



DEPARTMENT OF VETERANS AFFAIRS
OFFICE OF INSPECTOR GENERAL

Tele

Office of Healthcare Inspections

VETERANS HEALTH ADMINISTRATION

Alleged Deficiencies within
the Cardiac Telemetry
Monitoring Service at the
Nashville VA Medical Center
in Tennessee



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Executive Summary

The VA Office of Inspector General (OIG) conducted a healthcare inspection at the Nashville VA Medical Center (facility) in Tennessee to evaluate alleged deficiencies related to cardiac (telemetry) monitoring services including policies, staffing, and communication.¹

The OIG evaluated allegations including outdated system policy related to telemetry monitoring and practices, communication issues related to the specific location and movements of telemetry patients while in the hospital, staffing issues that may have resulted in telemetry staffing shortages and inadequate training, and staff knowledge and care provided to telemetry patients with “do not resuscitate” (DNR) orders. In addition to the allegations, while touring the Telemetry Studio, the OIG identified improper storing of reusable medical equipment (RME).

The OIG did not substantiate that the system’s policy was outdated related to telemetry monitoring and practices. The OIG determined that the system’s 2017 and 2019 policies reflected the most recent American Heart Association Scientific Statements for telemetry monitoring and practices.

The OIG identified a few isolated communication issues between the telemetry technicians and telemetry-patient nurses related to the specific location and movement of telemetry patients while in the hospital. The OIG did not make a recommendation since an electronic patient tracking system was available in case of an emergency.

In addition, in 2018, facility leaders identified other communication issues with the processes for correct entry of patient demographics, validation of correct patient telemetry box placement, and verification of waveform transmission to the telemetry system. The OIG reviewed facility leaders’ actions, which included policy revisions and staff training and noted overall improvement since staff training in February 2019. The OIG therefore made no recommendation.

The rapid response team policy and staff practice regarding the initiation of a rapid response team call did not always align, which is important to mitigate system vulnerabilities. The system rapid response team policy defines the staff nurse assigned to the patient or the charge nurse as the person to initiate the rapid response team. However, in practice, when a patient’s nurse or charge nurse were not available to evaluate a patient, telemetry technicians initiated a rapid response team call to address the patient’s arrhythmia. To reduce confusion among staff, the system policy should reflect practice.

The OIG did not substantiate staffing shortages or the alleged inadequate training of staff performing telemetry monitoring. The OIG determined that the system revised its policy and

¹ The Tennessee Valley Healthcare System (system) is composed of the facility and the Alvin C. York VA Medical Center, Murfreesboro, Tennessee.

followed a January 2020 Veterans Integrated Service Network publication specific to staffing for cardiac monitoring in the Telemetry Studio. Since the system has the maximum capacity of 96 patients monitored at any given time, each telemetry technician could monitor up to 48 patient waveforms.

The OIG reviewed telemetry monitoring training and competency requirements and records for telemetry technicians and nurses assigned to the Telemetry Studio and found staff were up to date.

The OIG did not substantiate that telemetry patients with DNR orders who developed arrhythmias were not treated, or that nursing staff had knowledge deficits related to the care of telemetry patients with DNR orders. During interviews and document reviews, the OIG team was unable to identify telemetry patients with DNR orders who did not receive clinically appropriate interventions.

While conducting a tour of the Telemetry Studio, the OIG identified improper RME practices with the return of used and contaminated telemetry boxes and the location of clean supplies. The OIG observed non-telemetry staff placing used and contaminated telemetry boxes into a receptacle located directly in front of a storage shelf of clean supplies in the Telemetry Studio. While the OIG was on-site, system leaders were made aware of the concern and developed a written standard operating procedure outlining how to clean telemetry boxes once removed from the patient, prior to return to the Telemetry Studio. The OIG received an email from system leaders while on-site and were told by staff interviewed that since the OIG site visit, used telemetry boxes were no longer being cleaned in the Telemetry Studio. The OIG determined that no further action was indicated due to the immediate steps taken by system leaders.

The OIG made one recommendation to the System Director to ensure consistency between the system's policy and actual practice for initiating a rapid response team call.

Comments

The Veterans Integrated Service Network and System Directors concurred with the findings and recommendation and provided an acceptable action plan (see appendixes A and B). The OIG will follow up on the planned actions until they are completed.



