Department of Veterans Affairs
Office of Inspector General

Office of Healthcare Inspections

Report No. 14-04037-404

Healthcare Inspection

Vascular Surgery Resident Supervision VA Nebraska-Western Iowa Health Care System Omaha, Nebraska

July 9, 2015

Washington, DC 20420

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

The VA Office of Inspector General Office of Healthcare Inspections conducted a review to assess the merit of allegations regarding lack of supervision for vascular surgery residents resulting in poor patient care at the VA Nebraska-Western Iowa Health Care System, Omaha, NE.

We did not substantiate the allegation that vascular residents were not supervised by attending surgeons (attendings). We found that vascular resident supervision documentation met Veterans Health Administration requirements and the Accreditation Council for Graduate Medical Education (accrediting body for resident supervision programs) guidelines. The six cases identified by the complainant did not demonstrate adverse events or near misses attributable to a lack of resident supervision. During the review, we found that attendings did not cosign vascular surgical resident notes timely. Veterans Health Administration policy requires that facilities define and document the timeframe for cosigning resident notes. While local policy defines a 7-day timeframe for attendings' co-signature of outpatient resident progress notes, we did not find a documented timeframe requirement for co-signature of inpatient resident progress notes. We did not find that delays in attendings' co-signatures on resident notes resulted in poor patient care.

We recommended that the VA Nebraska-Western Iowa Health Care System Director ensure that the timeframe for supervisor co-signature of inpatient resident progress notes is defined and documented and that resident progress notes are cosigned timely.

Comments

The Veterans Integrated Service Network and System Directors concurred with the findings and recommendations and provided acceptable action plans. (See Appendixes A and B, pages 10–12, 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 a review to assess the merit of allegations regarding lack of supervision for vascular surgery residents resulting in poor patient care at the VA Nebraska-Western Iowa Health Care System (system), Omaha, NE.

Background

The system includes the Omaha VA Medical Center (facility) and eight community based outpatient clinics. The system is part of Veterans Integrated Service Network (VISN) 23 and serves approximately 161,000 veterans in Nebraska, western Iowa, and portions of Kansas and Missouri.

The facility is a 124-bed, tertiary care medical center that provides primary and specialized outpatient health care and acute inpatient surgical, medical, and psychiatric care. This Level-1c[1] facility is designated as a Veterans Health Administration (VHA) Complex Surgical Program.[2] Surgical specialty services include gastroenterological, general, orthopedic, neurological, plastic, thoracic, and vascular surgery.

Surgical specialty care is provided by attending surgeons (attendings) and resident physicians (residents)[3] affiliated with the University of Nebraska Medical Center College of Medicine and Creighton University School of Medicine. Approximately 125 residents rotate between the universities and the facility and provide care for VA patients under attendings' supervision.

Resident Supervision. VA is the nation's largest integrated provider of health care education and training for physician residents.[4] VHA resident training programs are accredited through the Accreditation Council for Graduate Medical Education (ACGME).[5] ACGME requires that residents receive appropriate levels of supervision through the physical presence or immediate availability of a supervisor.[6]

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[1] *2013 VHA Facility Quality and Safety Report Fiscal Year 2012 Data*, December 2013, http://www.va.gov/HEALTH/docs/VHA_Quality_and_Safety_Report_2013.pdf. Accessed September 2, 2014. VA categorizes medical facilities at Levels 1a, 1b, 1c, 2, or 3. Level-1a facilities are the most complex and Level-3 facilities the least complex. Complexity levels are based on patient population, clinical services offered, educational and research missions, and administrative complexity.
[2] VHA Directive 2010-018, *Facility Infrastructure Requirements to Perform Standard, Intermediate, or Complex Surgical Procedures*, May 6, 2010.
[3] A resident is a person who is in an accredited graduate physician training program and participates in patient care under the direction of supervising practitioners.
[4] 2014-2020 VA Strategic Plan, http://www.va.gov/op3/docs/StrategicPlanning/VA2014-2020strategicPlan.PDF. Accessed September 3, 2014.
[5] ACGME is a non-profit private council that evaluates and accredits U.S. medical residency and internship programs and provides resident supervision guidelines.
[6] ACGME, http://www.acgme.org/acgmeweb/Portals/0/PDFs/dh-faqs2011.pdf. Accessed September 2, 2014.

