



**Department of Veterans Affairs
Office of Inspector General**

Office of Healthcare Inspections

Report No. 13-03604-198

Healthcare Inspection

**Quality of Care and Staffing
Concerns**

**Salem VA Medical Center
Salem, Virginia**

June 23, 2014

Washington, DC 20420

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Executive Summary

The VA Office of Inspector General Office of Healthcare Inspections conducted an inspection in response to quality of care and staffing concerns at the Salem VA Medical Center (facility), Salem, VA.

We substantiated that post-operative complications for orthopedic and podiatry surgery cases increased in fiscal year 2013. The facility has implemented corrective actions and is monitoring for effectiveness.

We did not substantiate that bowel perforations occurred during surgery requiring ostomies; that a number of outpatients having lung biopsies required chest tube placements and admissions; that patients were being told that they had a spot on their lung and months later were told they had Stage IV lung cancer; or that a dying patient was inappropriately transferred from the emergency department to a medical/surgical unit.

We also did not substantiate that the administrative officer of the day was admitting patients to units that could not properly care for them resulting in those patients being transferred within minutes of arrival. However, we did identify inefficiencies in the admission process and inter-unit transfer patterns.

We substantiated the subject unit had been staffed for 20 patients. In 2013, the unit's bed capacity increased from 20 to 24 patients. Staffing initially remained the same while the facility monitored the average daily census to determine the unit's resource needs. Additional nursing staff have been hired. We did not substantiate that the unit routinely received up to 15 admissions during an 8-hour shift.

We recommended that the Facility Director continue to monitor and address increases in post-operative infection rates and take appropriate corrective actions when indicated and evaluate the admission process from the emergency department, monitor inter-unit transfer patterns, and take corrective actions as needed.

Comments The Veterans Integrated Service Network and System Directors concurred with the report. (See Appendixes A and B, pages 8–10, for the Directors' comments.) We will follow up on the planned actions until they are completed.



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

Purpose

The VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an inspection in response to quality of care and staffing concerns at the Salem VA Medical Center (facility), Salem, VA. The purpose of the review was to determine whether the allegations had merit.

Background

The facility provides a broad range of inpatient and outpatient medical, surgical, mental health, and long-term care services. It has 182 operating hospital beds including 2 inpatient medical/surgical units. The facility serves a veteran population of about 112,500 throughout southwest Virginia and is part of Veterans Integrated Service Network (VISN) 6. The majority of the allegations in this case referenced the operations of medical/surgical unit 1 (MSU-1).

On June 26, 2013, OIG received a complaint alleging that:

- The facility has an excessive incidence of post-operative complications, specifically infections in orthopedic surgery cases (knees and hips) and podiatry cases (nerve decompression), as well as bowel perforations requiring ostomies¹ in general surgery cases.
- A number of outpatients having lung biopsies require chest tube placement and hospital admission due to “dropped lungs.”
- A number of patients were told, “You have a small spot on your lung, we are going to watch it,” and 6 months later, they were diagnosed with Stage IV lung cancer.
- The administrative officer of the day (AOD) office is staffed after hours with non-clinical personnel, and because of this, patients were being inappropriately placed on MSU-1, which was unable to meet the patients’ needed levels of care. Within minutes to hours of arrival on MSU-1, the patients required transfer to an appropriate unit.
- MSU-1 is staffed for 20 patients, yet it has a census of 24 at times. Further, MSU-1 receives as many as 15 admissions in an 8-hour period.
- A dying patient presented to the emergency department (ED) and was transferred to MSU-1 rather than remaining in the ED or transferring to the Palliative Care Unit. The patient died approximately 30 minutes later.

The complainant did not provide patient names, dates, or details in support of the allegations.

¹ Ostomy is defined as a surgically created opening from an area inside the body to the outside.

Scope and Methodology

We conducted a site visit on September 25–27, 2013. We interviewed the complainant and reviewed selected patient electronic health records; relevant facility and national policies, directives, and handbooks; and relevant reports including patient advocate, incident, VA Surgical Quality Improvement Program, patient safety, time and attendance, and census gains and losses. In addition, we reviewed quality assurance documents, committee meeting minutes, staff training records, MSU-1's nurse staffing methodology,² and position descriptions. We also interviewed nursing staff, AODs, quality management staff, the infection prevention practitioner, and physicians.

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.

² Staffing methodology is a process for determining staffing levels based on an analysis of multiple variables to include patient or resident needs, environmental and organizational supports, and professional judgment to recommend safe and effective staffing levels at various points of care.

