



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF INSPECTOR GENERAL

Office of Healthcare Inspections

VETERANS HEALTH ADMINISTRATION

Mismanagement of
Emergency Department
Care of a Patient with Acute
Coronary Syndrome at the
Robert J. Dole VA Medical
Center in Wichita, Kansas



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Executive Summary

The VA Office of Inspector General (OIG) conducted a healthcare inspection to evaluate allegations that coordination and quality of care issues contributed to the delay of an interfacility transfer and led to a patient death shortly after transfer from the Robert J. Dole VA Medical Center (facility) in Wichita, Kansas, to a non-VA community hospital. The OIG identified additional concerns related to

- Communication among facility staff and 911 emergency medical services (EMS) dispatch,
- Leadership and quality management oversight, and
- Interfacility transfer data.

The OIG substantiated that coordination and quality of care issues in the management of the patient, who presented to the facility's Emergency Department with acute coronary syndrome (ACS) symptoms, contributed to the patient's death.¹ Specifically, an Emergency Department physician (physician 1) mismanaged the care provided to the patient by failing to initiate a timely interfacility transfer to a hospital capable of providing a percutaneous coronary intervention (PCI).² The patient subsequently died after an interfacility transfer to a non-VA community hospital (community hospital).

The patient presented to the facility's Emergency Department with ACS symptoms in early 2019, at 1:45 p.m. The Emergency Department protocol for the initial management of patients presenting with symptoms of ACS outlined a goal for the completion of an electrocardiogram (EKG) within 10 minutes of arrival, a nursing and physician assessment within 15 minutes of arrival, and initiation of treatment within 20 minutes of arrival.³ The OIG concluded that

¹ Merck Manual, *Acute Coronary Syndromes (Heart Attack; Myocardial Infarction; Unstable Angina)*. Acute coronary syndrome (ACS) is a medical emergency that occurs as the result of a sudden blockage in an artery that supplies the heart muscle with blood. <https://www.merckmanuals.com/home/heart-and-blood-vessel-disorders/coronary-artery-disease/acute-coronary-syndromes-heart-attack-myocardial-infarction-unstable-angina>. (The website was accessed on February 3, 2020.)

² National Heart, Lung, and Blood Institute, *Percutaneous Coronary Intervention*. Percutaneous coronary intervention is a nonsurgical procedure that uses a catheter to remove blockages in the coronary arteries. <https://www.nhlbi.nih.gov/health-topics/percutaneous-coronary-intervention>. (The website was accessed on January 29, 2020.)

³ Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017. Mayo Clinic, *Electrocardiogram (ECG or EKG)*. An electrocardiogram is a medical device used to record the electrical activity of the heart. <https://www.mayoclinic.org/tests-procedures/ekg/about/pac-20384983>. (The website was accessed on April 29, 2020.)

Emergency Department staff appropriately managed the patient's initial presenting symptoms in accordance with the ACS protocol.⁴

The patient's condition deteriorated with worsening pain and diaphoresis and a second EKG was completed.⁵ Physician 1 contacted the facility cardiologist (cardiologist) 44 minutes after the patient's arrival to the Emergency Department. The cardiologist advised that due to EKG findings and lack of patient response to treatment provided in the Emergency Department, physician 1 should transfer the patient to a community hospital capable of PCI as this procedure was not available at the facility.

Physician 1 made two calls to the community hospital to initiate transfer of the patient. The first call was to contact the patient's personal community cardiologist.⁶ The second call, placed 50 minutes after the patient's arrival to the Emergency Department, was to reach the community hospital's on-call cardiologist who was admitting ST-elevation myocardial infarction (STEMI) patients that day.⁷ Electronic health record transfer documents indicate the community hospital's on-call cardiologist accepted the patient and agreed to the transfer 62 minutes after the patient's arrival to the facility's Emergency Department.

The patient experienced a cardiac arrest 64 minutes after arrival and became unresponsive.⁸ A code blue (code) protocol was initiated.⁹ Emergency Department staff administered

⁴ Joshua P. Loh, et al., "First Medical Contact-to-Device Time and Heart Failure Outcomes Among Patients Undergoing Primary Percutaneous Coronary Intervention," *Circulation: Cardiovascular Quality and Outcomes* 11 (2018): 1-10. For the purpose of this report, the OIG used the patient's arrival time in the Emergency Department as the time of first medical contact. <https://www.ahajournals.org/doi/pdf/10.1161/CIRCOUTCOMES.118.004699>. (The website was accessed on April 7, 2020.)

⁵ Merriam-Webster, *Definition of diaphoretic*. Diaphoretic (diaphoresis) describes a person who is profusely sweating. Diaphoresis is a symptom of a heart attack. <https://www.merriam-webster.com/dictionary/diaphoretic>. (The website was accessed on February 6, 2020.)

⁶ The OIG was unable to determine the time of the first call as physician 1 did not document the time this call was made nor speaking to the patient's personal community cardiologist.

⁷ Cleveland Clinic, *CAD: Acute Coronary Syndrome*. ST-elevation myocardial infarction is a type of ACS that occurs when one or more of the coronary arteries supplying the heart with blood are blocked by an obstruction. <https://my.clevelandclinic.org/health/diseases/16713-cad-acute-coronary-syndrome>. (The website was accessed on May 4, 2020.)

⁸ Merck Manual, *Cardiac Arrest*. Cardiac arrest occurs when the heart stops pumping, and blood stops circulating in the body. If left untreated this results in death. <https://www.merckmanuals.com/professional/critical-care-medicine/cardiac-arrest-and-cpr/cardiac-arrest?query=cardiac%20arrest>. (The website was accessed on April 27, 2020.)

⁹ Merriam-Webster, *Definition of code blue*. Code blue is the declaration of a medical emergency with the summoning of medical personnel and equipment to attempt cardiopulmonary resuscitation of a patient experiencing a cardiac arrest or respiratory failure. <https://www.merriam-webster.com/medical/code%20blue>. (The website was accessed on April 28, 2020.)

cardiopulmonary resuscitation.¹⁰ A Health Administrative Service staff member called EMS 911 dispatch to request emergent transport of the patient from the facility to the community hospital.¹¹ Emergency Department staff and the EMS critical care paramedic determined the patient was stable enough to transfer 155 minutes after arrival. However, upon leaving the facility's Emergency Department, the patient's heart rhythm again became abnormal and EMS staff reinitiated cardiopulmonary resuscitation while en route to the community hospital. The patient died shortly after arrival to the community hospital's Emergency Department. The PCI procedure was not performed.

The OIG found that PCI services were offered at the facility but were limited to scheduled procedures and were unavailable for high-risk STEMI or ACS patients. The facility's ACS protocol identified a goal of less than 30 minutes from the time a STEMI patient arrives to and departs from the Emergency Department to go to a PCI-capable facility. The OIG concluded that failure to transfer the patient for PCI within 30 minutes limited the patient's chances for the best possible outcome. The patient's symptoms upon presentation to the Emergency Department warranted prompt action by physician 1. However, physician 1 failed to act urgently on the patient's deteriorating condition. The OIG found that physician 1 waited to call the cardiologist for over 40 minutes after the patient's arrival to the Emergency Department, which further delayed the patient's care. The OIG was unable to determine the reason for the delay in transferring the patient to a PCI-capable facility due to the inability of physician 1 to recall details one year after the event occurred.

The OIG concluded that the patient's instability at the time EMS staff arrived at the facility further delayed the patient's emergent transport to the community hospital; however, this delay was unavoidable due to the Veteran's Health Administration's (VHA) transfer policy requiring the patient to be stable for transport.

The facility lacked a written policy specifying a standardized process to request an interfacility transfer of patients, and Emergency Department staff used inconsistent terminology when describing the type of EMS response needed to ensure the EMS 911 dispatch could arrange the correct emergent transport. Neither the Hospital Admissions policy nor ACS protocol included a

¹⁰ Merck Manual. *Cardiopulmonary Resuscitation (CPR) in Adults*. Cardiopulmonary resuscitation is the organized sequential response to a cardiac arrest including recognition of absent breathing and circulation, basic life support, advanced cardiac life support, and post-resuscitative care. <https://www.merckmanuals.com/professional/critical-care-medicine/cardiac-arrest-and-cpr/cardiopulmonary-resuscitation-cpr-in-adults?query=cpr#v925728>. (The website was accessed on March 23, 2020.)

¹¹ EMS.gov, *What is EMS?* Emergency medical services are provided by private or public agencies that offer emergency medical care to patients following a serious injury or illness. <https://www.ems.gov/whatisems.html>. (The website was accessed on April 5, 2020.)

description of the types of EMS responses available for interfacility patient transfers.¹² Although the OIG did not identify that an incorrect EMS request contributed to a transfer delay for the patient, the lack of a facility policy that outlined a standardized transfer process is a vulnerability as miscommunication of needed services could result in a delay, improper EMS response, and adverse patient outcomes.

The OIG learned from facility leaders and staff that many staff believed the wrong type of emergency medical service was requested by the Health Administrative Service staff member during the 911 dispatch call. After a review of the transcript from the audio recording of the 911 dispatch call, the OIG confirmed that the Health Administrative Service staff member's request for an emergent transfer with red lights and sirens accurately reflected the patient's need at the time the call was made.

At the conclusion of the on-site visit, the OIG expressed concerns to the Facility Director of the unclear communication among staff during the interfacility transfer process, which may prevent the safe, timely transfer of patients. The OIG also identified concerns related to the EMS radio communication with the Emergency Department staff, and unclear signage throughout the facility after the Emergency Department relocated.¹³ The OIG requested that the Facility Director immediately address identified issues and provide a plan for and verification of corrective actions taken to resolve these concerns. In April 2020, facility leaders provided the OIG with a new Emergency Department Interfacility Transfers policy, clarification on the EMS radio communication, and documentation to support Emergency Department physician and nursing staff training related to the new policy and EMS radio communication. Facility leaders also reported the installation of directional signage to the Emergency Department.

The facility completed a root cause analysis and code review, and initiated peer reviews after the death of the patient. The OIG found, however, that the facility did not determine the contributing factors that led to the delay in the patient's interfacility transfer to the community hospital or take actions to improve the emergent EMS transfer process.¹⁴

The Associate Director, Patient Care Services and the Facility Director reported that after the OIG sent notification of the hotline inspection, the root cause analysis and patient's care were

¹² Facility Policy CPC-13-14, *Hospital Admissions*, March 26, 2013. This policy was in effect at the time of the event and has been rescinded and replaced by Facility Policy HOS-04, *Hospital Admissions*, May 30, 2019. The updated policy similarly lacked language regarding a description of the types of EMS responses available for interfacility patient transfers. Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017.

¹³ Facility staff reported to the OIG having difficulty communicating via radio with EMS staff transporting patients to the facility and that signage inside and outside the facility directing patients and EMS to the Emergency Department was inadequate. These concerns were related to the relocation of the Emergency Department to a new location in January 2020.

¹⁴ VHA Handbook 1050.01, *VHA National Patient Safety Improvement Handbook*, March 4, 2011. VHA defined a root cause analysis as a process for identifying the contributing causes associated with adverse events or close calls.

reviewed more closely. It was determined that the facility did not complete an evaluation of the delay of the patient's emergent interfacility transfer. Without a thorough and credible analysis, the facility was unable to identify improvements for processes most likely associated with the patient's delay in the emergent interfacility transfer, which may increase the likelihood of reoccurrence of similar delays in the future.

Although the facility's Critical Care Committee reviewed the patient's code event, the Critical Care Committee did not address a concern about a delay in the patient's care and did not make recommendations or ensure actions were implemented relative to avoiding future delays. When asked about the Critical Care Committee's review of a delay in the patient's care, the Chairperson provided perspective about physician 1's actions to initiate an interfacility transfer and the facility's transfer practices for patients who presented with a STEMI, but did not indicate that the Critical Care Committee discussed the delay in care. Additionally, the OIG found that the former Chief, Quality Management was not a member of the Critical Care Committee, the former Chief did not attend two Critical Care Committee meetings in spring 2019, and concerns with obtaining EMS transport for emergent transfers were not reviewed at the Critical Care Committee.¹⁵ The former Chief, Quality Management reported being unaware of the responsibility to address delays or problems in obtaining EMS assistance or the 911 call system.

