to training of internal medicine residents at the system. The agreement specified that residents were permitted to admit no more than five patients in 24 hours or eight patients in 48 hours.

To increase hospital capacity and reduce ED overcrowding (improve patient flow), VHA directed facilities to make “concentrated efforts” to discharge patients as soon as possible and before 10:30 a.m.⁹⁵ System interns and residents are required to attend rounds with the attending physician from 9:00 to 11:00 a.m. daily and are unable to discharge inpatients during this time period. This may also contribute to delays in the

⁹² VAMHCS SOP 118-005. ISBARQ is “[a] framework for effective communication that provides a concise and prioritized structure to facilitate a consistent, comprehensive, and patient centric report.” (I-patient identification; S-patient situation; B-background; A-assessment; R-recommendation; Q-questions).

⁹³ ACGME program requirements for graduate medical education in internal medicine, 2013. https://www.acgme.org/acgmeweb/Portals/0/PFAssets/2013-PR-FAQ-PIF/140_internal_medicine_07012013.pdf. Accessed June 24, 2015.

⁹⁴ VHA Handbook 1400.01.

⁹⁵ VHA Directive 1009.

admission of patients from the ED to inpatient beds. Morning shift residents typically saw inpatients prior to evaluating ED patients for admission further delaying the patient flow from the ED. The Chief Resident reported that as of June 2015, this practice has been discontinued and that admitting residents were required to see ED patients within 30 minutes of receiving notification from the ED.

We identified additional factors that contributed to delays in discharging of patients. Delays occurred when residents and interns routinely had to pick up a patient's medications from the pharmacy and deliver them to the patient prior to discharge; this added to the time required to process a discharge.⁹⁶ Additionally, interns were required to provide all discharge instructions to patients and then RNs provided additional education based on the intern's discharge instructions. Medical staff reported that a pilot permitted the RNs to provide all discharge instructions to patients, but some physicians preferred to provide instructions and the pilot was discontinued.

VHA requires that system policy include contingency staffing plans to address a situation where ED patient care demands exceed the available physician staffing resources.⁹⁷ Additionally, JC requires facilities to take action to improve patient flow when goals are not achieved.⁹⁸ Although system leaders initiated efforts to mitigate patient flow barriers, we found they did not have a robust strategic plan to respond when medicine teams' admissions were capped.

System leaders planned the establishment of an SSU to include a non-teaching hospitalist service with an anticipated opening of July 1, 2015, although the opening was significantly delayed. SSUs generally provide care for patients with an anticipated brief hospitalization or those ready to be discharged.⁹⁹ The proposed facility SSU included a clinical team to manage a limited range of patients such as direct admissions, new dialysis patients, and patients expected to be discharged within 72 hours. The SSU admission team would accept admissions during the daytime only. Patients would be assigned beds primarily on the inpatient medicine floors. The SSU started accepting patients on March 15, 2016. As of April 2016, SSU staffing included seven hospitalists and three Physician Assistants with an additional Physician Assistant in the hiring process. As of January 2017, the SSU includes patients on medicine and surgery, and is staffed by seven hospitalists who rotate through the service, four Physician Assistants dedicated to the SSU team, and there is approval for a fifth Physician Assistant position.

⁹⁶ VAMHCS Memorandum 512-11COS-052.

⁹⁷ VHA Directive 2010-010, *Standards for Emergency Department and Urgent Care Clinic Staffing Needs in VHA Facilities*, March 2, 2010. This directive was rescinded and replaced by VHA Directive 1101.05(2), *Emergency Medicine*, September 2, 2016 (amended March 7, 2017). Both directives have the same or similar language regarding the ED and UCC.

⁹⁸ JC – R3 Report ED Flow Standards LD.04.03.11 Element of Performance 8.

⁹⁹ Damiani, G., et al. *The Short Stay Unit as a new option for hospitals: A review of the scientific literature*. *Med Sci Monit.* 2011; 17(6): SR15–SR19. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3539545/>. Accessed October 20, 2015.

Issue 4: Unmonitored Acutely Ill ED Patients

We could not substantiate that acutely ill patients were sitting in hallways unmonitored. During our three unannounced site visits, we did not observe patients waiting in chairs in the hallway. We were unable to review specific patient electronic health records because the complainant did not provide names of patients who were allegedly placed in the hallway to await assessment and treatment.