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

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Abbreviations

DNR	do not resuscitate
OIG	Office of Inspector General
RME	reusable medical equipment
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network



Introduction

The VA Office of Inspector General (OIG) conducted a healthcare inspection at the Nashville VA Medical Center (facility) in Tennessee, to evaluate alleged deficiencies related to cardiac (telemetry) monitoring services including policies, staffing, and communication.

Background

The Tennessee Valley Healthcare System (system) is composed of the facility and the Alvin C. York Medical Center, Murfreesboro, Tennessee, and is part of Veterans Integrated Service Network (VISN) 9. VA classifies the facility as Level 1a—high complexity.¹ From October 1, 2018, through September 30, 2019, the facility served 89,621 patients and had a total of 428 operating beds, including 216 inpatient, 34 domiciliary, and 178 community living center beds. Affiliations include Vanderbilt University School of Medicine and Meharry Medical College.

Telemetry Monitoring

Telemetry monitoring operates through a wireless network and transmits a patient's electrocardiogram as a graphic image of the heart's electrical activity (waveforms) to a central monitoring station, referred to as the Telemetry Studio at the facility.² The waveforms provide information used by a telemetry technician to recognize normal and abnormal rhythms (arrhythmias).³ A wireless patient monitor (telemetry box) transmits the waveform to the Telemetry Studio and allows patient mobility throughout the facility and adjacent areas such as a

¹ VHA Office of Productivity, Efficiency, and Staffing. (The website was accessed on November 1, 2019, and is an internal VA website not publicly accessible.) The VHA Facility Complexity Model categorizes medical facilities by complexity level based on patient population, clinical services offered, educational and research missions, and administrative complexity. Complexity Levels include 1a, 1b, 1c, 2, or 3. Level 1a facilities are considered the most complex. Level 3 facilities are the least complex.

² Goldberger, A.L. *Harrison's Principles of Internal Medicine*, 20e. (New York, McGraw-Hill). Chapter 235. Mary G. Carey, Teri M. Kozik and Michele M. Pelter. *American Association Critical Care Nurses (AACN) Procedure Manual for High Acuity, Progressive, and Critical Care. Cardiac Monitoring and Electrocardiographic Leads*. 7e. (Saunders, 2017). 467-476. Department of Veteran Affairs, Center for Engineering and Occupational Safety and Health. IntelliVue MX40. Installation and Service.

³ American Heart Association, *About Arrhythmia*, September 30, 2016. Abnormal heart rhythms, known as arrhythmias, refer to any change from the heart's normal sequence of electrical activity and can be harmless or life-threatening. <https://www.heart.org/en/health-topics/arrhythmia/about-arrhythmia>. (The website was accessed on March 15, 2020.) National Telemetry Association. *Telemetry Technicians: Who They Are & What They Do*. Telemetry technicians are trained to recognize heart rhythms. <https://nationaltelemetryassociation.org/telemetry-technicians-national-telemetry-association>. (The website was accessed on March 24, 2020.)

parking garage.⁴ At the facility, patients who have a physician order for telemetry monitoring are usually located on units 2N, 2G, or 3N.

The facility's Telemetry Studio has the capacity to monitor a total of 96 patients' waveforms simultaneously through six monitors, each capable of 16 waveform views.

Allegations and Related Concerns

The OIG received a complaint on August 27, 2019, alleging deficient telemetry monitoring practices at the facility. The allegations were referred to the Office of Healthcare Inspections Hotline Working Group for review. The OIG contacted the complainant who provided additional information about the allegations. After review of the additional information, the OIG opened the hotline to evaluate the allegations including

1. Outdated system policy related to telemetry monitoring and practices;
2. Communication issues related to the specific location and movement of telemetry patients while in the hospital;
3. Staffing issues that may have resulted in telemetry staffing shortages and inadequate training; and
4. Staff knowledge and care provided to telemetry patients with "do not resuscitate" (DNR) orders.⁵

In addition to the allegations, while touring the Telemetry Studio, the OIG identified improper storage of reusable medical equipment (RME).

⁴ Mary G. Carey, Teri M. Kozik and Michele M. Pelter. American Association Critical Care Nurses (AACN) Procedure Manual for High Acuity, *Progressive, and Critical Care. Cardiac Monitoring and Electrocardiographic Leads*.7e. (Saunders, 2017), 467-476.