The Facility Director initiated peer reviews of the Emergency Department physicians and nurses in 2020 almost one year after the patient's death. The OIG determined that the peer reviews were not initiated timely, the reviewer did not provide an individual assessment of the care provided by each physician, and the facility's Peer Review Committee took no action to obtain an individual assessment of the patient's care provided by each physician. Without timely individual reviews of the clinical decisions made by the Emergency Department physicians, facility leaders could not identify opportunities for immediate or long-term improvements in patient care.

The facility did not complete an institutional disclosure to the patient's family or representative to express concern and provide an explanation of the delay in the patient's emergent transfer to the community hospital.¹⁶ The Chief of Staff confirmed that an institutional disclosure was not completed. The Chief of Staff also reported not being aware of the patient's death until nine months after the patient's demise and not being involved in a discussion related to an institutional disclosure after becoming aware of the patient's death.

¹⁵ The former Chief, Quality Management had moved to another position within the facility at the time of the OIG interview.

¹⁶ VHA Directive 1004.08, *Disclosure of Adverse Events to Patients*, October 31, 2018. VHA defines institutional disclosure as "a formal process by which VA medical facility leader(s) together with clinicians and others, as appropriate, inform the patient or the patient's personal representative that an adverse event has occurred during the patient's care that resulted in or is reasonably expected to result in death or serious injury."

Facility leaders failed to collect, monitor, or evaluate interfacility transfer data as part of VHA's quality management program. The former Chief, Quality Management reported being aware of the requirement to collect and evaluate interfacility transfer data, although the data were not being collected. This is a repeat finding from a prior OIG review.¹⁷ The OIG determined that the absence of interfacility transfer data limited the ability of leaders to analyze and identify transfer system issues.

The OIG made one recommendation to the Veterans Integrated Service Network Director related to peer review and nine recommendations to the Facility Director related to staff training, interfacility transfers, policy updates, committee oversight, institutional disclosure, and interfacility transfer data collection.

Comments

The Veterans Integrated Service Network and Facility Directors concurred with the recommendations and provided acceptable action plans (see appendixes B and C for the Directors' comments). The OIG will follow up on the planned actions until they are completed.



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¹⁷ VA Office of Inspector General, *Comprehensive Healthcare Inspection Program Review of the Robert J. Dole VA Medical Center, Wichita, Kansas*, Report No. 17-01748-82, February 6, 2018. The Comprehensive Healthcare Inspection Program reviews key clinical and administrative processes and are performed approximately every three years for each facility.

Contents

Executive Summary	i
Abbreviations	viii
Introduction.....	1
Scope and Methodology	4
Patient Case Summary	5
Inspection Results	7
1. Allegation: Mismanagement of the Patient’s Acute Coronary Syndrome.....	7
2. Related Concern: Leadership and Quality Management Oversight.....	14
Conclusion	20
Recommendations 1–10.....	23
Appendix A: Timeline of Care	25
Appendix B: VISN Director Memorandum.....	27
Appendix C: Facility Director Memorandum.....	29
Glossary	36
OIG Contact and Staff Acknowledgments	40
Report Distribution	41

Abbreviations

ACS	acute coronary syndrome
EHR	electronic health record
EKG	electrocardiogram
EMS	emergency medical services
HAS	Health Administrative Service
OIG	Office of Inspector General
PCI	percutaneous coronary intervention
STEMI	ST-elevation myocardial infarction
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network



Introduction

The VA Office of Inspector General (OIG) conducted a healthcare inspection at the Robert J. Dole VA Medical Center (facility) in Wichita, Kansas, to review allegations that coordination and quality of care issues contributed to the delay of an interfacility transfer for a patient with acute coronary syndrome (ACS) and led to a patient's death shortly after transfer to a non-VA community hospital. The OIG reviewed additional concerns related to leadership and quality management oversight related to the patient's care.

Background

The facility, part of Veterans Integrated Service Network (VISN) 15, is classified by the Veterans Health Administration (VHA) as a Level 2 complexity facility.¹⁸ From October 1, 2018, through September 30, 2019, the facility served 29,326 patients and had a total of 81 operational hospital beds, including 41 inpatient beds and 40 community living center beds. The facility serves veterans living in 59 counties of Kansas and operates six community-based outpatient clinics located in Hays, Salina, Hutchinson, Dodge City, Liberal, and Parsons.

Acute Coronary Syndrome

ACS is a medical emergency that occurs as the result of a sudden blockage in a [coronary artery](#). Symptoms of ACS can include chest pressure or pain, shortness of breath, [diaphoresis](#), and fatigue. Clinicians diagnose ACS by assessing a patient's medical history, symptoms, and interpreting tests such as an [electrocardiogram](#) (EKG) and blood tests that measure substances released into the blood after heart tissue is damaged. Treatment for patients with ACS may vary according to the type and severity of syndrome and may include restoration of blood flow to the heart.¹⁹

ST-Elevation Myocardial Infarction

ST-elevation [myocardial infarction](#) (STEMI) is a type of ACS that occurs when one or more of the coronary arteries supplying the heart with blood are blocked by an obstruction, such as a blood clot.²⁰ Patients with STEMI have specific changes to the [ST-segment](#) recorded on a [12-](#)

¹⁸ The VHA Facility Complexity Model categorizes medical facilities based on patient population, clinical services offered, educational and research missions, and administrative complexity. Complexity Levels include 1a, 1b, 1c, 2, or 3, with Level 1a facilities being the most complex and Level 3 facilities being the least complex.

¹⁹ Merck Manual, *Acute Coronary Syndromes (Heart Attack; Myocardial Infarction; Unstable Angina)*. <https://www.merckmanuals.com/home/heart-and-blood-vessel-disorders/coronary-artery-disease/acute-coronary-syndromes-heart-attack-myocardial-infarction-unstable-angina>. (The website was accessed on February 3, 2020.)

²⁰ Cleveland Clinic, *CAD: Acute Coronary Syndrome*. <https://my.clevelandclinic.org/health/diseases/16713-cad-acute-coronary-syndrome>. (The website was accessed on May 4, 2020.)

[lead EKG](#) that indicate the lack of blood flow to the heart has resulted in injury or death to the heart tissue.²¹ Approximately 25 to 40 percent of patients presenting with myocardial infarction are diagnosed with a STEMI.²² If left untreated, patients with STEMI have a significant decrease in their chances of survival.²³

[Percutaneous coronary intervention](#) (PCI) is the preferred treatment for STEMI patients to open coronary arteries that are blocked or narrowed in order to improve blood flow to the heart.²⁴ Not all hospitals have PCI capabilities. Patients that arrive at a non-PCI-capable hospital must be transferred to a PCI-capable facility.²⁵ The American College of Cardiology Foundation/American Heart Association recommends that patients with suspected diagnosis of STEMI who present to hospitals without PCI capabilities receive a rapid evaluation and transport to a facility capable of treating coronary artery blockages through PCI.²⁶

Interfacility Transfer

Interfacility transfer is the “transfer or physical movement of a patient from one facility to another” to access required [specialty care](#) or other services.²⁷ VHA policy acknowledges that an interfacility transfer is often necessary but also “exposes the patient to risks, while in some cases,

²¹ Merck Manual, *Acute Coronary Syndromes (Heart Attack; Myocardial Infarction; Unstable Angina)*. <https://www.merckmanuals.com/home/heart-and-blood-vessel-disorders/coronary-artery-disease/acute-coronary-syndromes-heart-attack-myocardial-infarction-unstable-angina>. (The website was accessed on February 3, 2020.)

²² Patrick O’Gara, et al., “2013 American College of Cardiology Foundation/American Heart Association Guideline (ACCF/AHA) for the Management of ST-Elevation Myocardial Infarction,” *Journal of the American College of Cardiology* 61, no. 4 (2013): e78-140. http://www.onlinejacc.org/content/61/4/e78?_ga=2.77559957.121052107.1579096747-1829073168.1576550868. (The website was accessed on January 15, 2020.)

²³ The Washington Manual of Medical Therapeutics, *ST-Segment Elevation Myocardial Infarction*. https://www.unboundmedicine.com/washingtonmanual/view/Washington-Manual-of-Medical-Therapeutics/602177/all/ST_Segment_Elevation_Myocardial_Infarction. (The website was accessed on April 17, 2020.)

²⁴ Tracy Y. Wang et al., “Association of Door-In to Door-Out Time with Reperfusion Delays and Outcomes Among Patients Transferred for Primary Percutaneous Coronary Intervention,” *Journal of the American Medical Association* 305, no. 24 (June 2011): 2540-2547. <https://pubmed.ncbi.nlm.nih.gov/21693742/>. (The website was accessed March 23, 2020.) This article requires a subscription for access.

²⁵ National Heart, Lung, and Blood Institute, *Percutaneous Coronary Intervention*. <https://www.nhlbi.nih.gov/health-topics/percutaneous-coronary-intervention>. (The website was accessed on January 29, 2020.)

²⁶ O’Gara, et al. “2013 American College of Cardiology Foundation/American Heart Association Guideline (ACCF/AHA) for the Management of ST-Elevation Myocardial Infarction.”

²⁷ Emergency Nurses Association, *Interfacility Transfer of Emergency Care Patients*. https://www.ena.org/docs/default-source/resource-library/practice-resources/position-statements/facilitatingtheinterfacilitytransfer.pdf?sfvrsn=d3d9c8f4_14. (The website was accessed on March 23, 2020.)

failing to transfer a patient may be equally risky.”²⁸ Care must be taken to ensure that interfacility transfers are conducted by qualified healthcare professionals in a manner that maintains the appropriate level of care required for the patient.²⁹ VA medical centers use community [emergency medical services](#) (EMS) with specialized vehicles and [paramedic](#) staff to transport patients between hospitals. If additional resources are needed, VA medical centers transferring patients are responsible for providing VA healthcare personnel to accompany patients to the receiving destination.³⁰

Prior OIG Reports

The OIG published a report pertaining to the facility and this same topic within the last three years. The report, *Comprehensive Healthcare Inspection Program Review of the Robert J. Dole VA Medical Center, Wichita, Kansas*, was published in 2018 and included a recommendation that the Facility Director ensure interfacility patient transfer data are collected, reported, and analyzed as a part of the facility’s quality management program and monitors compliance. As of September 5, 2018, this recommendation was closed.³¹

Allegations and Related Concerns

In late 2019, the OIG hotline team received a complaint from the OIG Comprehensive Healthcare Inspection Program inspectors regarding a patient who was evaluated in the facility’s Emergency Department for ACS symptoms and subsequently died after an interfacility transfer to a non-VA community hospital (community hospital). Specifically, the complainant alleged that coordination and quality of care issues contributed to the delay of an interfacility transfer for the patient and led to the patient’s death.

The OIG identified related concerns regarding the facility’s interfacility transfer process including communication among facility staff and 911 EMS dispatch, leadership, and quality management oversight, including the collection and evaluation of transfer data.

²⁸ VHA Directive 1094, *Inter-Facility Transfer Policy*, January 11, 2017.

²⁹ VHA Directive 1094.

³⁰ VHA Directive 1094. Facility Policy ED-07, *Emergency Department Interfacility Transfers*, March 17, 2020. Additional staff could include VA physicians, registered nurses, respiratory therapists, or others needed for advanced monitoring and treatment of the patient during transfer.

³¹ VA Office of Inspector General, *Comprehensive Healthcare Inspection Program Review of the Robert J. Dole VA Medical Center, Wichita, Kansas*, Report No. 17-01748-82, February 6, 2018. The Comprehensive Healthcare Inspection Program reviews key clinical and administrative processes and are performed approximately every three years for each facility.

Scope and Methodology

The OIG initiated a healthcare inspection on January 6, 2020, and conducted a site visit February 25–27, 2020. The OIG team interviewed the facility’s Chief of Staff; Associate Director, Patient Care Services; Associate Chief of Staff, Medicine; Chiefs of Emergency Department, Cardiology, and Health Administrative Service (HAS), former Chief, Quality Management; former Emergency Department Nurse Manager; former Patient Safety Manager; a staff cardiologist; as well as Emergency Department, HAS, and other relevant staff.³²

The OIG team reviewed the patient’s electronic health record (EHR) for the 2005–2019 time frame, relevant Veterans Health Administration (VHA) and facility policies and procedures, the facility’s service agreement between Cardiology and Emergency Departments, staffing schedules, relevant administrative reports, committee minutes, email communication, an EMS 911 dispatch recording and patient care record, and medical literature.³³

In the absence of current VA or VHA policy, the OIG considered previous guidance to be in effect until superseded by an updated or recertified directive, handbook, or other policy document on the same or similar issue(s).