ED RNs reported that patients were placed in the hallway awaiting a bed when patient census was high and beds were not available; however, the RNs either visually assessed or monitored the patients with portable electronic monitors when ordered; four of five portable monitors were available that communicated with a central display in the nurses' station. We were unable to determine the frequency of patients being placed in hallways without monitors. System managers denied reports of related adverse events during our review.

Issue 5: ED Care Delays

We substantiated the allegation that the ED was overcrowded and patients waited extended times to be seen by an ED provider on a specific day in 2015. We also found a delay in admissions to inpatient units on this day. We found that the number of ED/UCC visits for the day (98 patients) was above the daily average (71 patients) for the month, and both the median LOS for admitted patients and the boarding rate were above the monthly average. For that specific day, the EMMT data indicated that the time from Door to Triage was within typical ranges; however, the time to see a provider was 63 minutes, which exceeded the VHA upper limit (threshold) of 60 minutes as well as the national average of 39 minutes. We also found that 98 patients visited the ED and the median LOS for discharged patients was 148 minutes (equivalent to the national average), but the LOS for admitted patients was 701 minutes, which exceeded the VHA threshold of 360 minutes and was over double the national average. The admission delay time (measured from the provider's decision to admit to assignment of inpatient bed) was 560 minutes (9.3 hours), and 68.8 percent of admitted patients were boarded over 4 hours.

It appears that while the patient flow within the ED was somewhat impaired, boarding rates were elevated such that other inpatient systemic factors contributed to the delay of ED patients to inpatient beds following a provider's decision to admit. System managers denied adverse events or any reported patient complaints as a result of admission delays and boarding practices for the day in question. In response to our request for reports related to adverse events, system managers told us that no reports related to patient flow were issued. Our review of patient advocate reports did not identify any relevant complaints for that specific day.

Issue 6: Nursing Handoff Delays

We substantiated that RNs on inpatient medicine units were sometimes off the unit and unavailable to receive the handoff report from ED RNs. We found that this impacted the flow of patients from the ED to an inpatient unit. We also found poor communication

between ED and inpatient RNs, as well as between inpatient RNs. This poor communication also impeded the inpatient flow processes.

A union agreement allowed nurses to move their vehicles during duty time after 5 p.m.¹⁰⁰ We found that nursing staff routinely left the hospital to move their vehicles from a public garage to the facility garage after 3:00 p.m. and that coverage of patients was not consistently established during that time. According to system policy, it is an RN's responsibility to notify management when leaving the unit, find an appropriate person to care for their patients during an absence, and provide a timely and appropriate handoff when care is transferred to the other nurse.¹⁰¹ System policy required nursing handoffs whenever the care of a patient was transferred to another RN or to another unit.

While onsite, we also found generally poor communication between the inpatient unit RNs as well as between ED RNs and inpatient unit RNs. These communication gaps contributed to delays in inpatient admissions and inadequate patient coverage by inpatient nursing staff.

On May 28, 2015, at approximately 4:00 p.m., we visited the ED and the inpatient admission units. We found a patient who had been in the ED for over 24 hours awaiting an inpatient bed. Nursing staff could not explain why the ED patient was not accepted for admission to the unit even though a clean bed was available. A unit charge RN was unaware of nursing care coverage for an RN who was off the unit at that particular time. The ED and inpatient unit staff members (providers, RNs, and administrative support) described impaired communication between nursing staff on inpatient units and the ED when admitting patients to the inpatient unit. Specifically, staff members complained that inpatient unit RNs did not answer phones to accept ED handoff; refused to accept a patient from the ED until certain tests were performed; left the patient care unit to move their vehicles; and that ED RNs delayed handoff until evening shift change on the inpatient units when RNs were unable to perform an admission assessment.

Issue 7: ED Modifications

We substantiated that the ED/UCC modification plans included one less ED bed than available at the time of our review. However, the plans also included an upgraded, restricted access, behavioral health treatment area that will be located within the confines of the ED. The restricted area will include two rooms, plus two restraint/isolation rooms.