The VHA Handbook on Resident Supervision[7] requires that attendings document resident supervision,[8] defines four types of allowable documentation,[9] and describes when each type of documentation should be used.[10] VHA expects residents to have progressive authority and show increasing responsibility for patient care during their rotations at VA medical centers. The progressive nature of the training is important in developing independent physicians.

Allegations. On July 9, 2014, OIG's Hotline Division received allegations from a confidential complainant concerning physician absences, lack of resident supervision, and poor communication with staff that resulted in surgical patients' adverse outcomes, delays in care, and patient safety issues. In a subsequent interview, the complainant withdrew all of the allegations with the exception of lack of vascular surgery resident supervision resulting in adverse patient events or near misses. The complainant provided information on six patients. For the sixth patient name provided, the complainant alleged that the patient received poor care because the unsupervised vascular resident used the wrong vein to create the patient's hemodialysis access.

Scope and Methodology

To address the complainant's allegations, we reviewed the electronic health records (EHRs) of six patients alleged to have received poor care as a result of inadequate resident supervision. We looked for evidence of attendings' co-signatures or other documentation of their supervision of and involvement with resident decision-making and provision of care.

We reviewed relevant VHA and facility policies; operating room reports, time and attendance reports, schedules, surgical procedures, and standard operating procedures; medical literature including recognized surgical and Interventional Radiology (IR) best practices; Resident Review Committee meeting minutes; Amion[11] physician on-call schedules; ACGME guidelines; and other documentation relevant to surgical resident supervision.

We interviewed the complainant and relevant clinical and managerial staff including the Chief of Staff, Chief of Surgery, surgical specialty service chiefs, attending surgeons,

[7] VHA Handbook 1400.01, *Resident Supervision*, December 19, 2012. (This Handbook is due for recertification by the end of December 2017.)
[8] *Ibid*. Page 4: "The timeframe for signing or co-signing the progress notes, consultations, and reports is delineated in local facility policy, local medical staff bylaws, or accreditation requirements."
[9] The four documentation methods include: (1) a separate attending progress note; (2) an attending's addendum to the resident's note; (3) an attending's co-signature of the resident note, which implies agreement with the content; or (4) resident use of a specific verbiage in the note, such as, "I have seen and discussed the patient with my supervising practitioner Dr. X, and Dr. X agrees with my assessment and plan."
[10] Separate attending notes are required in the emergency department, operating room, inpatient admissions, intensive care units, and when patients have complex or critical medical conditions.
[11] Amion is an online scheduling program that lists all on-call attendings, residents, and other staff. Schedules include days, nights, and weekend on-call coverage. http://amion.com/. Accessed September 3, 2014.

interventional radiologists, and surgical residents. We also interviewed the Resident Coordinator, Quality Management Director, Academic Affiliations Officer, and Patient Safety Officer.

We conducted the inspection in accordance with *Quality Standards for Inspection and Evaluation* published by the Council of the Inspectors General on Integrity and Efficiency.

Inspection Results

Clinical Case Reviews

Patient 1

At the time of our review, the patient was in her early 70s with a history of multiple medical problems including peripheral vascular disease.[12] She presented to the facility's Emergency Department (ED) in summer 2014, with a 1 month history of left foot pain.

The patient was admitted and found to have stenosis (narrowing) of blood vessels in the lower abdomen and legs with decreased blood flow to her lower extremities. The IR team placed stents to improve circulation. A vascular surgery resident (vascular resident) saw the patient each day. The patient did well postoperatively and was discharged home after 6 days of hospitalization

We found one vascular resident note not cosigned by an attending until 8 days later and four vascular resident notes not cosigned until 17 days later.

Patient 2

At the time of our review, the patient was in his early 60s with multiple medical problems including end stage kidney disease. An arteriovenous (AV) graft[13] for dialysis access had been placed at a non-VA hospital in 2011. In spring 2012, the patient was admitted to the VA for possible cellulitis[14] around his graft, which did not appear to be functioning. Three days later, a vascular resident saw the patient, recommended intravenous antibiotics and a temporary access for dialysis, and discussed the surgical treatment plan with an attending. An interventional radiologist opened the graft, and the patient was discharged home the same day. In fall, a vascular resident examined the patient for cramping associated with dialysis treatments. The vascular resident determined that the graft was open.

Over the next 2 years, the patient received hemodialysis and saw an interventional radiologist on several occasions for difficulties with his graft. In spring 2014, during a surgery clinic visit, the patient was seen by a vascular resident who documented a plan for operative intervention to place a new graft. The patient received a new graft 3 weeks later. In a separate note, an attending stated that he examined the patient, reviewed the history and physical, and concurred with the treatment plan.