⁵ VHA Handbook 1004.03. *Transmittal Sheet, Life-Sustaining Treatment Decisions: Eliciting, Documenting and Honoring Patients' Values, Goals and Preferences*, January 11, 2017, amended March 19, 2020. DNR is an order that cardiopulmonary resuscitation shall not be attempted; however, patients should still receive clinically appropriate care short of cardiopulmonary resuscitation.

Scope and Methodology

The OIG initiated the inspection in October 2019 and conducted a site visit January 6–9, 2020. During the site visit, members of the OIG team toured the Telemetry Studio.

The OIG team interviewed the Chief of Staff; Associate Director Patient Care Services; Chief of Medicine; 2N Clinical Nurse Leader; nurse managers; telemetry technicians; Acting Chief of Quality, Safety and Value; Patient Safety Manager; former Co-Chair of the Ethics Committee; VISN 9 biomedical staff; Talent Management System Coordinator; Program Director of Basic Life Support Education; and other knowledgeable staff.

The OIG team reviewed relevant Veterans Health Administration (VHA) directives, system and facility policies and procedures, staff training records, and patient safety event reports. In addition, the OIG team reviewed pertinent committee meeting minutes from October 2017 to November 2019.

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 leadership 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.

Inspection Results

1. Telemetry Monitoring Policy and Practices

The OIG did not substantiate that the system's policy was outdated related to telemetry monitoring and practices. The OIG gained clarification that the allegation was regarding an outdated system policy and American Heart Association Scientific Statements.⁶

System policy outlines the requirements for renewal of publications, including memorandums and standard operating procedures. At the time of the OIG review, policy reissue was required at three-year intervals.⁷ The system's 2017 telemetry monitoring policy was not due for review until 2020; however, an updated system policy was published on December 31, 2019. Both policies reference the American Heart Association Scientific Statements used to guide policy for telemetry monitoring and practices.⁸

The OIG compared the system's 2017 policy with the updated 2019 policy and found that changes included the removal of the telemetry technician to patient waveform monitoring ratios and identified the minimum number of telemetry technicians per shift.⁹ The OIG compared American Heart Association Scientific Statements published in 2004 and 2017 and found that the suggested practices had been incorporated in the system's 2017 and 2019 policies.¹⁰

The OIG determined that the system's 2017 and 2019 policies were not outdated and reflected the most recent American Heart Association Scientific Statements related to telemetry monitoring and practices.

2. Communication Issues

The OIG substantiated communication issues between telemetry technicians and telemetry patient nurses related to the specific location and movement of telemetry patients while in the facility. However, an electronic patient tracking system was available in case of an emergency. In addition, the OIG identified other communication issues including correct entry of patient

⁶ American Heart Association Scientific Statements are used by healthcare providers to guide policy and practice.

⁷ System Memorandum 626-17-00Q-09, *Healthcare System Publications*, December 29, 2017. System Memorandum 626-17-111-14, *Cardiac Monitoring on Telemetry Unit*, September 15, 2017.

⁸ System Memorandum 626-17-111-14. System Memorandum 626-12-111-14, *Cardiac Monitoring on Telemetry Unit*, December 31, 2019. For purposes of this report, the terms memorandum, policy, and standard operating procedure are used interchangeably. B.J. Drew et. al., "Practice Standards for Electrocardiographic Monitoring in Hospital Settings: a scientific statement from the American Heart Association," *Circulation*, 110(2004): 2721-2746. K.E. Sandau et.al., "Update to practice standards for electrocardiographic monitoring in hospital settings: a scientific statement from the American Heart Association," *Circulation*, 136, no.19(2017): e273-e344.

⁹ System Memorandum 626-17-111-14; System Memorandum 626-12-111-14.

¹⁰ American Heart Association Scientific Statements 2004 and 2017.

demographics, validation of telemetry box placement, verification of waveform transmission to the telemetry system, and initiation of the rapid response team.

Telemetry Patient Movement

The 2017 and 2019 system policies outlined processes for the patient's nurse to notify a telemetry technician when patient movement occurred within the system.¹¹ In the case of an emergency, if a telemetry technician did not receive notification of a patient's movement they had the ability to use a global positioning system tracker built into the telemetry monitoring system and telemetry box to locate the patient. While the OIG was touring the Telemetry Studio, telemetry staff demonstrated the ability to locate patients.