The OIG substantiates an allegation when the available evidence indicates that the alleged event or action more likely than not took place. The OIG does not substantiate an allegation when the available evidence indicates that the alleged event or action more likely than not did not take place. The OIG is unable to determine whether an alleged event or action took place when there is insufficient evidence.

Oversight authority to review the programs and operations of VA medical facilities is authorized by the Inspector General Act of 1978, Pub. L. No. 95-452, §7, 92 Stat 1105, as amended (codified at 5 U.S.C. App. 3). The OIG reviews available evidence to determine whether reported concerns or allegations are valid within a specified scope and methodology of a healthcare inspection and, if so, to make recommendations to VA leaders on patient care issues. Findings and recommendations do not define a standard of care or establish legal liability.

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

³² The former Chief, Quality Management, former Emergency Department Nurse Manager, and former Patient Safety Manager were available for interviews as they had moved to other positions within the facility at the time of the OIG interviews.

³³ Service Agreement Between Cardiology and Emergency Department, July 28, 2017.

Patient Case Summary

The patient, who was in their 70s, had a history of high blood pressure and [coronary artery disease](#) with two [coronary stents](#).³⁴ In early 2019 in the afternoon (1:45 p.m.), the patient walked in to the facility's Emergency Department and complained of chest pain since the previous night.³⁵ An Emergency Department nurse (nurse 1) [triaged](#) the patient at 1:48 p.m. and documented that the patient described squeezing chest pain that traveled to the left arm accompanied by sweating, symptoms similar to a prior heart attack in 2004. The patient had unsuccessfully tried to relieve the chest pain with an antacid and [nitroglycerin](#) and had taken an aspirin earlier that day.

Nurse 1's examination noted the patient was awake and alert, but appeared pale and [diaphoretic](#). Nurse 1 assigned the patient a triage category level 2 and handed off care of the patient to a second Emergency Department nurse (nurse 2).³⁶ Nurse 2 initiated the facility's ACS protocol.³⁷ Nurse 2 notified the Emergency Department physician (physician 1) of the patient six minutes after arrival (1:51 p.m.). The first EKG was completed seven minutes after arrival (1:52 p.m.).

An Emergency Department nurse practitioner initially assessed the patient; physician 1 assumed care of the patient and was at the patient's bedside at 2:10 p.m., 25 minutes after the patient's arrival. Physician 1 assessed that the initial EKG showed cardiac [ischemia](#) and had changed compared to a previous EKG that was conducted in 2015. The patient was treated with oxygen, aspirin, nitroglycerin, [heparin](#), [morphine](#), and [intravenous fluids](#).

Nurse 2 documented notifying physician 1 that the patient's condition was deteriorating 31 minutes after arrival (2:16 p.m.) with worsening pain and diaphoresis. A second EKG was completed 39 minutes after arrival (2:24 p.m.) and given to physician 1. Physician 1 consulted the facility cardiologist (cardiologist) 44 minutes after arrival (2:29 p.m.). The cardiologist

³⁴ The OIG uses the singular form of they in this instance for privacy purposes.

³⁵ Joshua P. Loh, et al., "First Medical Contact-to-Device Time and Heart Failure Outcomes Among Patients Undergoing Primary Percutaneous Coronary Intervention," *Circulation: Cardiovascular Quality and Outcomes* 11 (2018): 1-10. Also known time of "first medical contact," patient arrival time is defined as the time from first contact "with an ambulance paramedic, emergency department door, or medical triage, whichever [is] earliest." For the purpose of this report, the OIG used the patient's arrival time in the Emergency Department as the time of first medical contact. <https://www.ahajournals.org/doi/pdf/10.1161/CIRCOUTCOMES.118.004699>. (The website was accessed on April 7, 2020.)

³⁶ Facility Policy NE-11, *Emergency Department Nursing Triage Policy*, July 27, 2018. A patient assigned a level two triage category has a "potentially life-threatening emergency" and their condition will deteriorate and become unstable if they are not treated within 15-30 minutes of arrival to the Emergency Department. Examples of level two triage patients include patients with myocardial infarctions, stroke, drug overdose, and severe injuries.

³⁷ Facility Standard Operating Procedure/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017, outlined a standard operating procedure for identification and treatment of patients with acute myocardial infarction.

advised that due to EKG findings and the lack of the patient's response to treatment provided in the Emergency Department, physician 1 should transfer the patient to a community hospital capable of PCI as this procedure was not available at the facility. A second Emergency Department physician (physician 2) who assisted in the patient's care contacted the cardiologist 51 minutes after arrival (2:36 p.m.) when additional EKGs showed further changes concerning for [posterior STEMI](#); the cardiologist advised that the Emergency Department perform a [posterior EKG](#), recommended "[i]mmediate transfer to a PCI capable facility," and went to the Emergency Department to see the patient. The cardiologist reviewed the EKGs and agreed the findings were "suggestive of posterior STEMI."

Physician 1 made two calls to the community hospital to initiate transfer of the patient. The first call was to contact the patient's personal community cardiologist; physician 1 did not document the time this call was made nor speaking to the patient's personal community cardiologist. The second call, placed 50 minutes after arrival (2:35 p.m.), was to reach the community hospital's on-call cardiologist who was admitting STEMI patients. EHR transfer documents indicated the community hospital's on-call cardiologist accepted the patient and agreed to the transfer 62 minutes after arrival (2:47 p.m.).

The patient experienced a [cardiac arrest](#) 64 minutes after arrival (2:49 p.m.) and became unresponsive. The code blue (code) protocol was initiated, and Emergency Department staff administered [cardiopulmonary resuscitation](#). Physician 2 [intubated](#) the patient. Cardiac [defibrillation](#) and intravenous medications were administered for abnormal heart rhythms. Physician 1 informed the family about the patient's condition and that the patient was not likely to survive the situation. The family wanted the medical team to continue efforts to resuscitate and transfer the patient.

An HAS staff member called EMS 911 dispatch 67 minutes after arrival (2:52 p.m.) to request an emergent transport of the patient from the facility's Emergency Department to the community hospital. EMS reached the facility 76 minutes after the patient's arrival (3:01 p.m.) and requested an additional critical care paramedic because of the patient's serious clinical condition. The critical care paramedic arrived at 3:31 p.m. and found the patient was not yet stable enough for transfer.

While the patient remained critically ill requiring intravenous medication to maintain normal heart rhythm, pulse, and blood pressure, Emergency Department staff and the critical care paramedic determined the patient was stable enough to transfer 155 minutes after arrival (4:20 p.m.).

Upon leaving the facility's Emergency Department, the patient's heart rhythm again became abnormal; EMS staff reinitiated cardiopulmonary resuscitation and defibrillation while en route to the community hospital. The patient died shortly after arrival to the community hospital's Emergency Department. The PCI procedure was not performed.

Inspection Results

1. Allegation: Mismanagement of the Patient's Acute Coronary Syndrome

The OIG substantiated that coordination and quality of care issues in the management of the patient who presented to the facility's Emergency Department with ACS symptoms contributed to the patient's death. Specifically, physician 1 mismanaged the care provided to the patient by failing to initiate a timely interfacility transfer for PCI.

A timeline of the patient's Emergency Department visit is included to illustrate the chronology of events (see [appendix A](#)).

Initial Triage and Management of the Patient

The patient presented to the facility's Emergency Department at 1:45 p.m. with symptoms of ACS.

Facility policy requires that nursing staff rapidly assess all patients presenting to the Emergency Department, assign an appropriate triage category and place the patient in an appropriate treatment location.³⁸ The facility's Emergency Department protocol for the initial management of patients presenting with symptoms of ACS outlined a goal for the completion of an EKG within 10 minutes of arrival, a nursing and physician assessment within 15 minutes of arrival, and initiation of treatment within 20 minutes of arrival.³⁹

The OIG reviewed EHR documentation of the patient's triage and initial ACS care. Nurse 1 triaged the patient and assigned a triage category level 2. Nurse 1 immediately brought the patient to an Emergency Department room and notified physician 1 within six minutes of the patient's arrival. The first EKG was completed at 1:52 p.m. and was consistent with ischemia. The OIG identified that the nurse practitioner initiated treatment of the patient and then turned over care to physician 1. The first time that physician 1 was noted to be at the patient's bedside to evaluate the patient was at 2:10 p.m.

³⁸ Facility Policy NE-11. Triage is a rapid assessment that is performed by an Emergency Department nurse and includes an "assessment of airway, breathing, circulation, and may include vital signs." Once the assessment is complete, the nurse assigns the patient an acuity category, ranging from level 1 (most severe) to level 5 (least severe).

³⁹ Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017.

During interviews with the OIG, physician 1 could not recall the exact time that the patient's care was transferred from the nurse practitioner to physician 1. Physician 1 told the OIG that prior to seeing the patient, both providers reviewed the patient's initial EKG together.

The OIG concluded that Emergency Department staff appropriately managed the patient's initial presenting symptoms in accordance with facility policy and ACS protocol.

Availability of Percutaneous Coronary Intervention at the Facility

The OIG found that PCI services were offered at the facility but limited to scheduled procedures and unavailable for high-risk ACS and STEMI patients despite guidance in a service agreement between the Cardiology and Emergency Departments that suggested treatment for STEMI patients was available. The service agreement between Cardiology and Emergency Departments in place at the time of the patient's visit provided guidance that Emergency Department physicians were to contact the facility cardiologist on-call as needed, or in cases of STEMI, to check the availability of PCI at the facility during business hours.⁴⁰

At 2:29 p.m., the cardiologist documented being contacted by physician 1, who relayed information about the patient's presenting symptoms of chest pain, diaphoresis, and EKG changes. The cardiologist documented recommending physician 1 transfer the patient to a PCI-capable community hospital.

During interviews with the OIG, physician 1 could not recall if the option to take the patient for PCI at the facility was discussed, or if the call to the cardiologist was about the need to transfer the patient. The cardiologist told the OIG that the patient was considered high risk and would require transfer to a PCI-capable community hospital. The cardiologist and Chief, Cardiology Service reported that [interventional cardiologists](#) were not employed full time at the facility. The OIG reviewed the schedule provided by cardiology staff and confirmed that an interventional cardiologist was not on-site at the time the patient presented to the facility's Emergency Department.

During interviews with the OIG, the cardiologist and Chief, Cardiology Service stressed that patients who presented to the Emergency Department with STEMI would always require transfer to a PCI-capable community hospital for treatment. Several Emergency Department staff confirmed that the facility practice was to transfer all STEMI patients to a PCI-capable community hospital. The Associate Chief of Staff, Medicine Service, and Chiefs of Cardiology and Emergency Department confirmed that Emergency Department physicians do not have to contact the facility's on-call cardiologist prior to initiating transfer of a patient for PCI.

⁴⁰ Service Agreement Between Cardiology and Emergency Department, July 28, 2017.

The OIG acknowledged that physician 1 followed the facility service agreement when contacting the cardiologist. However, the OIG identified that the service agreement was contrary to the generally accepted facility practice, creating concern that contacting the on-call cardiologist is an unnecessary step if the facility is unable to provide PCI for STEMI patients presenting to the Emergency Department. The facility service agreement was updated in approximately two months after the patient's death and the guidance that Emergency Department providers contact the on-call facility cardiologist to determine availability of PCI at the facility was removed.

Failure to Ensure a Timely Transfer

The OIG determined that the facility's failure to meet its established STEMI time goals contributed to the patient's death.

The facility's ACS protocol identified a goal of less than 30 minutes from the time a STEMI patient arrived and departed from the Emergency Department to go to a PCI-capable facility.⁴¹

The OIG reviewed the patient's EHR and determined that physician 1's first call to the cardiologist occurred 44 minutes after the patient's arrival to the Emergency Department (see figure 1). Nurse 2 notified physician 1 three times during this period of the patient's worsening condition. Three EKGs completed prior to physician 1's first contact with the cardiologist were abnormal and had changes consistent with possible posterior STEMI.