Inspection Results

Issue 1: Quality of Care

Post-Operative Complications

We substantiated that the incidence of post-operative infections in orthopedic and podiatry surgery increased in fiscal year (FY) 2013. We did not substantiate an increase in bowel perforations that required ostomies.

Infections in Orthopedic and Podiatry Cases. Surgical site infections (SSIs) are one of the most common post-operative complications. The Centers for Disease Control and Prevention categorizes SSIs as superficial, deep incisional, or organ/space infections. SSIs are less likely to occur in clean wounds (surgical incisions that are without signs of inflammation and do not enter the respiratory, alimentary, and genitourinary tracts) than contaminated and/or infected wounds. The facility's cases that were classified as clean wounds that developed SSIs increased from 0.4 percent in FY 2012 to 1.6 percent in FY 2013. The majority of SSIs were in orthopedic and podiatry cases.

The facility noted an increase in orthopedic- and podiatry-related SSI cases in FY 2013. As a result of this increase, the facility developed an action plan to include investigating the potential source of infections, training operating room (OR) staff using preoperative skin antiseptic on surgical preparation, changing the suture type used by an orthopedic surgeon, and minimizing traffic through the OR. The facility also reviewed the temperature and humidity of the OR, use of personal protective equipment, and effectiveness of room cleaning. In December 2013, the facility closed the OR³ to install a new ultraviolet air filter and clean the air ducts and requested funds for a new air handler. The OR has since reopened. The infection prevention practitioner told us that the facility had implemented multiple corrective actions; however, it was too early to determine if the problems have been fully resolved.

Bowel Perforations in General Surgery Cases. A bowel perforation is a hole that develops through the wall in the small or large intestine, which allows the contents of the intestine to leak into the abdominal cavity, potentially causing a serious infection called peritonitis. This condition is a medical emergency, and treatment often involves surgery to repair the perforation.⁴ An ostomy, or a surgically created opening for the discharge of body waste, may be necessary.⁵ The facility had only one case of bowel perforation in FY 2012 and no cases in FY 2013. In the identified case, a rectal injury occurred during a gynecological surgery. The facility notified the patient and family of the incident post-operatively. The patient did not require an ostomy.

³ Minor procedures and procedures not requiring incisions continued during the OR closure.

⁴ <http://www.nlm.nih.gov/medlineplus/ency/article/000235.htm>, Accessed December 10, 2013.

⁵ http://www.ostomy.org/ostomy_info/whatis.shtml, Accessed April 8, 2014.

Lung Biopsy Complications

While we substantiated that some outpatients undergoing lung biopsies developed “dropped lungs,” which required hospital admission and chest tube placement, we found that the incidence of these events was within the expected range. A pneumothorax or “dropped lung” occurs when air leaks into the space between the lungs and chest wall, causing one or more portion of the lungs to collapse. Pneumothorax is the most common significant complication associated with percutaneous chest biopsy. Inadvertently induced pneumothorax is reported to occur in 5–20 percent of patients after percutaneous lung biopsy.⁶

The facility’s radiologists performed 34 computed tomography guided lung biopsies during the first 3 quarters of FY 2013, with 3 (9 percent) resulting in a complication requiring chest tube placement. Different imaging providers performed each procedure.

Delayed Diagnoses

We did not substantiate the allegation that a number of patients were told, “You have a small spot on your lung, we are going to watch it,” and 6 months later, they were diagnosed with Stage IV lung cancer.

Stage IV lung cancer refers to the most advanced form of this disease, where the cancer has spread beyond the lungs to other areas of the body.⁷

We reviewed the Tumor Board meeting minutes from August 2012 through July 2013 to identify patients with lung cancer or a tumor. We found no cases in which patients developed Stage IV lung cancer within 6 months after the identification of a spot on their lung. Of the 24 cases reviewed, we identified one patient with a lung nodule⁸ and a treatment plan to “watch and wait.” Due to the size of the nodule and the patient’s risk factors, the patient and provider agreed to defer treatment with close follow-up. The provider maintained consistent communication with the patient. The patient returned for follow-up in 6 months, and the nodule remained unchanged.

Issue 2: Admission, Staffing, and Inter-Unit Transfer

AOD and Admission Process

We did not substantiate that the AODs’ non-clinical status resulted in patients being admitted to unsuitable hospital units. According to facility policy, the AOD is responsible

⁶ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3036417>, Accessed October 24, 2013.