¹⁰⁰ *Agreement Between The Professional Staff Nurses' Association of Maryland, Service Employees International Union, Local 1998, AFL-CIO, CLC, and The Department Of Veteran Affairs, VA Maryland Health Care System, October 26, 1999. (The Agreement automatically renews.) Article XVII, Section 3 of the Agreement states that "for nurses who must park their car(s) at satellite parking sites, they will be provided reasonable duty time after 5 p.m. to relocate her/his car(s) to the Employer's VA owned parking facility.*

¹⁰¹ VAMHCS SOP 118-005.

We did not substantiate that daily patient ED visits have continued to increase. We found that the number of visits declined from 30,714 in FY 2014 to 29,462 in FY 2015 and then to 27,251 in FY 2016.

Issue 8: Inadequate ED Administrative Support

We substantiated that the facility did not have adequate ED administrative staff to support ED clinical operations. VHA facility directors are required to ensure there is adequate administrative staff to support the ED clinical staff.¹⁰² Among other duties, facility ED administrative staff were needed to assist in EDIS data entry. We found that the ED had one administrative support staff member who worked weekdays from 8:00 a.m. to 4:30 p.m. and was infrequently replaced when on leave or otherwise unavailable. For various administrative reasons, system managers' attempts to hire additional administrative support staff were significantly delayed for over a year. In June 2016, a second administrative support staff employee was hired to cover 3:00 p.m. to 11:30 p.m., and a third full time evening administrative support person was added to the ED staff in August 2016.

Issue 9: CT Delays

We found that the lack of timely after-hours in-house coverage of radiology imaging services, specifically CT, contributed to an extended LOS for some ED patients.

VHA requires that when on-call services are provided, "30 minutes is an acceptable time period to expect arrival of staff at the facility to perform the duties requested."¹⁰³ The system contracted with the University of Maryland for diagnostic imaging services. The contracted technologists are off duty on weekdays from 4:30 p.m. through 8:00 a.m., weekends, and holidays. However, they are required to provide 24-hour/7 days per week on-call coverage. The Chief of Radiology told us that CT scans were sometimes delayed after hours. We found that two patients (identified by staff) waited over 4 hours for the contracted technologist to arrive and perform the scan.

Conclusions

We found system leaders did not ensure sufficient actions in response to the 2013 OIG report recommendations regarding patient flow; specialty bed access; EDIS data collection and monitoring processes; ED LOS; and the Committee's monitoring of follow-up actions.

We substantiated that patients remained in the ED for extended hours (more than 4 hours) while waiting for an inpatient bed. We found that the median ED LOS for admitted patients, the delay in inpatient admission, and the percentage of patients boarded exceeded VHA established targets and thresholds during the period of

¹⁰² VHA Directive 2010-010.

¹⁰³ VHA Directive 1101-05(2). This 30-minute requirement pertains to support services such as laboratory, pharmacy, radiology, and consultative services.

October 2013 through December 2016. We also found that the accuracy of the ED metrics could be compromised when a provider was unable to enter data timely and/or encountered challenges using EDIS. We found that system policy did not include the maximum number of ED boarders as required by VHA.

We found that the delay in admission to an inpatient bed was due to patient flow coordination factors including relocation of patients to accommodate clinical needs, limited operational telemetry beds, and delayed bed cleaning processes. We found that facility staff failed to consistently utilize BMS, as required by system policy. We also found that EMS staff schedules and cleaning processes were inadequate to support the patient flow process. We found that the Committee did not take adequate action to improve patient flow.

We substantiated that the system's capping practice for medical residents may limit the number of patients the admitting teams can treat; however, VHA requires that admission capping limits are consistent with ACGME rules to maintain the integrity of patient care and the residency program. We found that facility managers had not established alternative processes to address the patient flow problems related to capping limits. We also found that medical residents/interns routinely retrieved patient medications and provided discharge instructions, which may have contributed to delays in inpatients' discharges.

We could not substantiate the allegation that patients with chest pain or shortness of breath sat in hallways unmonitored. We substantiated that on one day in 2015, the ED was over-crowded and patients waited extended times to be seen by a physician and/or admitted to an inpatient unit. However, we found no reports of complaints or adverse patient events as a result of the admission delays and boarding practices.