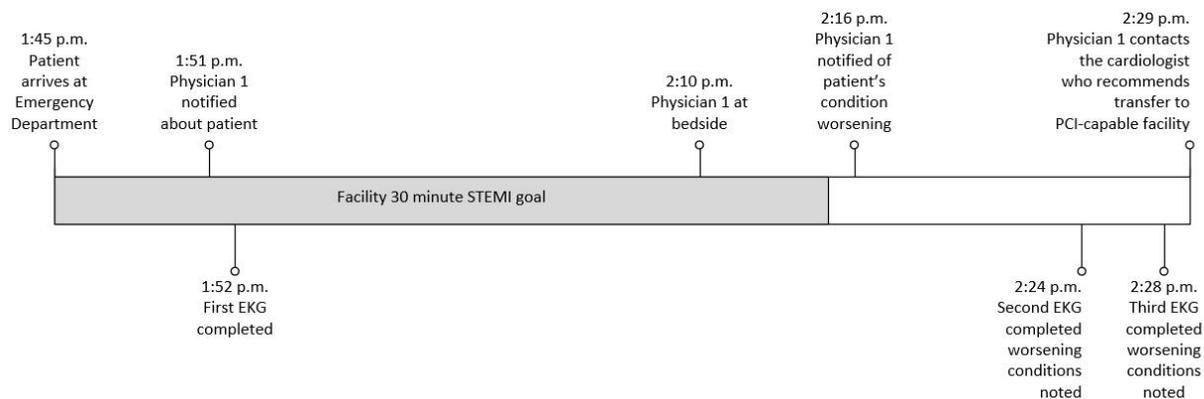


Figure 1. Timeline from the patient's Emergency Department arrival to first contact with the cardiologist
Source: VA OIG analysis of patient EHR

The OIG found that physician 1 documented being advised by the cardiologist during the 2:29 p.m. contact that the facility did not have the ability to perform PCI and to immediately transfer the patient to a PCI-capable facility. Physician 1 made two calls to the community hospital.

⁴¹ Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017.

During the first call, made to speak with the patient’s private cardiologist, physician 1 was unable to make direct contact and left a call-back number. Physician 1 told the OIG that the community hospital process was to page providers and relay the requesting physician’s call-back number, and that the patient’s private cardiologist did not return the call. The second call was made to report that the patient had developed a posterior STEMI. The community hospital paged the on-call cardiologist who accepted the patient for transfer (see figure 2).

The cardiologist documented going to the Emergency Department after receiving a phone call from physician 2 to discuss the patient’s EKG changes. The cardiologist reviewed the EKG and confirmed the posterior STEMI and again recommended “[i]mmediate transfer to a PCI capable facility.” Eleven minutes later, a seventh EKG showed an “acute MI [myocardial infarction]/STEMI.” Nurse 2 documented the patient was in cardiac arrest and the code protocol was initiated. EHR transfer documents indicate the community hospital’s on-call cardiologist accepted the patient and agreed to the transfer at 2:47 p.m.

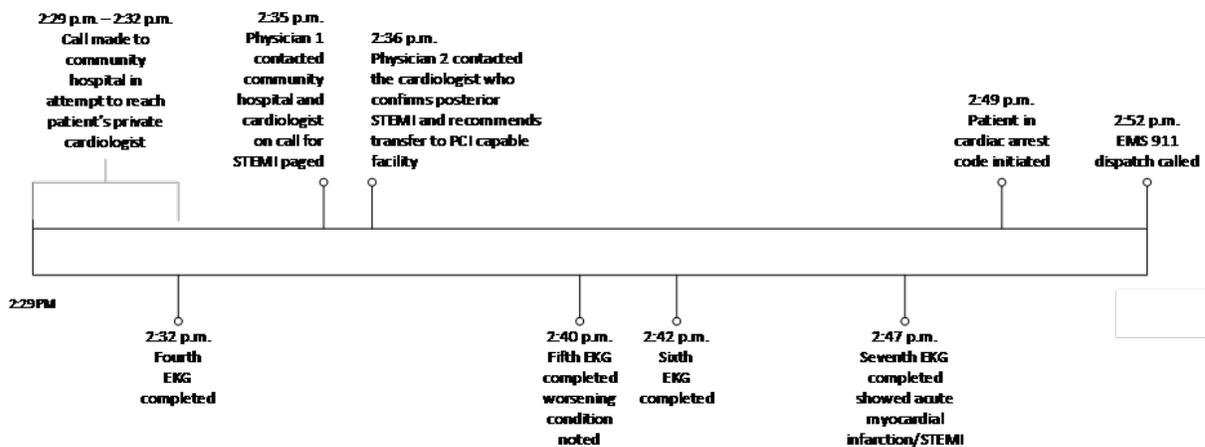


Figure 2. Timeline of events from Physician 1’s first call to the community hospital to the HAS call to EMS 911 dispatch.

Source: VA OIG analysis of patient EHR

The OIG reviewed EHR documentation of the code, interviewed Emergency Department staff and members of the code team, and determined that staff provided appropriate and effective treatment to the patient during the code.

During interviews with the OIG, physician 1 confirmed being aware of the facility STEMI transfer requirements but could not remember the discussion with the cardiologist or timeline of events related to the decision to transfer the patient to a community hospital. Emergency Department nursing staff stated that physician 1 was repeatedly notified of the patient’s worsening condition and the need to transfer the patient for PCI.

The OIG concluded that failure to transfer the patient for PCI within 30 minutes limited the patient's chances for the best possible outcome. The patient's symptoms upon presentation to the Emergency Department warranted prompt action by physician 1. However, physician 1 failed to act urgently on the patient's deteriorating condition. The OIG found that physician 1 waited to call the cardiologist for over 40 minutes after the patient's arrival to the Emergency Department, which further delayed the patient's care.

The OIG was unable to determine the reason for physician 1's delay in transferring the patient to a PCI-capable facility due to the inability of physician 1 to recall details one year after the event occurred.

Delay in Emergency Medical Services Transport

The OIG determined that the patient's instability at the time EMS arrived at the facility further delayed the patient's emergent transport to the community hospital; however, this delay was unavoidable.

VHA requires that facilities safeguard patient safety by ensuring patient stability prior to transfer to a community hospital.⁴²

At 2:52 p.m., an HAS staff member contacted EMS 911 dispatch to request an emergent EMS transport for the patient to the community hospital.⁴³ EMS arrived at the facility at 3:01 p.m. to transport the patient and documented the patient was experiencing "intermittent periods of cardiac arrest." EMS staff contacted an additional critical care paramedic to assist with the transport due to the patient's serious condition. The critical care paramedic arrived at the facility at 3:31 p.m. The OIG reviewed documentation provided by EMS and found that after consultation with physician 2, EMS staff agreed to transport the patient once the patient became stable. The patient continued to code intermittently until 4:20 p.m. when EMS took over patient care and left the Emergency Department.

The OIG concluded that the Emergency Department staff did not transfer patient care to EMS staff for 1 hour and 19 minutes after EMS's arrival. However, this delay in transfer was due to the facility's Emergency Department staff following VHA policy, which requires that the patient is stable prior to transfer.

⁴² VHA Directive 1094.

⁴³ The facility's practice is to contact the EMS 911 dispatch operator to arrange all interfacility transfers to community hospitals.

Related Concern—Interfacility Transfer Process

The OIG found that the facility lacked a written policy specifying a standardized process to request an interfacility transfer of patients, and Emergency Department staff used inconsistent terminology when describing the type of EMS response needed to ensure the EMS 911 dispatch could arrange the correct emergent transport.

VHA requires that facilities have a written policy “that ensures the safe, appropriate, orderly, and timely transfer of patients.”⁴⁴

During interviews, Emergency Department nursing staff and HAS staff described that their practice was for nursing staff to verbally request HAS to contact EMS 911 dispatch when an interfacility transfer was needed. Emergency Department and HAS leaders and staff described three different EMS response types that could be requested:

- Emergent (red lights/sirens)
- Non-emergent (regular transport)
- Critical care paramedic or specials (specialized care services needed to support the patient during transport)⁴⁵

While some staff communicated that the phrase “red lights and sirens” identified the need for an emergent transfer, other staff used the terms “emergent,” “red lights and sirens,” and “critical care” interchangeably. In addition, one facility staff member described understanding that a request for red lights and sirens would indicate a critical care paramedic would be dispatched, while other staff reported having to request a critical care paramedic for a patient who required special needs, such as intravenous fluids or other specialty equipment during transport.

During interviews with the OIG, facility leaders and staff expressed opinions that HAS did not communicate to EMS 911 dispatch that red lights and sirens were needed during the call requesting the patient’s emergent transfer. After a review of the transcript of the audio recording of the 911 dispatch call, the OIG confirmed that the HAS staff member’s request for an emergent transfer with red lights and sirens reflected the patient’s needs at the time the call was made.

Emergency Department and HAS leaders told the OIG they recalled having a facility policy or documentation that outlined the process for transferring patients. An HAS staff member also recalled having such policies in the past but believed they needed to be updated and clarified. Additionally, HAS staff reported not receiving any formal training on a standardized patient

⁴⁴ VHA Directive 1094.

⁴⁵ In January 2019, EMS implemented critical care paramedic services for patients requiring specialized care during transport, such as intravenous drips, available from 9:00 a.m.–9:00 p.m.

transfer process and described having learned how to request EMS transport through on-the-job work experience.

The OIG reviewed the facility's Hospital Admissions policy and ACS protocol to determine whether there was clear guidance outlined for facility staff to request EMS.⁴⁶ The facility's Hospital Admissions policy established the physician as having responsibility to facilitate a patient's care at another VA medical center or a community hospital when the facility could not provide the needed care.⁴⁷ The ACS protocol established goals for timely care for STEMI patients.⁴⁸

The OIG determined that neither the Hospital Admissions policy nor ACS protocol included a description of the types of EMS responses available for interfacility patient transfers. Although the OIG did not identify that an incorrect EMS request contributed to a transfer delay for the patient, the lack of a facility policy outlining the facility's standardized transfer process is a vulnerability for the facility as miscommunication of needed services could result in a delay, improper EMS response, and adverse patient outcomes.

Unclear Communications during Interfacility Transfers

At the conclusion of the site visit, the OIG expressed concerns to the Facility Director of the unclear communication among staff during the interfacility transfer process, which may prevent the safe, timely transfer of patients. The OIG also identified concerns related to the EMS radio communication with the Emergency Department staff, and unclear signage throughout the facility after the Emergency Department relocation.⁴⁹ The OIG requested that the Facility Director immediately address identified issues and provide the OIG with a plan for and verification of corrective actions taken to resolve these concerns.

⁴⁶ Facility Policy CPC-13-14, *Hospital Admissions*, March 26, 2013. This policy was in effect at the time of the event and has been rescinded and replaced by Facility Policy HOS-04, *Hospital Admissions*, May 30, 2019. The updated policy similarly lacked language regarding clear guidance for facility staff to request EMS; Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017.

⁴⁷ Facility Policy CPC-13-14, *Hospital Admissions*, March 26, 2013. This policy was in effect at the time of the event and has been rescinded and replaced by Facility policy HOS-04, *Hospital Admissions*, May 30, 2019. The updated policy contained the same or similar language regarding the physician having responsibility to facilitate a patient's care at another VA medical center or a community hospital when the facility cannot provide the needed care.

⁴⁸ Facility SOP/589A7, *Acute Coronary Syndrome (ACS) Guidelines Standard Operating Procedure (SOP) in the Emergency Department*, October 5, 2017.

⁴⁹ Facility staff reported to the OIG having difficulty communicating via radio with EMS staff transporting patients to the facility and that signage inside and outside the facility directing patients and EMS to the Emergency Department was inadequate. These concerns were related to the relocation of the Emergency Department to a new location in January 2020.

In April 2020, facility leaders provided the OIG with a new Emergency Department Interfacility Transfers policy, clarification on the EMS radio communication, and documentation to support Emergency Department physician and nursing staff training on the new policy and EMS radio communication. Facility leaders also reported the installation of directional signage to the Emergency Department.