⁷ <http://www.cancer.gov/cancertopics/pdq/treatment/non-small-cell-lung/Patient/page2#Keypoint18>, Accessed January 2, 2014

⁸ A lung nodule is a small mass of tissue found in the lung.

for the coordination and resolution of all administrative issues.⁹ The ED physician has the authority to determine the need for hospitalization and the patient's level of care.¹⁰

During our interviews, the AODs and Nursing Officers of the Day corroborated that ED physicians, in collaboration with medical and surgical teams, decide on patients' admissions and levels of care. The AODs stated they do not make clinical decisions related to patient care; rather, they rely on the ED physicians and the Nursing Officers of the Day for all clinical determinations and functions. We found no evidence that AODs were making admission and placement decisions without clinical input.

During the course of our review, however, we identified inefficient admission practices for patients admitted through the ED to a medical unit. The current process is described below.

The ED physician evaluates the patient and determines the level of care, contacts the medicine or intensive care team to accept the patient and assure handoff,¹¹ and then contacts the bed flow coordinator or AOD to determine bed location. The medicine team has 30 minutes to assess the patient in the ED and change the level of care, if necessary. If the medicine team does not assess the patient prior to transfer to the designated unit, the patient could be improperly placed and require transfer to a different level of care. In addition, the patient can arrive to the unit from the ED without medicine team orders. The nursing staff is then required to page the medicine team to obtain orders to begin admitting the patient to the unit.

We reviewed patient movement data for the 2 weeks prior to our site visit, September 11–25, 2013. While the 2 weeks of movement sheets only noted one patient admitted from the ED to MSU-1 who then transferred to a higher level of care the same day, staff we interviewed perceived this condition to occur more frequently. In the identified case, we found no documented evidence that the medicine team assessed the patient prior to admission to MSU-1.

Staffing Issues

We substantiated the allegation that the MSU-1 unit was staffed for 20 patients and that the unit had a census of 24 at times.

In December 2013, the Staffing Methodology Facility Expert Panel¹² presented data to the Executive Leadership Team supporting an increase in MSU-1's bed capacity from 20 to 24. The Facility Expert Panel further advised that MSU-1 had a high patient turnover rate and that the facility should monitor the average daily census to determine

⁹ Salem VAMC Memorandum 658-136-24, *Administrative Officer of the Day (AOD) (Irregular Hours)*, February 28, 2011.

¹⁰ Salem VAMC Memorandum 658-11-33, *Admission Policy*, December 6, 2012.

¹¹ Handoff is communication in a real-time, interactive process of passing patient specific information from one caregiver or team to another for the purpose of ensuring the continuity and safety of the patient's care.

¹² VHA Directive 2010-034, *Staffing Methodology for VHA Nursing Personnel*, July 19, 2010. The expert panel is an advisory group comprised of individuals with in-depth knowledge of evidence-based factors impacting staffing needs at the point of care.

the need for additional staffing. Initially, staffing remained unchanged as the facility monitored the average daily census. By the time of our site visit, the nurse manager had received approval and was in the process of hiring staff. Since our site visit, MSU-1 has hired eight nurses and is currently recruiting for two additional nursing positions.

We could not substantiate the allegation that the unit received as many as 15 admissions in an 8-hour period. The complainant did not provide us with specific dates, so we reviewed patient movement data for the 2-week period September 11–25, 2013, to determine if this was a regular occurrence. During this time, MSU-1 admitted between 4 and 9 patients and discharged or transferred between 2 and 11 patients in a single day. The nursing staff we interviewed reported between 8 and 10 admissions and 8 and 10 discharges a day.

Improper Admission

We did not substantiate the allegation that a dying patient presenting to the ED was improperly transferred to MSU-1 rather than being allowed to either remain in the ED or transfer to the Palliative Care Unit. The complainant did not provide us with the patient's name but offered a general timeframe when the event occurred. We identified the case through a review of admissions and deaths during the period suggested.

The patient was an elderly man who was receiving home hospice care. At 7:35 a.m., the patient's wife and sister-in-law escorted him to the ED because of increased confusion and failure to thrive. ED staff discussed the patient's wishes with his family. The patient's wife signed a Do Not Resuscitate document, stated the patient only wanted comfort care, and requested all intravenous fluids be held. At approximately 10:00 a.m., ED staff entered a palliative care consult and admitted the patient to MSU-1. The ED nurse communicated the patient's status to the MSU-1 nurse.

The patient's condition continued to deteriorate. At 10:50 a.m., the palliative care social worker documented that the palliative care staff attempted to obtain a report from the ED but were told the patient was admitted to MSU-1 with the goal to transfer the patient to palliative care the following day. MSU-1 provided the patient with comfort care and medications for pain and anxiety. The patient died at 11:18 a.m.

During our interview, the complainant stated that the patient should have been made comfortable in the ED or been transferred to the Palliative Care Unit. The complainant agreed that no harm was done by admitting the patient to MSU-1 and that appropriate care was provided to the patient and family.