We substantiated that RNs on inpatient medicine units were sometimes off the unit and unavailable to receive the handoff report from ED RNs, which contributed to delays in admissions from the ED. We also found poor communication between ED and inpatient RNs, as well as between inpatient RNs, that impeded the inpatient flow processes.

We substantiated that the ED/UCC modification plans included one less ED bed than was available at the time of the review but also included a new four-bed behavioral health treatment area. We did not substantiate that daily patient volumes continued to increase and found a decrease in number of patient visits from FY 2014 to FY 2016.

We also substantiated that the ED administrative support staffing level was not compliant with the VHA requirement to provide adequate support. Further, we found that the lack of timely after-hours in-house coverage of CT scan services contributed to the extended LOS for some ED patients.

Recommendations

1. We recommended that the Veterans Integrated Service Network Director ensure that VA Maryland Health Care System managers strengthen patient flow processes.

- 2.** We recommended that the Veterans Integrated Service Network Director ensure that VA Maryland Health Care System managers evaluate staff's Emergency Department Integrated Software data entry and implement action plans to ensure data accuracy and timeliness.
- 3.** We recommended that the Veterans Integrated Service Network Director ensure that the VA Maryland Health Care System managers strengthen Patient Flow Committee processes to include the establishment of patient flow goals, action target dates, and oversight of action implementation.
- 4.** We recommended that the System Director ensure that policy regarding patients boarding in the Emergency Department include all required elements.
- 5.** We recommended that the System Director strengthen Bed Management Solution utilization and processes, and monitor compliance.
- 6.** We recommended that the System Director strengthen processes to improve timeliness of bed cleaning.
- 7.** We recommended that the System Director review the impact of inpatient medicine admission capping and establish alternative plans that improve patient flow from the Emergency Department, monitor outcomes, and implement alternative plans as warranted.
- 8.** We recommended that the System Director review and address processes that contribute to delays of inpatient discharge.
- 9.** We recommended that the System Director strengthen nursing service communication processes to ensure consistent inpatient care coverage and nurses' availability for Emergency Department handoff.
- 10.** We recommended that the System Director evaluate the adequacy of Emergency Department administrative support staffing and take appropriate action.
- 11.** We recommended that the System Director improve and monitor compliance with response time requirements for after-hour computerized tomography scan services.

VISN Director Comments

**Department of
Veterans Affairs**

Memorandum

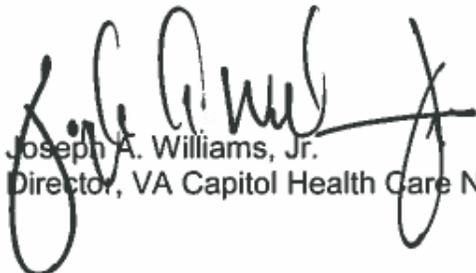
Date: JULY 05, 2017

From: Director, VA Capitol Healthcare Network (10N5)

Subj: Healthcare Inspection—Patient Flow, Quality of Care, and Administrative Concerns in the Emergency Department, VA Maryland Health Care System, Baltimore, Maryland

To: Director, Baltimore Office of Healthcare Inspections (54BA)
Director, Management Review Service (VHA 10E1D MRS Action)

1. I would like to express my appreciation to the Office of Inspector General (OIG) Healthcare Inspection Team for their professional and comprehensive review of the patient flow, quality of care, and administrative concerns in the Emergency Department at the VA Maryland Health Care System (VAMHCS), Baltimore, Maryland. I have reviewed the draft report, and concur with the report and conclusions rendered.
2. Please express my thanks to the Team for their professionalism and assistance to us in our continuing efforts to improve the care we provide to our Veterans.
3. For any further questions regarding this matter, please contact Jeffrey D. Lee, Quality Management Officer, VISN 5, at (954) 541-7514.



Joseph A. Williams, Jr.
Director, VA Capitol Health Care Network, VISN 5

Comments to OIG's Report

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

OIG Recommendations

Recommendation 1. We recommended that the Veterans Integrated Service Network Director ensure that VA Maryland Health Care System managers strengthen patient flow processes.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: The VA Maryland Health Care System (VAMHCS) leadership reviews Emergency Department (ED) boarding and flow data daily. Facility Chief of Staff (COS) authorizes and expedites inter-facility transfer of care from ED to appropriate level of care when patients do not have VAMHCS bed placement within four hours. Facility COS or designee requires use of virtual beds for any patient waiting greater than thirty minutes for nursing handoff to VAMHCS inpatient units. Bed Management System (BMS) is fully operational and implemented. Nursing, Environmental Management Services (EMS) and Flow Center leadership are responsible for full BMS implementation and utilization.