2. Related Concern: Leadership and Quality Management Oversight

The OIG acknowledged that the facility completed a root cause analysis, code review, and initiated peer reviews after the death of the patient, but the OIG found that the facility did not determine what contributing factors led to the delay in the patient's interfacility transfer to the community hospital or take actions to improve the emergent EMS transfer process.⁵⁰ In addition the facility did not complete an institutional disclosure and failed to collect, monitor, and evaluate interfacility transfer data as part of their quality management program.⁵¹

Root Cause Analysis

VHA implemented a patient safety program in the late 1990s and published the VHA Patient Safety Improvement Handbook to provide guidance to staff on preventing adverse events and conducting a root cause analysis.⁵² The goal of VHA's Patient Safety Program is to prevent harm to patients by having staff report adverse events, review and identify underlying root causes of the events, and implement the changes needed to reduce the likelihood of recurrence.⁵³

VHA policy states that a credible root cause analysis must include participation by facility leadership and not leave questions unanswered. A thorough root cause analysis determines factors most likely associated with the event, identifies whether system issues contributed to the event, and identifies potential process or system improvement, which would decrease the reoccurrence of similar events in the future.⁵⁴

Soon after the patient's death in 2019, the Facility Director chartered a root cause analysis team to determine the root cause and contributing factors of the delay in the transfer of the patient to

⁵⁰ VHA Handbook 1050.01, *VHA National Patient Safety Improvement Handbook*, March 4, 2011. VHA defined a root cause analysis as a process for identifying the contributing causes associated with adverse events or close calls.

⁵¹ VHA Directive 1004.08, *Disclosure of Adverse Events to Patients*, October 31, 2018. VHA defines institutional disclosure as "a formal process by which VA medical facility leader(s) together with clinicians and others as appropriate, inform the patient or the patient's personal representative that an adverse event has occurred during the patient's care that resulted in or is reasonably expected to result in death or serious injury."

⁵² VHA Handbook 1050.01. VHA defines adverse events as harmful occurrences directly associated with facility care or services.

⁵³ VHA Handbook 1050.01.

⁵⁴ VHA Handbook 1050.01.

the community hospital. The OIG determined that the facility did not complete a thorough and credible root cause analysis by not assessing the management of the patient's care prior to the code.

Interfacility Transfer Process

The OIG reviewed the actions that the facility took to address the transfer process. In spring 2019, the facility's Emergency Department Nurse Manager submitted an email to the patient safety staff on behalf of the Chief, HAS, Emergency Department physician and nursing leaders, recommending that HAS staff continue to initiate the call to EMS for all interfacility transfers. Two months later, the Associate Director, Patient Care Services approved the request. The Chief of Staff did not provide a response.⁵⁵

The OIG found that the facility did not further monitor or evaluate the interfacility transfer process. An ongoing evaluation of the interfacility patient transfer process would have afforded the opportunity to identify inconsistencies, recommend actions, and implement improvements.

Cause of Interfacility Transfer Delay—Timeliness of Transfer

The Associate Director, Patient Care Services, and the Facility Director reported that after the OIG sent notification of the hotline inspection, they reviewed the root cause analysis and patient's care more closely and determined that the facility did not complete an evaluation of the delay of the patient's emergent interfacility transfer. The Associate Director, Patient Care Services indicated not having reviewed the EHR at the time of the patient's death and upon closer examination was disappointed in the Emergency Department staff's management of the patient's care and the lack of recognizing the emergent status. The Associate Director, Patient Care Services told the OIG that one week prior to the site visit, a request was made that the patient safety staff revisit the circumstances surrounding the patient's care.

The OIG concluded that facility did not complete a thorough and credible root cause analysis of the adverse event. By omitting a review of the management of the patient's Emergency Department care prior to the code, the root cause analysis team did not determine the causes most likely to have negatively affected the timeliness of the patient's transfer. Without a thorough and credible analysis, the facility was unable to identify improvements for processes most likely associated with the patient's delay in the emergent interfacility transfer and may increase the likelihood of reoccurrence of similar delays in the future.

⁵⁵ VHA Handbook 1050.01. The facility uses the software WebSPOT to track and evaluate the corrective actions for success of achieving outcomes in the root cause analysis.

Cardiopulmonary Resuscitation—Review of Code Event

The OIG determined that the Critical Care Committee reviewed the code event but did not address a delay in the patient's care by physician 1. Additionally, the facility's former Chief, Quality Management was not a member of the Critical Care Committee and did not address a concern with obtaining EMS during the patient's emergent interfacility transfer.

VHA policy requires that the facility has a Cardiopulmonary Resuscitative Committee that ensures the review of each cardiopulmonary resuscitative episode of care, takes action to improve identified problems, and reviews the effectiveness of actions taken. The Cardiopulmonary Resuscitative Committee's review includes (1) identification of errors or deficiencies in technique or procedures, (2) equipment availability or malfunction of equipment, and (3) clinical or patient care issues that may have contributed to the occurrence of a cardiopulmonary event.⁵⁶

The facility policy designates its Critical Care Committee to review and evaluate each code event to ensure cardiopulmonary resuscitation protocols were followed and if issues are identified, makes recommendations for improvement to responsible departments and the Medical Executive Committee.⁵⁷ Facility policy requires membership on the Critical Care Committee to include Intensive Care Unit, Emergency Department, Operating Room, Specialty Care, and Quality Management members.

The OIG reviewed code documentation and Critical Care Committee meeting minutes for two months in spring 2019 and found that the Critical Care Committee reviewed the patient's code event; however, the Critical Care Committee did not address a delay in the patient's care and did not make recommendations or ensure actions were implemented relative to avoiding future delays.

The Chairperson, Critical Care Committee told the OIG that the Critical Care Committee reviewed the patient's code event and completed the actions from the root cause analysis. These actions included ensuring that the Emergency Department crash cart had necessary medications and supplies and working with Education Service to establish Emergency Department mock codes. When asked about the Critical Care Committee's review of a delay in the patient's care, the Chairperson provided perspective about physician 1's actions to initiate an interfacility transfer and the facility's transfer practices for patients who presented with a STEMI, but did not indicate that the Critical Care Committee discussed the delay in care.

⁵⁶ VHA Directive 1177, *Cardiopulmonary Resuscitation*, August 28, 2018. Facility Critical Care Committee Specialty Care Charter Fiscal Year 2018, January 23, 2018.

⁵⁷ Bylaws and Rules of the Medical Staff of Veterans Health Administration (VHA), Robert J. Dole VAMC (RJD VAMC) Wichita, Kansas. The Medical Executive Committee serves as executive committee of the medical staff. Facility Critical Care Committee Specialty Care Charter Fiscal Year 2018.

VHA policy requires facility quality managers to be members of the Cardiopulmonary Resuscitative Committee or its equivalent and, at the direction of the Cardiopulmonary Resuscitative Committee Chairperson, to have responsibility for addressing problems in obtaining the assistance of EMS or use of the 911 call system.⁵⁸

During interviews, the former Chief, Quality Management reported not being a member of the Critical Care Committee and was unaware of having responsibility to address delays and problems in obtaining assistance of EMS in accordance with VHA policy. The former Chief, Quality Management explained that a patient safety staff member represented quality management on the Critical Care Committee and would have the responsibility to identify and address any concerns with EMS patient transfers. The patient safety staff member reported attending the Critical Care Committee and having responsibility to bring information about code events to the Critical Care Committee, but was unaware of any Critical Care Committee review of the patient's episode of care. The Chairperson, Critical Care Committee reported that the Critical Care Committee had not addressed issues with or reviewed data about EMS emergent transport.

The OIG did not find evidence that the former Chief, Quality Management or patient safety staff member attended Critical Care Committee meetings for two months in spring 2019, or that concerns with obtaining EMS transport for emergent transfers were reviewed at the Critical Care Committee.

The OIG concluded that although the Critical Care Committee reviewed the patient's code event, there were no recommendations or actions taken regarding a delay in the patient's care and obtaining the correct EMS transport. The failure to address a delay in the patient's care and obtaining EMS transport did not afford the opportunity to identify contributing factors and implement improvements to prevent future occurrence of similar events.

Peer Review

Peer review is a confidential process to evaluate the performance of health care professionals. It is intended to be non-punitive and "...can result in both short-term and long-term improvements in patient care by revealing areas for improvement in the provision of health care of one or multiple clinicians."⁵⁹

In 2020, after the OIG notification of the hotline inspection, the facility completed peer reviews of five physicians and nurses who provided care to the patient in the Emergency Department.

⁵⁸ VHA Directive 1177.

⁵⁹ VHA Directive 1190, *Peer Review for Quality Management*, November 21, 2018.

The OIG found that documentation of physician peer reviews did not include an evaluation of each individual physician's clinical decisions and actions for the care provided to the patient.

The primary goal of peer review is improvement in care provided to patients through a review of individual clinical decisions to determine whether the decisions and actions met the standard of care.⁶⁰ VHA requires screening of cases when patients experience care that has negative or unexpected consequences to determine if the care was appropriate; these cases are to be considered for peer review. VHA utilizes the services of an independent reviewer to assist in improving the peer review process; a facility may request this service.⁶¹

During interviews, the Chief of Staff reported requesting that peer reviews be completed in late 2019 or early 2020 after hearing about the root cause analysis. The Chief of Staff reported the peer reviews were completed by a provider in another VA medical center and that the reviews were very thorough. In accordance with VHA policy, the facility's Peer Review Committee evaluated the completed peer reviews in spring 2020 and determined no further actions were warranted.

The OIG found that the Facility Director initiated the peer reviews of the Emergency Department physicians and nurses almost one year after the patient's death. The OIG reviewed the completed peer reviews and determined that the peer reviewer's narrative included the same content for each Emergency Department physician despite each provider having a different level of involvement in the patient's care.

The OIG concluded the peer reviews were not initiated timely, the reviewer did not provide an individual assessment of the care provided by each physician, and the facility's Peer Review Committee took no action to obtain an individual assessment of the patient's care provided by each physician. Without timely individual reviews of the clinical decisions made by the Emergency Department physicians, facility leaders could not identify opportunities for immediate or long-term improvements in patient care.

Institutional Disclosure

The OIG determined that the facility did not provide an institutional disclosure to the patient's personal representative related to a delay in the patient's emergent transfer to the community hospital.

⁶⁰ VHA Directive 1190.

⁶¹ VHA Directive 1190.

VHA policy indicates that “when an adverse event has resulted in or is reasonably expected to result in death or serious injury, an institutional disclosure must be performed regardless of when the event is discovered.”⁶²

During interviews, the Chief of Staff and quality management staff members reported differing accounts about whether to complete an institutional disclosure related to the patient’s delay in emergent transfer. The Chief of Staff described that the facility practice was to have a discussion with the Associate Director, Patient Care Services, risk management staff, and quality management staff about a patient’s case and when warranted, having responsibility to communicate a disclosure to the patient or patient representative. The Chief of Staff confirmed that an institutional disclosure was not completed. The Chief of Staff also reported not being aware of the patient’s death until nine months after the patient’s demise and not being involved in a discussion related to an institutional disclosure after becoming aware of the patient’s death.. The former Chief, Quality Management reported not participating in a discussion regarding an institutional disclosure related to the patient’s adverse event, but stated that an institutional disclosure was not completed because the standard of care was met. A quality management staff member recalled having a discussion about an institutional disclosure with the Chief of Staff and the Chief of Staff decided the disclosure was not warranted because the facility did not do any harm.

The OIG concluded that the facility did not complete an institutional disclosure to the patient representative to express concern and provide an explanation of the delay in the patient’s emergent transfer to the community hospital. The intent of institutional disclosure is to fully inform patients and their families about all clinically significant facts related to harm caused by VA medical care and options to pursue potential compensation.⁶³ When institutional disclosures are not completed when required, patients and their families may inadvertently be denied their rights.

Interfacility Transfer Data and Evaluation

The OIG determined that facility leaders failed to collect, monitor, or evaluate interfacility transfer data as part of VHA’s quality management program.

VHA requires chiefs of staff and the associate directors of patient care services ensure “all transfers are monitored and evaluated as part of VHA’s quality management program.”⁶⁴

⁶² VHA Directive 1004.08. *Disclosure of Adverse Events to Patients*, October 31, 2018.

⁶³ VHA Directive 1004.08.

⁶⁴ VHA Directive 1094. *Inter-Facility Transfer Policy*, January 11, 2017.

The OIG requested information about the collection and evaluation of the facility's interfacility transfer data and the incorporation of the data into the facility's quality management program. The former Chief, Quality Management reported being aware of the requirement to collect and evaluate interfacility transfer data, but stated that data were not being collected. The Chairperson, Critical Care Committee, also reported not reviewing transfer delays.

The OIG concluded that the absence of interfacility transfer data limited the ability of leaders to analyze and identify transfer system issues.