The OIG reviewed 60 telemetry-related patient safety events submitted to the Patient Safety Manager from November 3, 2017, through December 3, 2019. Six of the patient safety events were related to communication between telemetry patient nurses and telemetry technicians about telemetry patient movement. The OIG confirmed during interviews with nursing leaders and units 2N, 3N, and 2G nursing staff that in these six patient safety events, the patients' nurses did not notify the telemetry technicians when movement occurred, or the telemetry box was removed for activities such as patient showering. Nursing staff indicated during interviews that some reasons for the lack of notification included a high acuity patient assignment and patients leaving the inpatient area.

The OIG did not make a recommendation since there were few events over the period of two years and the global positioning system tracker provided a safety net for patient location in the event of an emergency.

Telemetry Initiation and Process

The required facility processes for initiating telemetry monitoring included the telemetry technician entering the patient's room number, unique telemetry box number, patient's last name, first name with middle initial, social security number, date of birth, and a note in the electronic health record indicating the initiation of telemetry.¹² Additionally, the patient's nurse was to call the Telemetry Studio and validate the correct telemetry box was connected to the correct patient, and verify the patient's waveform was transmitting.¹³

In 2018, facility leaders identified communication issues between nurses and telemetry technicians with initiating the telemetry monitoring processes and manual entry of patient demographic information.¹⁴ The OIG reviewed facility leaders' actions which included policy

¹¹ System Memorandum 626-12-111-14; System Memorandum 626-17-111-14.

¹² System Memorandum 626-12-111-14; System Memorandum 626-17-111-14.

¹³ System Memorandum 626-12-111-14; System Memorandum 626-17-111-14.

¹⁴ System Memorandum 626-12-111-14; System Memorandum 626-17-111-14.

revisions and staff training and noted overall improvement since staff training in February 2019; therefore, made no recommendation.

Initiation of the Rapid Response Team

During staff interviews, the OIG found that telemetry staff initiated a rapid response team call if unable to communicate the patient's arrhythmias to the patient's nurse or the unit's charge nurse.

The system's rapid response team policy outlines that activation of the rapid response team can be done for severe changes in airway, breathing, circulation, neurologic, or other urgent issues or concerns. The policy further defines the staff nurse assigned to the patient or the charge nurse as the person to initiate the rapid response team.¹⁵

Telemetry technicians told the OIG they would initiate a rapid response team call if a patient had a change of condition and they were unable to contact the patient's nurse or charge nurse to evaluate the patient, which deviated from the policy. Nursing leaders told the OIG that if the patient's nurse or the charge nurse were unable to be reached when a patient's condition changed, that the appropriate action was to initiate a rapid response team call. The Clinical Nurse Educator informed the OIG that the process for initiating a rapid response team call was covered in employee orientation and reinforced during team huddles.

Telemetry technicians expressed concerns with computer access, which was used to activate a rapid response team call. The Telemetry Studio had two computers available to initiate a rapid response team call with one located behind the telemetry monitors, requiring the telemetry technician to turn away from the telemetry monitoring area, and the second computer located at the end of the telemetry monitoring area. During a tour of the Telemetry Studio, a telemetry technician demonstrated the process to initiate a rapid response team call. The OIG determined when a technician was activating a rapid response team call, another technician was available to oversee and respond to any additional patient waveform audible alarms.

The OIG determined that the rapid response team policy and staff practice regarding the initiation of a rapid response team call did not always align; alignment of policy and practice is important to mitigate system vulnerabilities. The patient's nurse or charge nurse may not be available to evaluate the patient, resulting in telemetry technicians initiating a rapid response team call to address the patient's arrhythmia. To reduce confusion among staff, the system policy should reflect practice.

¹⁵ System Memorandum 626-16-118-01. *Rapid Response Team*, December 31, 2015. The term initiate is associated with the evaluation by the patient's nurse or charge nurse to determine if a rapid response team call is needed; the term activate is the process of nurse or designee making a rapid response team call according to system memorandum.

3. Telemetry Monitoring Staffing and Training

The OIG did not substantiate staffing shortages or the alleged inadequate training of staff performing telemetry monitoring.