Recommendation 2. We recommended that the Veterans Integrated Service Network Director ensure that VA Maryland Health Care System managers evaluate staff's Emergency Department Integrated Software data entry and implement action plans to ensure data accuracy and timeliness.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: The VAMHCS Emergency Department attending physicians are responsible for timely and consistent updating of EDIS. The Flow Committee will review and monitor the Emergency Management Tool (EMMT) Data Reliability Measures to provide feedback to emergency room physicians and the Chief of Staff. The Chief of Staff will address any compliance issues.

Recommendation 3. We recommended that the Veterans Integrated Service Network Director ensure that the VA Maryland Health Care System managers strengthen Patient Flow Committee processes to include the establishment of patient flow goals, action target dates, and oversight of action implementation.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: The function of the flow committee is to identify and address delays regarding patient flow though out the VAMHCS.

The primary goal of the Flow Committee is to decrease wait times for inpatient admissions. As we strive to reach that goal, the following specific elements will be the focus of the Flow Committee:

- To provide oversight and monitoring of BMS implementation, utilization, and compliance.
- Track and monitor admission delays to improve the efficiency of patient movement from the Emergency Department to the inpatient units.
- Track and monitor data relating to inpatient discharges to address barriers of timely discharge.

Each goal has been implemented. The VA Maryland Health Care System will have supporting documentation of Flow Committee activities no later than Sep 30, 2017.

The Flow Committee will provide oversight of the OIG recommended implementations. The Flow Committee reports to the EPIC Committee on a quarterly basis. Additionally, the Chief of Staff will provide oversight to the Flow Committee activities.

System Director Comments

**Department of
Veterans Affairs**

Memorandum

Date: JUNE 28, 2017

From: Director, VA Maryland Health Care System (512/00)

Subj: Healthcare Inspection— Patient Flow, Quality of Care, and Administrative Concerns in the Emergency Department, VA Maryland Health Care System, Baltimore, Maryland

To: Director, VA Capitol Healthcare Network (10N5)

1. I would like to express my appreciation to the Office of Inspector General Survey Team for their professional and comprehensive review of patient flow, quality of care and administrative concerns in the Emergency Department at the VA Maryland Health Care System (VAMHCS), Baltimore, Maryland. I have reviewed the draft response and concur with the findings and recommendations.
2. Please express my gratitude to the survey team for their professionalism and assistance to us in our continuing efforts to provide the best care possible for our Veteran patients.



Adam M. Robinson, Jr., MD

Comments to OIG's Report

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

OIG Recommendations

Recommendation 4. We recommended that the System Director ensure that policy regarding patients boarding in the Emergency Department include all required elements.

Concur

Target date for completion: Completed.

Facility response: The Boarder Policy has been signed and will be posted no later than July 14, 2017.

OIG Comment: OIG accepted this action as complete based on the review of the boarder policy.

Recommendation 5. We recommended that the System Director strengthen Bed Management Solution utilization and processes, and monitor compliance.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: The BMS policy was published on April 17, 2017. All inpatient Nurse Managers are responsible for ensuring compliance of ward clerks and nursing staff to ensure timely input of data into the system. Nursing service will audit data to determine individual performance on correct utilization of BMS. Audit results will be shared with inpatient unit staff and reported in Nursing Performance Improvement Council, the Executive Performance Improvement Council (EPIC) and VAMHCS Flow Committee meetings. Audits will begin the week of June 26, 2017. Corrective actions will be undertaken for documented lack of compliance with BMS responsibilities. If the electronic BMS white boards are inoperable, or other BMS related technical failures/outages, the BMS down time contingency plan is implemented.