Conclusion

The OIG substantiated that coordination and quality of care issues in the management of the patient who presented to the facility's Emergency Department with ACS symptoms contributed to the patient's death. Specifically, physician 1 mismanaged the care provided to the patient by failing to initiate a timely interfacility transfer for PCI.

The OIG found that the patient presented to the facility's Emergency Department at 1:45 p.m. with symptoms of ACS and Emergency Department staff appropriately managed the patient's initial presenting symptoms in accordance with facility policy and ACS protocol.

PCI services at the facility were offered but limited to scheduled procedures and were unavailable for high-risk ACS and STEMI patients. Physician 1 followed the facility service agreement when contacting the cardiologist. However, the OIG identified that the service agreement was contrary to the generally accepted practice, creating concern that contacting the on-call cardiologist is an unnecessary step if the facility is unable to provide PCI for STEMI patients presenting to the Emergency Department. The facility service agreement was updated in spring 2019 to remove the guidance that Emergency Department providers contact the on-call facility cardiologist to determine availability of PCI at the facility.

The OIG determined that the facility's failure to meet its established STEMI time goals contributed to the patient's death. The failure to transfer the patient for PCI within 30 minutes limited the patient's chances for the best possible outcome. The patient's symptoms upon presentation to the Emergency Department warranted prompt action by physician 1. However, physician 1 failed to act urgently on the patient's deteriorating condition. The OIG found that physician 1 waited to call the cardiologist for over 40 minutes after the patient's arrival, which further delayed the patient's care.

The OIG was unable to determine the reason for physician 1's delay in transferring the patient to a PCI-capable facility due to the inability of physician 1 to recall details one year after the event occurred.

The patient's instability at the time EMS arrived at the facility further delayed the patient's emergent transport to the community hospital. However, this delay was unavoidable due to

Emergency Department staff following VHA policy that required a patient be stable prior to transfer.

The OIG found that the facility lacked a written policy specifying a standardized process to request an interfacility transfer of patients, and Emergency Department staff used inconsistent terminology when describing the type of EMS response needed to ensure the EMS 911 dispatch could arrange the correct emergent transport.

Facility leaders and staff believed the information communicated to EMS 911 dispatch during the call requesting EMS for the patient's transfer did not relay the correct information that red lights and sirens were needed for the patient's emergent transfer. After a review of the transcript of the audio recording of the 911 dispatch call, the OIG confirmed that the HAS staff member's request for an emergent transfer with red lights and sirens reflected the patient's needs at the time the call was made. The OIG determined that neither the Hospital Admissions policy nor the ACS protocol included a description of the types of EMS responses available for interfacility patient transfers. Although the OIG did not identify that an incorrect EMS request contributed to a transfer delay for the patient, the lack of a facility policy outlining the facility's standardized transfer process is a vulnerability for the facility as miscommunication of needed services could result in a delay, improper EMS response, and adverse patient outcomes.

At the conclusion of the on-site visit, the OIG expressed concerns to the Facility Director of the unclear communication among staff during the interfacility transfer process, which may prevent the safe, timely transfer of patients. The OIG also identified concerns related to the EMS radio communication with the Emergency Department staff and unclear signage throughout the facility after the Emergency Department relocated.

The OIG found that the facility did not determine what contributing factors led to the delay in the patient's interfacility transfer to the community hospital or take actions to improve the emergent EMS transfer process.

The facility did not monitor or evaluate the interfacility transfer process. A closer review of the interfacility patient transfer process would have afforded the opportunity to identify inconsistencies, recommend actions, and implement improvements.

The OIG concluded that the facility did not complete a thorough and credible root cause analysis of the adverse event. By omitting a review of the management of the patient's Emergency Department care prior to the code, the root cause analysis team did not determine the causes most likely to have negatively affected the timeliness of the patient's transfer. Without a thorough and credible analysis, the facility was unable to identify process improvements most likely associated with the delay in the patient's emergent transfer, which may increase the likelihood of reoccurrence of similar delays in the future.

The Critical Care Committee reviewed the code event but did not address a delay in the patient's care by physician 1. Additionally, the facility's former Chief, Quality Management was not a member of the Critical Care Committee. The OIG did not find evidence that the former Chief, Quality Management or patient safety staff member attended two Critical Care Committee meetings in spring 2019 or identified a concern with obtaining the requested EMS transport for the patient's emergent transfer.

The OIG concluded that although the Critical Care Committee reviewed the patient's code event, there were no recommendations or actions taken regarding the reported concerns of a delay in the patient's care. The failure to address a delay in patient's care and obtaining the correct EMS transport did not afford the opportunity to identify contributing factors and implement improvements to prevent future occurrence of similar events.

The OIG found that the Facility Director initiated peer reviews of the Emergency Department physicians and nurses almost one year after the patient's death. Peer reviews were not initiated timely, the reviewer did not provide an individual assessment of the care provided by each physician, and the facility's Peer Review Committee took no action to obtain an individual assessment of the patient's care provided by each physician. Without timely individual reviews of the clinical decisions made by the Emergency Department physicians, facility leaders could not identify opportunities for immediate or long-term improvements in patient care.

The facility did not complete an institutional disclosure to the patient representative to express concern related to a delay in the patient's emergent transfer to the community hospital.

Facility leaders failed to collect, monitor, and evaluate interfacility transfer data as part of VHA's quality management program. The absence of interfacility transfer data limited the ability of leaders to analyze and identify transfer system issues.

Recommendations 1–10

1. The Robert J. Dole VA Medical Center Director ensures that Emergency Department physicians receive training on the facility's acute coronary syndrome protocol and verifies that ST-elevation myocardial infarction time goals are monitored, and improvements implemented as needed.
2. The Robert J. Dole VA Medical Center Director makes certain a facility policy that is applicable to all patient care areas outlines standardized processes for safe and timely interfacility transfers, including communication of appropriate transport services needed.
3. The Robert J. Dole VA Medical Center Director conducts an analysis of the contributing factors that led to the delay in the patient's interfacility transfer and takes action as necessary to improve identified deficiencies.
4. The Robert J. Dole VA Medical Center Director ensures the newly implemented Emergency Department Interfacility Transfers policy is reviewed and updated to include improvements as data are obtained from the interfacility transfer analysis.
5. The Robert J. Dole VA Medical Center Director makes certain that Emergency Department and Health Administrative Service staff are trained on the Emergency Department Interfacility Transfers policy, the updated service agreement between Cardiology and Emergency Departments, and interfacility transfer process and monitors the transfer process, including timeliness of transfers.
6. The Robert J. Dole VA Medical Center Director ensures the Critical Care Committee evaluates all concerns identified during code events, makes recommendations for improvement, confirms actions are implemented, and assesses effectiveness of actions.
7. The Robert J. Dole VA Medical Center Director ensures the Chief, Quality Management is a member of the Critical Care Committee, develops a process to address problems in obtaining the assistance of Emergency Medical Services or use of the 911 call system, and assesses the effectiveness of the process.
8. The VA Heartland Network Director reviews the peer reviews of physicians who provided care to the patient to determine if a focused clinical review by an independent reviewer is warranted and takes actions as necessary.
9. The Robert J. Dole VA Medical Center Director reviews the patient's care provided in the Emergency Department and the circumstances of the interfacility transfer to determine if an institutional disclosure is warranted.

10. The Robert J. Dole VA Medical Center Director ensures interfacility transfer data are collected, analyzed, and incorporated into the Robert J. Dole VA Medical Center's quality management program as required by Veterans Health Administration policy.

Appendix A: Timeline of Care

Table A.1. Summary of Events Related to the Patient’s Emergency Department Care⁶⁵

Time	Action
1:45 p.m.	Patient arrives by walking into the facility’s Emergency Department.
1:48 p.m.	Patient triaged by nurse 1.
1:51 p.m.	Patient placed in Emergency Department bed. Nurse 2 documented physician 1 notified of patient. Initial nursing assessment completed by nurse 2.
1:52 p.m.	Initial EKG completed.
1:55 p.m.	Nurse 2 placed intravenous access, collected blood and sent to laboratory for testing.
2:05 p.m.	Nitroglycerin administered for pain level 5 out of 10.
2:10 p.m.	Nitroglycerin administered for pain level 8 out of 10. Nurse 2 documented physician 1 notified and at bedside.
2:12 p.m.	Nurse practitioner documented ACS treatment initiated and patient seen and examined by physician 1.
2:15 p.m.	Nurse 2 documented aspirin administered.
2:16 p.m.	Physician 1 notified that patient’s condition worsening with “increasing pain level, diaphoresis, and pale/gray facial color.”
2:24 p.m.	Second EKG completed and given to physician 1. Nurse 2 documented physician 1 notified of patient’s worsening condition.
2:28 p.m.	Third EKG completed and given to physician 1. Nurse 2 documented physician 1 notified of patient’s worsening condition.
2:29 p.m.	Physician 1 contacts cardiologist for consult. Cardiologist states “[a]s we do not have PCI coverage at this time, I recommend transfer to an outside PCI-capable facility.”
Unknown	<i>Physician 1 called the community hospital to contact the patient’s community cardiologist. Community hospital takes physician 1’s phone number and indicates they would page the provider and call back when patient’s community cardiologist answered.</i>
2:32 p.m.	Fourth EKG completed.
2:35 p.m.	Physician 1 contacted community hospital and explained patient now thought to have STEMI. Community hospital cardiologist on-call for STEMI paged.

⁶⁵ The timeline presented is based on times documented in the EHR and may be subject to inaccuracies created by time differences depending on the accuracy of the watch or clock referenced or incorrect estimations of the time an event occurred.

Mismanagement of Emergency Department Care of a Patient with Acute Coronary Syndrome at the Robert J. Dole VA Medical Center in Wichita, Kansas

2:36 p.m.	Physician 2 contacted cardiologist for EKG changes suspicious for posterior STEMI, who advised a posterior EKG to be completed and again recommended immediate transfer to PCI-capable facility. Cardiologist came to the Emergency Department.
2:40 p.m.	Fifth EKG completed given to physician 1. Nurse 2 documented physician 1 notified of patient's worsening condition.
2:42 p.m.	Sixth EKG completed.
2:47 p.m.	Seventh EKG completed – “consider inferior injury or acute infarct as well as posterior STEMI, prolonged QT, ****ACUTE MI [myocardial infarction]/STEMI****.” Nurse 2 notified physician 1 that EKG shows acute MI/STEMI. Transfer documents indicate the community hospital's on-call cardiologist accepted the patient and agreed to the transfer.
2:49 p.m.	Patient experienced cardiac arrest and code initiated. ⁶⁶
2:52 p.m.	HAS supervisor placed call to EMS 911 dispatch for a “lights and sirens” emergent transport.
2:53 p.m.	EMS dispatched.
2:54 p.m.	EMS en route to facility.
3:01 p.m.	EMS on scene at facility.
3:08 p.m.	EMS first contact with patient.
3:21 p.m.	Physician 1 notified cardiologist that the patient suffered a cardiac arrest. Cardiologist returned to the Emergency Department and noted “patient needs immediate transfer for primary PCI.”
3:24 p.m.	EMS calls dispatch and requests additional critical care paramedic support. EMS 911 dispatch assigned the call to critical care paramedic.
3:31 p.m.	Critical care paramedic on scene at facility.
4:20 p.m.	Patient care hand-off from Emergency Department staff to EMS. Patient placed on EMS stretcher and leaves Emergency Department.
4:23 p.m.	EMS en route to community hospital.
4:28 p.m.	EMS arrives at community hospital.

Source: OIG analysis of the patient's EHR, EMS report and 911 dispatch recording, and Sedgwick County and facility staff statements.

⁶⁶ Between 2:49 p.m. and 3:55 p.m., Emergency Department staff documented the patient experienced intermittent periods of cardiac arrest. During this time, the patient received multiple cardiac defibrillations and intravenous medications.

Appendix B: VISN Director Memorandum

Department of Veterans Affairs Memorandum

Date: August 19, 2020

From: Director, VA Heartland Network (10N15)

Subj: Healthcare Inspection—Mismanagement of Emergency Department Care of a Patient with Acute Coronary Syndrome at the Robert J. Dole VA Medical Center in Wichita, Kansas

To: Director, Office of Healthcare Inspections (54HL09)
Director, GAO/OIG Accountability Liaison Office (VHA 10EG GOAL Action)

1. Attached is the facilities response to the draft report: Healthcare Inspection—Mismanagement of Emergency Department Care of a Patient with Acute Coronary Syndrome at the Robert J. Dole VA Medical Center in Wichita, Kansas.
2. I have reviewed and concur with the facility's response to the findings, recommendations, and submitted action plans.