Staffing

At the time of the allegations, the 2017 system policy indicated a telemetry technician staffing ratio of 1 to 25 patient waveforms.¹⁶ However, in January 2019, the 2N Nurse Manager sent an email communication to telemetry technicians informing them of an increased staffing ratio of one telemetry technician to 32 patient waveforms.¹⁷ On December 31, 2019, the system updated the policy and removed language providing the ratios for telemetry technician to patient waveforms and instead included a required minimum of two telemetry technicians each shift.¹⁸ On January 6, 2020, the VISN 9 Director approved an executive decision memo stating that a telemetry technician would be responsible for no more than 48 patient waveforms.

During interviews, telemetry technicians did not provide instances when a telemetry technician monitored more than 32 patient waveforms at one time since January 2019. The OIG determined that the system followed the VISN publication specific to cardiac monitoring in the Telemetry Studio. The number of assigned telemetry technicians per shift for the Telemetry Studio included three during the day and two during the night shift. Revisions to the 2019 system policy removed the ratios for telemetry technician to patient waveforms and instead stated that two technicians would be on each shift. Since the system had the maximum capacity of 96 patient waveforms monitored, each telemetry technician could monitor up to 48 patient waveforms.¹⁹

Training

The 2017 and the 2019 system policies both required telemetry technicians to complete an arrhythmia recognition course, a basic cardiac life support certification course, and telemetry technician competencies.²⁰ Clinical staff, who have direct clinical contact, are required to complete basic cardiac life support training.²¹

The OIG reviewed training and competency records and determined telemetry technicians, and registered nurses, licensed practical nurses, and nursing assistants from units 2N, 2G, and 3N had

¹⁶ System Memorandum 626-17-111-14.

¹⁷ The 2N Nurse Manager supervises the Telemetry Studio staff.

¹⁸ System Memorandum 626-12-111-14.

¹⁹ System Memorandum 626-12-111-14.

²⁰ System Memorandum 626-17-111-14; System Memorandum 626-12-111-14.

²¹ System Memorandum 626-19-001ED-13, *Basic Life Support (BLS) And Advanced Cardiac Life Support (ACLS) Training*. August 1, 2019.

the required basic cardiac life support certifications through the Resuscitation Quality Improvement/American Heart Association.²² In addition, all telemetry technicians completed a basic arrhythmia course and competencies specific to telemetry. Some registered nurses also completed advanced cardiac life support through the American Heart Association although it was not a system requirement for telemetry staff.²³

A member of the staff expressed concerns about the competency of another staff member who was placed on light duty and assigned to the Telemetry Studio. The OIG determined, after confirming with nursing leaders, that only one light duty staff member had been assigned to telemetry monitoring. Interviews and review of specific telemetry training and competencies document that the light-duty staff met the required training and competency requirements as outlined in the system policy to serve as a telemetry technician.

4. Staff Knowledge and Care of Telemetry Patients with DNR Orders

The OIG did not substantiate that telemetry patients with DNR orders who developed arrhythmias were not treated, or that nursing staff had knowledge deficits related to the care of telemetry patients with DNR orders. During interviews and document reviews, the OIG was unable to identify telemetry patients with DNR orders who did not receive clinically appropriate interventions.

VHA policy requires that patients with DNR orders receive clinically appropriate emergency interventions short of cardiopulmonary resuscitation.²⁴ Clinically appropriate interventions include medications, hydration, oxygen therapy, and clearing of a blocked airway. There is no distinction made for telemetry patients with DNR orders.

In the absence of identified patients, the OIG interviewed telemetry technicians, nursing staff, and clinical leaders about the handling of arrhythmias in a telemetry patient with a DNR order. Telemetry technicians presented different perceptions of an event that happened over two years prior to the OIG visit in which a nurse was asked to assess a patient with an elevated heart rate and a DNR order. Both technicians concurred that there may have been a delay in care; however, the OIG was unable to validate the delay as the telemetry technicians were unable to recall the patient's name.

Clinical leaders described nursing staff as knowledgeable regarding their appropriate treatment of telemetry patients with DNR orders. During OIG interviews, aside from the event that occurred about two years prior to the OIG visit, nursing staff and telemetry staff could not recall

²² The VA Talent Management System web site is intended for VHA staff online access to education and training courses. The arrhythmia recognition training courses were provided through the Talent Management System.