Recommendation 6. We recommended that the System Director strengthen processes to improve timeliness of bed cleaning.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: To ensure that Environmental Management Service (EMS) staff enters data into BMS timely, EMS floor staff will call the EMS supervisor when there is no immediate access to a computer to input data. The EMS supervisor will be responsible for input of the data into BMS. Audit results will be shared with EMS staff and reported at the VAMHCS Flow Committee meetings. Corrective actions will be undertaken for documented lack of compliance with BMS responsibilities.

Recommendation 7. We recommended that the System Director review the impact of inpatient medicine admission capping and establish alternative plans that improve patient flow from the Emergency Department, monitor outcomes, and implement alternative plans as warranted.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: The inpatient medicine Gold team was established March 2016 and consists of an attending physician and team of physician assistants. The number of episodes where an inpatient team capped went from a high of 114 episodes in calendar year 2015, 18 episodes in calendar year 2016 to just 4 episodes in 2017. Going forward, the Chief of Staff or designee will review the inpatient admissions, and when bed capacity is exceeded a determination will be made to transfer patients for admission. The Flow Team staff will monitor inpatient delays in real time, and address any challenges as identified. Data from this review will be presented at the VAMHCS Flow Committee meeting.

Recommendation 8. We recommended that the System Director review and address processes that contribute to delays of inpatient discharge.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: There has been a thorough review of processes and challenges relating to inpatient discharge. Processes have been implemented to address delays of inpatient discharge on both the medical and surgical service. Interdisciplinary team rounds have been restructured to round more efficiently to ensure more timely discharges. Additionally, the Gold (short stay team) improves emergency room through-put. Delays related to inadequate number of staff with PECOS enrollment have

been eliminated. Telemetry utilization is reviewed daily. Patients who do not meet criteria for telemetry are identified for the medical teams to remove telemetry order, allowing the telemetry bed to be available for ED patients.

Recommendation 9. We recommended that the System Director strengthen nursing service communication processes to ensure consistent inpatient care coverage and nurses' availability for Emergency Department handoff.

Concur

Target date for completion: August 21, 2017

Facility response: Nursing service will complete 100% concurrent reviews until there is 100% compliance with the requirement that patients are transported to the inpatient unit within 30 minutes. If admission time exceeds 30 minutes, patients will be placed in virtual beds. Compliance data and action plans for remediation will be reported at Nursing Performance Improvement Committee, EPIC, and VAMHCS Flow Center Committee meetings.

Recommendation 10. We recommended that the System Director evaluate the adequacy of Emergency Department administrative support staffing and take appropriate action.

Concur

Target date for completion: Completed.

Facility response: The registration area is adequately staffed by 3 to 4 administrative staff during the day and 2 to 3 administrative staff evenings to check in patients. There is an Administrative Officer of the Day (supervisor) 24/7 assigned to the ED. Since 2016, nursing service has staffed the ED clinical area with 2 administrative support personnel who answer phones and address administrative tasks from 7:30 a.m. to midnight.

OIG Comment: OIG accepted this action as complete based on the review of the July 2017 staffing report and contingency plan.

Recommendation 11. We recommended that the System Director improve and monitor compliance with response time requirements for after-hour computerized tomography scan services.

Concur

Target date for completion: This recommendation is currently implemented; however, we will monitor our compliance with the recommendation and will provide the documented evidence no later than September 30, 2017.

Facility response: Currently, there is CT technician coverage in-house five days a week, 24 hours a day, with on-call coverage on weekends. This coverage was implemented when VAMHCS hired an additional CT technician in February 2016. An additional CT technician was hired June 2017. The most recently hired CT technician is pending an EOD.

For emergent CT studies, the non-VA care authorization process is streamlined to ensure rapid access to the needed study. During weekdays and evenings, the Baltimore AOD processes the authorization on site and on weekends/nights, the Perry Point AOD rapidly completes the authorization request so that imaging tests are performed at our affiliate next door.

In 2014 difficulty in obtaining imaging study was listed 370 times as a reason for delay in patient flow. With the additional coverage in Imaging Service that reason for delay has dropped to only 74 instances this year. The Flow Center and ED staff will begin real-time review of all episodes of care where the provider identified a delay in obtaining imaging studies and address any identified issues. Data from these reviews will be reported at Flow Center Committee meetings where it will be tracked for sustainment of implemented actions.

OIG Contact and Staff Acknowledgments

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