(Original signed by:)

William P. Patterson, M.D., MSS
Network Director VA Heartland Network (VISN 15)

VISN Director Response

Recommendation 8

The VA Heartland Network Director reviews the peer reviews of physicians who provided care to the patient to determine if a focused clinical review by an independent reviewer is warranted and takes actions as necessary.

Concur.

Target date for completion: December 31, 2020

Director Comments

On July 31, 2020 the Network Director, Chief Medical Officer, and the Quality Management Officer requested all physician peer review documents from the Robert J. Dole VA Medical Center in Wichita, Kansas related to the care of the patient. After receipt, all peer review documents will be reviewed by the Network Director, Chief Medical Officer, and Quality Management Officer to determine if a focused clinical review by an independent reviewer is warranted. As necessary, the reviews will be sent to the independent reviewer to conduct the focused clinical review. Upon completion, the focused clinical reviews with any quality of care concerns identified and recommendations will be forwarded to the Robert J. Dole VA Medical Center in Wichita, Kansas for review and further action as necessary. The Robert J. Dole VA Medical Center will provide status updates regarding completion of recommendations to the Quality Management Officer.

The Network Director, Chief Medical Officer, and the Quality Management Officer will track completion of any focused clinical reviews by an independent reviewer. The numerator is the number of completed focused clinical reviews by an independent reviewer and the denominator will be the number of requested focused clinical reviews to be completed by the independent reviewer. The target for compliance is 100%.

Appendix C: Facility Director Memorandum

Department of Veterans Affairs Memorandum

Date: August 17, 2020

From: Acting Medical Center Director, Robert J. Dole VA Medical Center (589/A7)

Subj: Healthcare Inspection—Mismanagement of Emergency Department Care of a Patient with Acute Coronary Syndrome at the Robert J. Dole VA Medical Center in Wichita, Kansas

To: Director, VA Heartland Network (10N15)

1. Thank you for the opportunity to review the Draft Report: Healthcare Inspection-Mismanagement of Emergency Department Care of a Patient with Acute Coronary Syndrome at the Robert J. Dole VA Medical Center in Wichita, Kansas. I appreciate the Office of Inspector General's extensive work and collaboration with our staff.

2. I have reviewed and concur with the recommendations in the draft report. Corrective action plans have been developed, implemented and are outlined in the attached report.

(Original signed by:)

Robert V. Cummings, M.D.
Acting Medical Center Director

Facility Director Response

Recommendation 1

The Robert J. Dole VA Medical Center Director ensures that Emergency Department physicians receive training on the facility's acute coronary syndrome protocol and verifies that ST-elevation myocardial infarction time goals are monitored, and improvements implemented as needed.

Concur.

Target date for completion: January 31, 2021

Director Comments

The Robert J. Dole VA Medical Center Chief of Emergency Medicine has reviewed the Medical Centers Acute Coronary Syndrome Standard Operating Procedure. The Standard Operating Procedure will be presented, and a handout distributed, to all Emergency Department nursing staff and physicians in a session scheduled for August 19, 2020. At least 95% of the staff will be trained on the Acute Coronary Syndrome Standard Operating Procedure and a training roster for completion of the session will be maintained.

On July 28, 2020, the Chief of Emergency Medicine and the Associate Chief of Staff, Medicine Services (Chair of the Critical Care Committee) developed metrics and a monitoring tool for submission of STEMI data. The Critical Care Committee Charter has been modified to reflect the monthly data submission and the reviews for ST-elevation myocardial infarctions.

The Chief of Emergency Medicine is monitoring ST-elevation myocardial infarction management including time goals. The data will be tracked on the monitoring tool and submitted monthly to the Critical Care Committee as of August 31, 2020. Action plans will be developed and implemented for 90% of tracked items. The Critical Care Committee will review the report and task the Emergency Medicine Chief to address any identified issues.

The Robert J. Dole VA Medical Center will provide the OIG with a copy of the Acute Coronary Syndrome Standard Operating Procedure, staff training rosters, the Critical Care Committee Charter and the August Critical Care Committees meeting minutes reflecting review and appropriate follow-up of any issues with ST-elevation myocardial infarctions starting August 31, 2020, and continuing monthly through January 31, 2021.

Recommendation 2

The Robert J. Dole VA Medical Center Director makes certain a facility policy that is applicable to all patient care areas outlines standardized processes for safe and timely interfacility transfers, including communication of appropriate transport services needed.

Concur.

Target date for completion: September 30, 2020

Director Comments

The Robert J. Dole VA Medical Center developed a new interfacility transfer policy that went into effect on March 17, 2020. The policy details standardized processes for safe and timely interfacility transfers including communication of appropriate transport services needed. The title of the policy was revised on July 30, 2020, to ED-07 MEDICAL CENTER INTERFACILITY TRANSFERS-ALL SERVICES further depicting applicability to all areas of the Medical Center.

Robert J. Dole VA Medical Center provided the OIG team with a copy of training records from the initial policy (dated March 17, 2020). A copy of the Robert J. Dole VA Medical Center transfer policy ED-07 EMERGENCY DEPARTMENT INTERFACILITY TRANSFERS-ALL SERVICES will be provided to the OIG with closure requested on this action item.

Recommendation 3

The Robert J. Dole VA Medical Center Director conducts an analysis of the contributing factors which led to the delay in the patient's interfacility transfer and takes action as necessary to improve identified deficiencies.

Concur.

Target date for completion: September 30, 2020

Director Comments

The Robert J. Dole VA Medical Center Director and staff reviewed the referenced interfacility transfer. The review included the transfer process components including timeline, Emergency Management Service communication, staff actions, and interfacility communication.

The revised Acute Coronary Syndrome Standard Operating Procedure, the new Interfacility Transfer process, and the ongoing monthly reviews by the Critical Care Committee address identified deficiencies.

A copy of the Robert J. Dole VA Medical Center initial action plan accepted by the OIG Team on April 20, 2020, will be provided to the OIG again with closure requested on this action item.

Recommendation 4

The Robert J. Dole VA Medical Center Director ensures the newly implemented Emergency Department Interfacility Transfers policy is reviewed and updated to include improvements as data are obtained from the interfacility transfer analysis.

Concur.

Target date for completion: January 31, 2021

Director Comments

To ensure the new Emergency Department Interfacility Transfer policy ED-07 MEDICAL CENTER INTERFACILITY TRANSFERS-ALL SERVICES is reviewed and updated (as noted above), the Robert J. Dole VA Medical Center revised the Critical Care Committee Charter to include recommendation of improvements as data is obtained from the interfacility transfer analysis.

The Critical Care Committee will review all interfacility transfers monthly. Transfers not in accord with the transfer policy or involving time delays or associated with unexpected outcome will be analyzed by internal and external processes. Action plans will be developed and implemented for 90% of tracked items. The outcome of the analysis and recommendations of the Critical Care Committee will be forwarded to the Chief, Emergency Medicine. The transfer policy will be updated as needed based on the Critical Care Committee recommendations.

The Robert J. Dole VA Medical Center will provide the OIG with a copy of the Interfacility Transfer Policy (ED-07), the Critical Care Committee Charter and the Critical Care Committee's meeting minutes reflecting review and appropriate follow-up of any issues with interfacility transfers starting August 31, 2020, and continuing monthly through January 31, 2021.

Recommendation 5

The Robert J. Dole VA Medical Center Director makes certain that Emergency Department and Health Administrative Service staff are trained on the Emergency Department Interfacility Transfers policy, the updated service agreement between Cardiology and Emergency Departments, and interfacility transfer process and monitors the transfer process, including timeliness of transfers.

Concur.

Target date for completion: January 31, 2021

Director Comments

All Emergency Medicine, Medical Administrative Service staff, and staff of other Services from which transfers may originate were trained on the policy ED-07 MEDICAL CENTER INTERFACILITY TRANSFERS-ALL SERVICES when the new policy was published on March 17, 2020. The Chief of Emergency Medicine Service will again present the interfacility transfer policy and the Service Agreement between Cardiology and the Emergency Department at the Emergency Department and Medicine Services meetings August 19, 2020. At least 95% of the staff will be trained on the above-mentioned items and a training roster for completion of the training session will be maintained. Both the transfer policy and service agreements will also be presented at the August Medical Administration Service Meeting. The Emergency Medicine

Chief also will present the interfacility transfer process and the new monitoring process for transfers, including timeliness of transfers, at the nursing and medical staff meetings.

The Robert J. Dole VA Medical Center will provide the OIG with a copy of the August 2020 Emergency Department training rosters demonstrating review of the Interfacility Transfer Policy (ED-07), the Service Agreement between Cardiology and the Emergency Department monitoring process for interfacility transfers (that includes the timeliness of transfers), and the Critical Care Committee meeting minutes demonstrating that action plans will be developed and implemented for 90% of tracked items.

Recommendation 6

The Robert J. Dole VA Medical Center Director ensures the Critical Care Committee evaluates all concerns identified during code events, makes recommendations for improvement, confirms actions are implemented, and assesses effectiveness of actions.

Concur.

Target date for completion: January 31, 2021

Director Comments

The Robert J. Dole Critical Care Committee Charter has been updated to address the evaluation of Code events. The Critical Care Committee will review and evaluate documentation, the described processes, and the outcome of codes. Any identified concerns will be reviewed with the leadership and staff of the involved Services. An action plan for resolution will be developed and tracked by the Critical Care Committee. Action plans will be developed and implemented for 90% of tracked items.

Findings and plans will be documented in the Critical Care Committee Minutes which are presented to the Medical Executive Committee and roll up to the Quality, Safety, and Value Board, which is overseen by the Medical Center Director.

The Robert J. Dole VA Medical Center will provide the OIG with a copy of the Critical Care Committee Charter and the August Critical Care Committees meeting minutes reflecting review and appropriate follow-up of Code Blue events starting August 31, 2020, and continuing monthly through January 31, 2021.

Recommendation 7

The Robert J. Dole VA Medical Center Director ensures the Chief, Quality Management, is a member of the Critical Care Committee, develops a process to address problems in obtaining the assistance of EMS or use of the 911 call system, and assesses the effectiveness of the process.

Concur.

Target date for completion: January 31, 2021

Director Comments

The Critical Care Committee Charter has been updated to include the Chief Quality Management Officer as a voting member with Risk Management as back-up or alternate. A section will be added into the Critical Care Minutes as a standing agenda item to discuss issues and assess the effectiveness of the process related to use of the 911 call system and/or obtaining the assistance of Emergency Medical Services in the event of an emergency. Action plans will be developed and implemented for 90% of tracked items. The Critical Care Committee, in collaboration with the Quality Management Officer, will follow up on the action plans to ensure the actions identified have been corrected.

The Robert J. Dole VA Medical Center will provide the OIG with a copy of the Critical Care Committee Charter and the August Critical Care Committees meeting minutes reflecting the Quality Management Officers membership and attendance on the Critical Care Committee. The minutes will reflect the new process to address problems in obtaining the assistance of EMS or use of the 911 call system and assesses the effectiveness of the process starting August 31, 2020, and continuing monthly through January 31, 2021.

Recommendation 9

The Robert J. Dole VA Medical Center Director reviews the patient's care provided in the Emergency Department and the circumstances of the interfacility transfer to determine if an institutional disclosure is warranted.

Concur.

Target date for completion: October 30, 2020

Director Comments

Robert J. Dole VA Medical Center extensively reviewed the patient care provided in the Emergency Department and the circumstance of all events that transpired regarding the subject case. Clinical reviews of this occurrence determined that the clinical management timespan related to attempted stabilization of the critically ill patient prior to a transfer attempt was appropriate. Having discussed the clinical situation with the family, the facility determination was that adding an institutional disclosure was not indicated.

Upon receipt of any additional external peer reviews conducted at the direction of the VISN Network Director, the Peer Review Committee, Chief of Staff, and Quality Management Officer will examine and consider the review(s) and implement actions on any identified quality of care concerns, if deemed appropriate.

Recommendation 10

The Robert J. Dole VA Medical Center Director ensures interfacility transfer data are collected, analyzed, and incorporated into the Robert J. Dole VA Medical Center's quality management program as required by Veterans Health Administration policy.