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[12] Peripheral vascular disease is a circulation disorder that affects blood vessels outside of the heart and brain. Symptoms may include leg cramps, leg numbness or weakness, and/or coldness in lower legs or feet.
[13] The AV graft is one of two types of surgical vascular access designed for long-term dialysis use. The second type is the AV fistula. An AV graft is a looped, plastic tube that connects an artery to a vein. An AV fistula is a connection, made by a vascular surgeon, of an artery to a vein. For short-term dialysis use, surgeons use a venous catheter. An AV graft is more likely than an AV fistula to have problems with infection and clotting. Repeated blood clots can block the flow of blood through the graft.
[14] Cellulitis is an infection of the skin and deep underlying tissues.

We found that vascular resident notes signed in spring and fall 2012, and in spring 2014, were not cosigned until 8, 30, and 8 days later, respectively.

Patient 3

At the time of our review, the patient was in his mid-60s with a history of multiple medical conditions. In summer 2014, the patient presented to the vascular surgery clinic following stenting[15] of a lower extremity artery by an interventional radiologist. He complained of continuing pain associated with a chronic leg wound. The vascular resident wrote that he anticipated the wound would improve with the increased blood flow to that leg.

The patient presented to the ED the next day with worsening pain in his right leg. He was diagnosed with an acute blockage of the stent. The vascular resident's admitting note stated that in-stent thrombolysis[16] would be attempted, and, if it failed, the patient would require a below the knee amputation. The vascular resident reviewed the plan with two attendings. An interventional radiologist performed a successful in-stent thrombolysis. A vascular resident saw the patient each day for the next 4 days and documented that the patient was discussed with the attending in each note. The patient was discharged 6 days later.

We found eight vascular resident notes for this timeframe. Four of the vascular resident notes were cosigned within 1 day; the other four were not cosigned until 20, 27, 28, and 34 days later.

Patient 4

At the time of our review, the patient was in his 70s with multiple medical problems. In spring 2014, a vascular surgery consult was ordered to evaluate leg pain possibly resulting from claudication.[17] As part of the evaluation, a bilateral lower extremity arteriogram[18] was performed. The patient was admitted after the arteriogram, a vascular surgery resident entered a note in the EHR and the patient was discharged home the next day.

In summer, the patient was seen for a follow-up appointment in the vascular surgery clinic. The vascular resident documented that the patient was not a good candidate for stenting by an interventional radiologist and that he was a risky candidate for a bypass procedure because of his co-morbidities and recommended follow-up in 1 year.

We found that the vascular resident's note in early summer 2014 indicated the patient was discussed with the attending; however, the note was not cosigned until 22 days

[15] Stenting is the placement of a tiny tube in an artery or blood vessel to hold it open.
[16] Thrombolysis is a procedure used to break up blood clots inside blood vessels.
[17] Claudication is pain or cramping in the lower leg caused by too little blood flow during exercise. It is usually relieved by rest.
[18] An arteriogram is an imaging test that uses x-rays and a special dye to see inside the arteries.

later. The vascular resident's note in summer indicated that the patient was discussed with the attending but was not cosigned until 9 days later.

Patient 5

The patient was in his 60s when he died in 2014. He had multiple medical problems including end stage kidney disease and the need for permanent dialysis access.[19] The patient was followed by vascular surgery for multiple recurrent dialysis access issues. In winter 2014, a vascular resident scheduled the patient for a loop fistula that was accomplished 4 days later. In spring, the patient was admitted for a thrombosis in the fistula and cellulitis. The vascular resident discharged the patient 2 days later and noted that the case was discussed with the attending who concurred with the plan to schedule the de-clotting procedure as an outpatient.

In spring, the patient was admitted to the facility on two occasions with abdominal pain. He was discharged home at the end of the month with home health care services. The patient continued being seen in outpatient services and the dialysis clinic.

Over the next several weeks, the patient was admitted to non-VA hospitals for continued complaints and subsequently died in early summer.

We found that a vascular resident's note entered in winter 2014 when he/she scheduled the patient for his loop fistula was not cosigned until 13 days later. Three vascular resident's notes entered in winter and early spring were not cosigned as of January 27, 2015; however, the patient was seen by attendings from other services on these dates. Two vascular resident notes in spring were not cosigned until 34 and 182 days later.