²³ System Memorandum 626-19-001ED-13.

²⁴ VHA Handbook 1004.03, *Life-Sustaining Treatment Decisions: Eliciting, Documenting and Honoring Patients' Values, Goals and Preferences*, January 11, 2017.

instances in which a telemetry patient with a DNR order did not receive clinically appropriate emergency intervention; or when nursing staff commented on a telemetry patient's DNR order in response to a notification by telemetry staff of a patient's arrhythmia.

The OIG determined that telemetry technicians and nursing staff understood that telemetry patients with DNR orders should receive clinically appropriate interventions.

5. Reusable Medical Equipment

While conducting a tour of the Telemetry Studio, the OIG identified improper RME practices with the return of used and contaminated telemetry boxes and the location of clean supplies storage. The OIG observed non-telemetry staff placing used and contaminated telemetry boxes into a receptacle located directly in front of a storage shelf of clean supplies in the Telemetry Studio (see figure 1).



*Figure 1. Telemetry Studio-used telemetry boxes in yellow lined receptacle
Source: VA OIG; Nashville, TN. 1:52 p.m., January 10, 2020.*

According to VHA and system policies, RME includes a device or equipment intended for repeated use on different patients with appropriate decontamination and other processing between uses.²⁵ Non-critical RME are devices or equipment that come into contact with intact skin.²⁶ The system identified telemetry boxes as non-critical RME. VHA policy requires facilities to have designated areas for contaminated RME, and a separate area for clean supplies. System policy requires that non-critical RME have a defined process and schedule for cleaning, and identification of responsible person(s) for each clinical and ancillary service area who conducts the cleaning.²⁷

The OIG team made system leaders aware of the RME concern and system leaders initiated corrective actions while the OIG was on-site. System leaders developed a written standard operating procedure outlining how to clean telemetry boxes once removed from the patient and prior to return to the Telemetry Studio to aid in the prevention of hospital acquired infections.²⁸ While on-site, the OIG received an email from system leaders, and were subsequently told by staff interviewed after the OIG site visit, that used telemetry boxes were no longer being cleaned in the Telemetry Studio.

The OIG reviewed training records and verified that units 2N, 2G, and 3N nursing staff were trained on the cleaning of telemetry boxes and accessories as outlined in the written standard operating procedure.²⁹ The OIG determined that no further action was indicated due to the immediate steps taken by system leaders.

Conclusion

The system's 2017 telemetry monitoring and practices policy was not outdated. In addition, the 2017 and 2019 system policies reflected the most recent American Heart Association Scientific Statements for telemetry monitoring and practices.

The OIG identified a few isolated communication issues between telemetry technicians and telemetry patient nurses and the specific location and movement of telemetry patients while in the hospital. The OIG did not make a recommendation since an electronic patient tracking system was available in case of an emergency.

²⁵ VHA Directive 11116(2), *Sterile Processing Services (SPS)*, March 23, 2016; System Memorandum 626-17-SPS-01, *Guidelines for Cleaning, Disinfecting and Sterilizing of Reusable Medical Equipment (RME)*. June 15, 2017.

²⁶ VHA Directive 11116(2).

²⁷ System Memorandum 626-17-SPS-01.

²⁸ Alice Reshamwala, McBroom K, Yong II Choi, et al, "Microbial Colonization of Electrocardiographic Telemetry Systems Before and After Cleaning," *American Journal of Critical Care* 22, no.5. (September 2013): 382-389. The study indicated that a standardized cleaning protocol significantly reduces pathogens on telemetry boxes.

²⁹ Reshamwala et. al, 2013.

In addition, in 2018, facility leaders identified other communication issues with the processes for correct entry of patient demographics, validation of correct patient telemetry box placement, and verification of waveform transmission to the telemetry system. The OIG reviewed facility leaders' actions, which included policy revisions and staff training and noted overall improvement since February 2019. The OIG made no recommendation.

The rapid response team policy and staff practice regarding the initiation of a rapid response team call did not always align. Alignment of policy and practice is important to mitigate system vulnerabilities. The system's rapid response team policy outlines that activation of the rapid response team can be done for severe changes in airway, breathing, circulation, neurologic, or other urgent issues or concerns. The policy further defines the staff nurse assigned to the patient or the charge nurse as the person to initiate the rapid response team. However, when a patient's nurse or charge nurse was not available to evaluate the patient, the telemetry technicians' practice was to initiate a rapid response team call to address a patient's arrhythmia. To reduce confusion among staff, the system policy should reflect practice.