We found that the patient and family received appropriate care in the ED and on MSU-1. MSU-1 nursing staff we spoke with stated that they had received end-of-life training and were comfortable caring for dying patients and their families. By nature, an ED can be chaotic and loud. As it is difficult to predict time of death, the ED staff made a reasonable decision to admit the patient to MSU-1, which afforded a higher level of privacy and comfort.

Conclusions

We substantiated that the incidence of post-operative infections in orthopedic and podiatry surgery increased in FY 2013. The facility has implemented multiple corrective actions and is monitoring the effectiveness of those actions. We did not substantiate an increase in bowel perforations that required ostomies in general surgery cases.

We did not substantiate the allegations that an excessive number of outpatients having lung biopsies required chest tube placements and admissions or that patients were being told that they had a spot on their lung and 6 months later were told they had Stage IV lung cancer.

We did not substantiate that the AODs were inappropriately placing patients on MSU-1, resulting in transfer to a higher level of care within minutes of arrival. However, we found inefficient admission practices for patients admitted from the ED to medical units, which may contribute to delays in initiating care.

We substantiated the subject unit had been staffed for 20 patients. In 2013, the unit's bed capacity increased from 20 patients to 24 patients. Additional nursing staff has been hired. Based on a 2-week sample, we did not substantiate that the unit received up to 15 admissions during an 8-hour shift.

We did not substantiate that a dying patient was inappropriately transferred from the ED to MSU-1.

Recommendations

1. We recommended that the Facility Director continue to monitor and address increases in post-operative infection rates and take appropriate corrective actions when indicated.
2. We recommended that the Facility Director evaluate the admission process from the emergency department and monitor inter-unit transfer patterns, and take corrective actions as indicated.

VISN Director Comments

**Department of
Veterans Affairs**

Memorandum

Date: May 23, 2014

From: Director, Veterans Integrated Service Network (10N6)

Subject: Draft Report—Healthcare Inspection – Quality of Care and Staffing Concerns, Salem VA Medical Center, Salem, Virginia

To: Director, Atlanta Office of Healthcare Inspections (54AT)
Director, Management Review Service (VHA 10AR MRS OIG Hotline)

1. Attached is the action plan developed by the Salem VA Medical Center in response to the recommendations received during their recent OIG review.
2. The Facility concurs with the findings and will ensure the corrective action plan is implemented.
3. If you have any questions please contact Lisa Shear, VISN 6 QMO, at (919) 956-5541.

(original signed by:)

DANIEL F. HOFFMANN, FACHE

Facility Director Comments

**Department of
Veterans Affairs**

Memorandum

Date: May 22, 2014

From: Director, Salem VA Medical Center **(658)**

Subject: Draft Report—Healthcare Inspection – Quality of Care and Staffing Concerns, Salem VA Medical Center, Salem, Virginia

To: Director, VA Mid-Atlantic Health Care Network (10N6)

1. Thank you for the opportunity to review the OIG report on the Review of Salem VA Medical Center. We concur with the recommendations, and will ensure completion as described in the implementation plan.
2. Please find attached our responses to each recommendation provided in the attached plan.
3. If you have any questions regarding the response to the recommendations, feel free to call me at (540) 982-2463.

(original signed by:)
MIGUEL H. LAPUZ, MD, MBA

Comments to OIG's Report

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

OIG Recommendations

Recommendation 1. We recommended that the Facility Director continue to monitor and address increases in post-operative infection rates and take appropriate corrective actions when indicated.

Concur

Target date for completion: Completed

Facility response: Data for post-operative wound infections is collected and analyzed by the Infection Control Preventionist to determine if there are trends and if results are within acceptable ranges. Mitigation efforts are initiated as issues are identified. This data is presented quarterly to the Surgical and Operative Invasive Procedures Committee for review and evaluation. Reporting goes forward to the Medical Executive Board for additional review and oversight.

Recommendation 2. We recommended that the Facility Director evaluate the admission process from the emergency department and monitor inter-unit transfer patterns, and take corrective actions as indicated.

Concur

Target date for completion: August 29, 2014

Facility response: Facility leadership is reviewing the admissions policy to determine if there is opportunity to enhance processes for clarity and function. In addition, two monitors have been developed to review ordering and inter-unit transfer patterns: (1) the presence of orders placed for patients admitted to acute Medicine from the Emergency Department before arriving on the units, and (2) the number of patients admitted to acute Medicine units who are transferred to a different level of care within one hour of admission. Data collection and analysis will be performed with reports to the Medical Executive Board. Corrective actions will be taken as necessary.

OIG Contact and Staff Acknowledgments

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