Patient 6

At the time of our review, the patient was in his early 70s with multiple medical problems including end stage kidney disease. Since 2010, the patient has been seen by vascular surgery service. In spring 2010, the patient had a primary AV fistula created for dialysis access in his left upper extremity.

Between 2010 and 2013, the patient had numerous IR procedures to relieve stenosis[20] and clotting within and around the fistula. In summer 2013, the IR service indicated they could not perform additional procedures to salvage the left AV fistula. In late summer, a vascular surgeon read an ultrasound of the right upper extremity which showed open axillary, subclavian, and cephalic veins (diameter range of 1.9 to 3.8 millimeters). In early fall, a vascular resident saw the patient and scheduled him for a right upper extremity radiocephalic fistula. A few weeks later, a vascular surgeon placed a right radiocephalic AV fistula.

[19] Chronic pancreatitis occurs when the pancreas becomes damaged by long-standing inflammation.
[20] Stenosis is a narrowing of the blood vessels.

Between fall and winter 2013, the right AV fistula failed to mature. By late fall, notes indicated multiple problems with the new fistula. In early winter, notes described a large venous collateral branch[21] near the fistula, compromising flow through the fistula, and a failure of the fistula to mature. Soon after the new year, an interventional radiologist stated that the cephalic vein was diseased and not salvageable. About 2 weeks later, a surgeon successfully relocated the fistula.

We found that five vascular resident notes signed in fall and winter 2013 and early 2014 were not cosigned until 9, 11, 27, 28, and 28 days later.

Issue 1: Lack of Resident Supervision Resulting in Adverse Events

We did not substantiate the allegation that vascular residents were not supervised by attendings. We found that vascular resident supervision documentation met VHA requirements and ACGME guidelines and that attendings were present during vascular surgery procedures. The six cases identified by the complainant did not demonstrate adverse events or near misses attributable to a lack of resident supervision. For the sixth patient name provided, we did not substantiate the allegation that the patient received poor care because the unsupervised vascular resident used a wrong vein to create the patient's hemodialysis access (see discussion below).

We did not find evidence of difficulties with resident supervision. Residents interviewed did not communicate a lack of supervision. Supervisors and back-up supervisors' contact information was readily found in the facility's online scheduling program. Chief residents told us that the scheduling program worked well, residents reported no issues with contacting a supervisor, and that university faculty provided an additional level of supervision as needed.

We found that the six surgical patient cases reviewed demonstrated complex medical issues and decision making that involved both residents and attendings. Attendings cosigned most of the residents' notes, and several of the notes indicated that the cases were discussed with the attendings. For the three notes without attendings' co-signature, documentation was present in the EHR that the patient was examined on those dates by attendings from other services. Under VHA policy, cosigning a resident's note is acceptable documentation of resident supervision. While VHA does not dictate an acceptable timeframe for co-signature, VHA does require that the facility define and document this timeframe.[22]

We did not find evidence in the EHRs that the six patients received poor care related to resident supervision.

[21] A venous collateral branch, or competitive collateral, is a minor blood vessel that enlarges and develops increased flow due to impairment of an adjacent graft or major vein or artery.
[22] VHA Handbook 1400.01, Resident Supervision, December 19, 2012, Page 4: "The timeframe for signing or co-signing the progress notes, consultations, and reports is delineated in local facility policy, local medical staff bylaws, or accreditation requirements."

For the sixth patient, despite some generally accepted principles of AV fistula placement, clinical guidelines rely heavily on a surgeon's judgment regarding which blood vessels (arteries and veins) to use to create an AV fistula.[23] This patient had a very complex history and multiple problems with his AV fistulas. Further, although we found five resident notes cosigned from 9 to 28 days later, the notes documented that the residents involved in this patient's care were supervised, and the attending concurred with key decisions regarding the placement of this fistula. The attending performed the vascular imaging evaluating the viability of using these blood vessels for the fistula and subsequently documented that he agreed with the decisions regarding placement of this fistula. We did not find that the residents in this case were unsupervised or that the patient received poor care based on the vein used for AV fistula placement.

Issue 2: Other Findings—Attending Co-Signature Timeframes and Delays

VHA policy[24] on resident supervision requires facilities to create a local resident supervision policy and to define timeframes for signing or cosigning progress notes, consultations, and reports. The facility has a local resident supervision policy; however, we found no documented timeframe for attendings' co-signature of inpatient resident progress notes.

Local policy defined a same day inpatient admission note timeframe, but no timeframe was found for co-signature of other types of inpatient progress notes. Local policy specified that outpatient resident progress notes must be cosigned within 7 days.