The OIG did not identify staffing shortages or inadequate training of staff performing telemetry monitoring. The system policy aligned with a January 2020 VISN publication specific to staffing for cardiac monitoring in the Telemetry Studio. Since the system has the maximum capacity of 96 patient waveforms monitored at any given time, each telemetry technician could monitor up to 48 patient waveforms. The OIG reviewed training and competency records and determined telemetry technicians, and registered nurses, licensed practical nurses, and nursing assistants from units 2N, 2G, and 3N had the required training and competencies for telemetry monitoring.

Telemetry patients with DNR orders, who developed arrhythmias, received clinically appropriate interventions. Telemetry technicians and nursing staff understood that telemetry patients with DNR orders should receive clinically appropriate interventions.

While conducting a tour of the Telemetry Studio, the OIG identified improper RME practices related to the return of used and contaminated telemetry boxes and the storage location of clean supplies. However, no further action was indicated due to the immediate steps taken by system leaders including a written standard operating procedure and evidence of staff training for cleaning prior to return of the telemetry box to the Telemetry Studio.

Recommendation

The Tennessee Valley Healthcare System Director ensures consistency between the system's policy and actual practice for initiation of a rapid response team call.

Appendix A: VISN Director Memorandum

Department of Veterans Affairs Memorandum

Date: June 19, 2020

From: Director, VA MidSouth Healthcare Network (10N9)

Subj: Healthcare Inspection—Alleged Deficiencies within Cardiac Telemetry Monitoring Service at the Nashville VA Medical Center in Tennessee

To: Director, Hotline Team 3 (54HL03)

Director, GAO/OIG Accountability Liaison Office (VHA 10EG GOAL Action)

1. I have reviewed the findings and recommendations in the OIG draft report entitled, Healthcare Inspection-Alleged Deficiencies within Cardiac Telemetry Monitoring Services. I concur with the actions taken by Tennessee Valley Healthcare System.
2. If you have any questions or require additional information, please contact the VISN 9 Quality Management Officer at 615-695-2143.

(Original signed by:)

Cynthia Breyfogle, FACHE

Appendix B: Facility Director Memorandum

Department of Veterans Affairs Memorandum

Date: June 23, 2020

From: Health System Director (626/00)

Subj: Healthcare Inspection—Alleged Deficiencies within Cardiac Telemetry Monitoring Service at the Nashville VA Medical Center in Tennessee

To: Network Director (10N9)

1. Tennessee Valley Healthcare System Leadership reviewed and revised the Rapid Response Team Policy upon notification of the inconsistency between policy and practice. The policy has been signed and publicized. Upon receipt of the report, Leadership reviewed the policy again and have identified further areas to improve upon. Revisions are in progress.
2. We thank the Office of the Inspector General for the thorough review of the Cardiac Telemetry Monitoring Service and the recommendation to improve our practices in the delivery of safe, quality care to our Veterans.

(Original signed by:)

Jennifer L. Vedral-Baron, MN, ARNP, NP-C, FAANP
FACHE Health System Director

System Director Response

Recommendation

The Tennessee Valley Healthcare System Director ensures consistency between the system's policy and actual practice for initiation of a rapid response team call.

Concur.

Target date for completion: July 2020

Director Comments

The Health System Memorandum, 626-16-188-01 Rapid Response Team, was revised to reflect practice at Tennessee Valley Healthcare System. The revised Health System Memorandum, 626-19-118-01 Rapid Response Team, was approved on February 21, 2020 by the Health System Director and is published on the Intranet Policy site.

Upon receipt of the Office of the Inspector General Report on June 10, 2020, Leadership reviewed the revised policy. Upon review it was noted that all responsibilities in the policy were not updated. The policy has been amended and is on the Cardiopulmonary Resuscitation Committee agenda for review and concurrence June 24, 2020. It will be routed for review and Health System Director approval not later than July 15, 2020.

OIG Contact and Staff Acknowledgments

Contact	For more information about this report, please contact the Office of Inspector General at (202) 461-4720.
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