Concur.

Target date for completion: January 31, 2021

Director Comments

To ensure the new Interfacility Transfer Policy is reviewed and updated to include improvements as data is obtained from the interfacility transfer analysis, the Robert J. Dole VA Medical Center revised the Critical Care Committee Charter. The transfer policy will be updated as needed based on the Critical Care Committee reviews.

To ensure that interfacility transfer data is collected, analyzed, and incorporated into the Robert J. Dole VA Medical Center's Quality Management Program as required by Veterans Health Administration policy, the Robert J. Dole VA Medical Center has revised the Critical Care Committee Charter. All Critical Care Committee Minutes are submitted to, and reviewed by, the Medical Executive Committee which reports to the Quality Safety and Value Committee. The transfer policy will be updated as needed based on the Critical Care Committee reviews.

Robert J. Dole VA will provide the OIG with a copy of the Interfacility Transfer Policy, the Critical Care Committee Charter and the Critical Care Committees meeting minutes reflecting review and appropriate follow-up of any issues with interfacility transfers starting August 31, 2020, and continuing monthly through January 31, 2021.

Action plans will be developed and implemented for 90% of tracked items. Findings and plans will be documented in the Critical Care Committee Minutes which are presented to the Medical Executive Committee and rolled up to the Quality, Safety, and Value Board, which is overseen by the Medical Center Director.

Glossary

12-lead EKG. An EKG (electrocardiogram) that records the heart's electrical activity from 12 different monitoring sites known as electrodes placed on the patient's arms and legs.⁶⁷

cardiac arrest. The stopping of the heart and inability to pump blood to the body. If left untreated, this results in death. Coronary artery disease is a common cause of cardiac arrest in adults.⁶⁸

cardiopulmonary resuscitation. An organized sequential response to cardiac arrest including recognition of absent breathing and circulation, basic life support with chest compressions and rescue breathing, advanced cardiac life support with definitive airway and rhythm control using defibrillation and medications, and post-resuscitative care.⁶⁹

code blue. Declaration of a medical emergency with the summoning of medical personnel and equipment to attempt cardiopulmonary resuscitation of a patient experiencing a cardiac arrest or respiratory failure.⁷⁰

coronary artery. An artery that supplies the heart muscle with blood.⁷¹

coronary artery disease. A disease that develops when the blood vessels that supply the heart muscle with blood become damaged and narrowed. A buildup of cholesterol containing deposits, or plaques, narrows the coronary arteries resulting in a decrease in blood flow to the heart, resulting in symptoms such as shortness of breath or chest pain. A complete blockage of blood flow may cause a heart attack.⁷²

coronary stent. A small mesh tube placed in a coronary artery during a PCI procedure. The stent remains in the coronary artery to keep the artery open.⁷³

⁶⁷ Guy Goldich, "Understanding the 12-lead ECG Part 1," *Nursing2006* 36, no. 11 (November 2006): 36-41. https://journals.lww.com/nursing/Fulltext/2006/11000/Understanding_the_12_lead_ECG_part_1.32.aspx. (The website was accessed on April 29, 2020.)

⁶⁸ Merck Manual, *Cardiac Arrest*. <https://www.merckmanuals.com/professional/critical-care-medicine/cardiac-arrest-and-cpr/cardiac-arrest?query=cardiac%20arrest>. (The website was accessed on April 27, 2020.)

⁶⁹ Merck Manual. *Cardiopulmonary Resuscitation (CPR) in Adults*. <https://www.merckmanuals.com/professional/critical-care-medicine/cardiac-arrest-and-cpr/cardiopulmonary-resuscitation-cpr-in-adults?query=cpr#v925728>. (The website was accessed on March 23, 2020.)

⁷⁰ Merriam-Webster. *Definition of code blue*. <https://www.merriam-webster.com/medical/code%20blue>. (The website was accessed on April 28, 2020.)

⁷¹ Cleveland Clinic, *Coronary Arteries*. <https://my.clevelandclinic.org/health/articles/17063-coronary-arteries>. (The website was accessed on May 5, 2020.)

⁷² Mayo Clinic, *Coronary Artery Disease*. <https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/symptoms-causes/syc-20350613>. (The website was accessed on April 29, 2020.)

⁷³ National Heart, Lung, and Blood Institute, *Percutaneous Coronary Intervention*. <https://www.nhlbi.nih.gov/health-topics/percutaneous-coronary-intervention>. (The website was accessed on January 29, 2020.)

defibrillation. Administration of electrical current or shock to the heart to interrupt ventricular fibrillation, an abnormal heart rhythm, to restore a normal heart rhythm and circulation. The shock is administered using pads applied to the chest wall. Multiple shocks may be required to restore a normal heart rhythm, and defibrillation may not always be successful. Defibrillation is a component of the cardiopulmonary resuscitation protocol.⁷⁴

diaphoretic (diaphoresis). An adjective used to describe a person who is profusely sweating. Diaphoresis is one symptom of a heart attack.⁷⁵

electrocardiogram. A medical device used to record the electrical activity in the heart.⁷⁶

emergency medical services (EMS). Private or public agencies that provide emergency medical care to patients following a serious injury or illness.⁷⁷

interventional cardiologists. Cardiologists who have additional education and training in diagnosing and treating diseases of the heart using catheter-based procedures such as PCI.⁷⁸

intravenous fluids. Isotonic crystalloid solutions administered by a catheter in the vein to patients who are in shock.⁷⁹

intubation. The insertion of a tube in the trachea to maintain the airway and provide ventilatory support.⁸⁰

ischemia. A loss of blood supply to the heart due to obstruction of the blood vessels.⁸¹

⁷⁴ Merck Manual, *Direct-Current (DC) Cardioversion-Defibrillation*. <https://www.merckmanuals.com/professional/cardiovascular-disorders/arrhythmias-and-conduction-disorders/direct-current-dc-cardioversion-defibrillation#>. (The website was accessed on April 28, 2020.)

⁷⁵ Merriam-Webster, *Definition of diaphoretic*. <https://www.merriam-webster.com/dictionary/diaphoretic>. (The website was accessed on February 6, 2020.) Merck Manual, *Acute Coronary Syndromes (Heart Attack; Myocardial Infarction; Unstable Angina)*. <https://www.merckmanuals.com/home/heart-and-blood-vessel-disorders/coronary-artery-disease/acute-coronary-syndromes-heart-attack-myocardial-infarction-unstable-angina>. (The website was accessed on February 3, 2020.)

⁷⁶ Mayo Clinic, *Electrocardiogram (ECG or EKG)*. <https://www.mayoclinic.org/tests-procedures/ekg/about/pac-20384983>. (The website was accessed on April 29, 2020.)

⁷⁷ EMS.gov, *What is EMS?* <https://www.ems.gov/whatisems.html>. (The website was accessed on April 5, 2020.)

⁷⁸ American Medical Association, *Interventional Cardiology*. <https://www.ama-assn.org/specialty/interventional-cardiology>. (The website was accessed on April 21, 2020.)

⁷⁹ Merck Manual, *Intravenous fluid resuscitation*. [https://www.merckmanuals.com/professional/critical-care-medicine/shock-and-fluid-resuscitation/intravenous-fluid-resuscitation?query=intravenous fluids](https://www.merckmanuals.com/professional/critical-care-medicine/shock-and-fluid-resuscitation/intravenous-fluid-resuscitation?query=intravenous+fluids). (The website was accessed on May 5, 2020.)

⁸⁰ Merriam-Webster, *Definition of intubated*. <https://www.merriam-webster.com/dictionary/intubated>. (The website was accessed on May 5, 2020.)

⁸¹ Merriam-Webster, *Definition of ischemia*. <https://www.merriam-webster.com/dictionary/ischemia>. (The website was accessed on May 5, 2020.)

morphine. An opioid medication used for relief of pain.⁸²

myocardial infarction. Also known as a “heart attack.” Myocardial infarction occurs when myocardial (heart) tissues die as a result of the acute blockage of a coronary artery.⁸³

nitroglycerin. A medication used to relieve symptoms of chest pain. Nitroglycerin is available in various forms, including sublingual tablets, topical patches and cream, and can also be administered in the hospital by intravenous infusion to treat ACS. Nitroglycerin relieves chest pain by causing dilation of blood vessels and increasing blood flow.⁸⁴

paramedic. A trained medical technician licensed to provide emergency care before or during transport to a hospital.⁸⁵

percutaneous coronary intervention. Also known as coronary angioplasty. A percutaneous coronary intervention is a nonsurgical procedure that uses a catheter to remove blockages in the coronary arteries.⁸⁶

posterior EKG. In a posterior EKG procedure, three of the anterior EKG leads, V₄, V₅, V₆, are repositioned to the patient’s back on the left side of the torso and labeled EKG leads V₇, V₈, V₉. Elevation of the ST-segment in these posterior EKG leads indicates a myocardial infarction of the posterior wall of the heart.⁸⁷

⁸² Prescribers’ Digital Reference, *Morphine sulfate*. <https://pdr.net/drug-summary/Morphine-Sulfate-Oral-Solution-morphine-sulfate-1228>. (The website was accessed on May 5, 2020.)

⁸³ Merck Manual, *Acute Coronary Syndromes (Heart Attack; Myocardial Infarction; Unstable Angina)*. <https://www.merckmanuals.com/home/heart-and-blood-vessel-disorders/coronary-artery-disease/acute-coronary-syndromes-heart-attack-myocardial-infarction-unstable-angina>. (The website was accessed on February 3, 2020.)

⁸⁴ Prescribers’ Digital Reference, *Nitroglycerin*. <https://www.pdr.net/drug-summary/Nitrostat-nitroglycerin-463.8427>. (The website was accessed on April 29, 2020.)

⁸⁵ Merriam-Webster, *Definition of paramedic*. <https://www.merriam-webster.com/dictionary/paramedic>. (The website was accessed on April 14, 2020.)

⁸⁶ National Heart, Lung, and Blood Institute, *Percutaneous Coronary Intervention*. <https://www.nhlbi.nih.gov/health-topics/percutaneous-coronary-intervention>. (The website was accessed on January 29, 2020.)

⁸⁷ Ramon E. Casas, Henry J.L. Marriott, and D. Luke Glancy, “Value of Leads V₇-V₉ in Diagnosing Posterior Wall Acute Myocardial Infarction and Other Causes of Tall R Waves in V₁-V₂,” *The American Journal of Cardiology* 80, No. 4 (August 15, 1997): 508-509. <https://www.sciencedirect.com/science/article/pii/S0002914997004049?via%3Dihub>. (The website was accessed on April 22, 2020.)

posterior myocardial infarction (MI). An injury to the posterior wall of the heart. EKG findings that may indicate a posterior MI are ST-segment depression in two or more of the precordial EKG leads (leads V1-V4).⁸⁸

specialty care. Healthcare services available from providers with expert knowledge and additional training and education. Examples of specialty care include cardiology, dermatology, mental health, and urology.⁸⁹

ST-segment. Part of the electrical waveform measured on an EKG. The ST-segment provides information about oxygen levels in the heart. Changes in the ST-segment seen on the EKG are important indicators of myocardial infarction.⁹⁰

triage. A term used to describe the methodology used by emergency department staff to “assess patients’ severity of injury or illness within a short time after their arrival, assign priorities, and transfer each patient to the appropriate place for treatment.”⁹¹

⁸⁸ Patrick O’Gara, et al., “2013 American College of Cardiology Foundation/American Heart Association Guideline (ACCF/AHA) for the Management of ST-Elevation Myocardial Infarction,” *Journal of the American College of Cardiology* 61, no. 4 (2013): e78-140.

http://www.onlinejacc.org/content/61/4/e78?_ga=2.77559957.121052107.1579096747-1829073168.1576550868. (The website was accessed on January 15, 2020.)

⁸⁹ U.S. Department of Veterans Affairs, *Specialty Care Services*.

https://www.va.gov/healthbenefits/access/specialty_care_services.asp. (The website was accessed on May 12, 2020.)

⁹⁰ Guy Goldich, “Understanding the 12-lead ECG Part 1.”

⁹¹ Michael Christ, et al., “Modern Triage in the Emergency Department,” *Deutsches Arzteblatt International* 107 no. 50 (2010): 892-898. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3021905/pdf/Dtsch_Arztebl_Int-107-0892.pdf. (The website was accessed on January 28, 2020.)

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