An attending told us that the expectation was to cosign all resident notes within 24 hours. Leadership stated that because the supervising provider is required to see the patient every day, the provider would read and cosign the resident entry in that timeframe (every day). However, other managers and clinical staff did not provide a definitive local expectation for a cosigned note timeframe.

The EHR reviews showed a trend of delays in attendings cosigning vascular resident notes. We found several vascular residents' progress notes, both inpatient and outpatient, cosigned by attendings from 8 to 182 days after the residents signed the notes. We found three inpatient vascular resident progress notes that lacked attendings' co-signatures; however, there was documentation of attendings from other services examining the patient on those dates. While we found that attendings did not cosign vascular residents' notes timely, we did not find that co-signature delays resulted in poor patient care.

[23] NKF KDOQI Guidelines 2000.
[24] VHA Handbook 1400.01, *Resident Supervision*, December 19, 2012.

Conclusions

We did not substantiate the allegation that vascular residents were not supervised by attendings. We found that vascular resident supervision documentation met VHA requirements and ACGME guidelines.

The six cases identified by the complainant did not demonstrate adverse events or near misses attributable to a lack of resident supervision. During the review, we found that the facility did not define the timeframe for co-signature of inpatient residents' progress notes as required by VHA. We also found a trend of delays in attendings cosigning vascular resident notes.

VHA requires that the facility define and document the timeframe for attendings to cosign resident notes. While local policy defined timeframes for attendings signing inpatient admission notes and cosigning outpatient resident progress notes, we did not find a local documented timeframe for co-signature of inpatient resident progress notes.

We did not find that delays in attendings' co-signatures on resident notes resulted in poor patient care.

Recommendations

1. We recommended that the System Director ensure the timeframe for supervisor co-signature of inpatient resident progress notes is defined and documented.

2. We recommended that the System Director ensure that attending surgeons cosign resident progress notes timely.

Appendix A

VISN Director Comments

Department of Veterans Affairs

Memorandum

Date: February 26, 2015

From: Director, VA Midwest Health Care Network (10N23)

Subj: **Draft Report**— Healthcare Inspection – Vascular Surgery Resident Supervision, VA Nebraska-Western Iowa Health Care System, Omaha, Nebraska

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

1. Please find attached the recommendations from the OIG report and Nebraska-Western Iowa Health Care Systems response to the recommendations.

2. If additional information is required, please contact Linda Muell, Quality Manager at Nebraska-Western Iowa Health Care System at 402-995-4758.

(original signed by:)

Steven C. Julius, M.D.
Acting Network Director

Appendix B

System Director Comments

Department of Veterans Affairs

Memorandum

Date: February 26, 2015

From: Director, VA Nebraska-Western Iowa Health Care System (636/00)

Subj: **Draft Report**— Healthcare Inspection – Vascular Surgery Resident Supervision, VA Nebraska-Western Iowa Health Care System, Omaha, Nebraska

To: Director, VA Midwest Health Care Network (10N23)

1. Please find attached the recommendations from the OIG report and Nebraska-Western Iowa Health Care Systems response to the recommendations.

2. If additional information is required, please contact Linda Muell, Quality Manager at Nebraska-Western Iowa Health Care System at 402-995-4758.

(original signed by:)

Eileen Kingston
Acting Director

Comments to OIG's Report

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

OIG Recommendation

Recommendation 1. We recommended that the System Director ensure the timeframe for supervisor co-signature of inpatient resident progress notes is defined and documented.

Concur

Target date for completion: May 4, 2015

System response: Appropriate polices will be updated to include specific timeframe requirements for co-signature of inpatient resident progress notes.

Recommendation 2. We recommended that the System Director ensure that attending surgeons cosign resident progress notes timely.

Concur

Target date for completion: July 30, 2015

System response: After policy implementation, all attending providers who supervise residents will receive education about the requirements to co-sign resident notes within stated timeframe. Once fully implemented, the compliance with attending co-signatures of resident process notes will be monitored by monthly medical records reviews. Data results will route to the Medical Records Committee and then to the Medical Executive Council. Findings specific to providers who are found non-compliant will route to Medical Staff leadership for follow-up.

Appendix C

OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the OIG at (202) 461-4720.
Contributors	Laura Dulcie, BSEE, Team Leader Andrea Buck, MD Clarissa Reynolds, CNHA, MBA

Appendix D

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