VETERANS HEALTH ADMINISTRATION

Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center in Houston, Texas

Executive Summary

The VA Office of Inspector General (OIG) conducted an inspection at the Michael E. DeBakey VA Medical Center (facility) in Houston, Texas, in response to an anonymous allegation that community living center (CLC) staff delayed life-sustaining treatment for a patient (Patient A) who was experiencing cardiac arrest and died. During the inspection, the OIG team received an allegation regarding a second patient (Patient B) who had resuscitation initiated by facility inpatient staff despite an active *do not resuscitate* (DNR) order in the electronic health record (EHR).

Patient A

In early February 2020, Patient A was admitted to the facility's surgical intensive care unit for a surgical procedure, and in late February, transferred to the facility's CLC unit. In mid-April, a CLC provider documented a life-sustaining treatment discussion with Patient A, entered a DNR order in the EHR, and documented the placement of a purple DNR armband (indicating that resuscitation should not be performed).
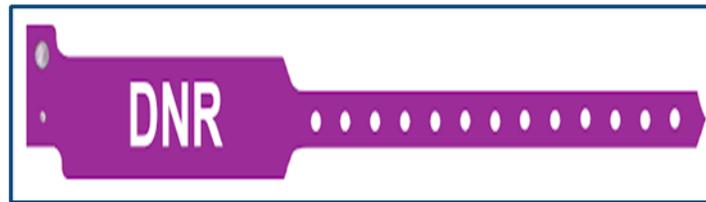

Figure 1. Example of a purple DNR armband.
Source: "The Color of Safety Standardization and Implementation Manual,"
Wisconsin Hospital Association.[1]

During an inpatient surgical procedure one month later, a surgical resident discussed with and changed Patient A's code status from DNR to a full code status (indicating that resuscitation should be performed); however, nursing staff documented that the patient was wearing the DNR armband. In late May, Patient A was transferred back to the CLC. During the next year, which included a return to the inpatient unit for surgery, CLC staff documented the presence of a DNR armband multiple times while Patient A was designated a full code status in the EHR.

In early June 2021, a CLC nurse went into Patient A's room and found him pulseless. The CLC nurse identified Patient A as DNR after checking a report sheet and based on the presence of the DNR armband but did not verify the patient's code status in the EHR, which caused a delay in

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[1] Wisconsin Hospital Association, "The Color of Safety Standardization and Implementation Manual," accessed December 7, 2021, https://www.wha.org/WisconsinHospitalAssociation/media/WHACommon/Health%20Care/PDFs/Wristband_Color_Codes.pdf.

resuscitation efforts. The rapid response team discovered Patient A did not have an active DNR order in the EHR upon their arrival and initiated resuscitative efforts after contacting Patient A's next of kin. The team was unable to resuscitate Patient A and resuscitative efforts were discontinued.[2] The OIG substantiated that a CLC nurse delayed initiation of resuscitation efforts for Patient A who did not have an active DNR order in the EHR. The OIG could not determine whether resuscitation efforts would have been successful if employed without a delay.

The OIG examined facility staff's failure to identify and correct the discrepancy between the absence of a DNR order and the presence of a DNR armband prior to the code event. Causes contributing to the failure included changes in Patient A's code status, poor communication of code status between transfers of care, and lack of verification of DNR armbands with a DNR order. Due to inconsistencies in documentation, the OIG was unable to determine whether CLC staff became aware of Patient A's code status change and how long Patient A had been wearing a purple DNR armband prior to the code event.

Patient B

A facility provider admitted Patient B in early June 2021, and the next day documented a life-sustaining treatment discussion and entered a corresponding DNR order in the EHR before discharging Patient B mid-June. Upon readmission to the facility in early August 2021, an internal medicine resident documented in the EHR that Patient B was DNR. Two days later, an inpatient nurse found Patient B without a pulse (cardiac arrest) and due to the absence of a DNR armband, the inpatient nurse identified Patient B as a full code and a code blue was initiated. The code blue team performed resuscitative efforts until a code blue responder reviewed the EHR and identified Patient B's correct code status as DNR. The code blue team contacted Patient B's spouse who requested the code blue team continue resuscitative efforts. The team was unable to resuscitate Patient B and resuscitative efforts were discontinued.

The OIG substantiated that facility inpatient nursing staff attempted to resuscitate Patient B despite a documented life-sustaining treatment plan and a DNR order in the EHR.[3] Inpatient nursing staff relied on the absence of a purple DNR band as the source of Patient B's code status and relayed the incorrect code status to responding members of the code blue team during the patient's cardiac arrest.

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[2] Deonni Stolldorf and Cheryl Jones, "The Deployment of Rapid Response Teams in U.S. Hospitals," *The Joint Commission Journal on Quality and Patient Safety* 41, no. 4 (2015) 186-183. Rapid response teams are "expert clinicians who provide additional care for patients on acute care units who are experiencing unexpected, sudden changes in their conditions."

[3] VHA Handbook 1004.03(2), *Life-Sustaining Treatment Decisions: Eliciting, Documenting and Honoring Patients' Values, Goals and Preferences*, January 11, 2017. Patients and clinicians develop life-sustaining treatment plans to outline the patient's preferences for the interventions that will or will not be performed if the patient requires resuscitation and is unable to speak for themselves.

The OIG examined the possible contributing causes for facility staff's failures to identify and correct the discrepancy between the presence of a DNR order and the absence of a purple DNR armband prior to the event, including a DNR order display in the EHR. Using the EHR view demonstrated to the OIG, Patient B did not appear to have any life-sustaining treatment orders automatically defaulted to the top of the Orders tab.

If the life-sustaining treatment orders are not readily viewable at the top of the EHR Orders tab, a clinician may not be aware of the patient's current DNR status and a patient's wishes may not be followed.

The OIG could not confirm if Patient B was wearing a DNR armband at the time of the event. Due to interviewees' inconsistencies, the OIG was unable to confirm the presence or origin of a DNR armband reportedly found in Patient B's bed during the resuscitation. This case underscores the risks and vulnerabilities of staff relying on DNR armbands as the definitive source to confirm patients' life-sustaining treatment requests.

During the inspection, the OIG learned that facility staff conducted internal reviews to identify factors that contributed to the DNR identification errors that occurred with Patient A and Patient B. As a result of internal reviews, the Chief of Staff reported taking steps to update the facility memorandum on life-sustaining treatment, which included removing the use of DNR armbands in October 2021.

Additionally, the OIG found that a facility surgical resident did not follow Veterans Health Administration and facility policies that required an order including the specific procedure that would have an exception to the DNR order and identify parameters such as the patient's location within the facility and the procedure's time frame.

The OIG made one recommendation to the Under Secretary for Health related to reviewing the vulnerabilities of life-sustaining treatment and DNR processes within Veterans Health Administration facilities.

The OIG made five recommendations to the Facility Director related to staff's EHR verification of life-sustaining treatment orders and patients' code statuses, evaluation of corrective actions from management reviews, location of life-sustaining treatment orders within the EHR, modifications to patients' life-sustaining treatment orders during surgical procedures, and staff's review of patients' code statuses upon patients' return to facility units from surgical procedures.

VA Comments and OIG Response

The Deputy Under Secretary for Health Performing the Delegable Duties of the Under Secretary for Health and Veterans Integrated Service Network and Facility Directors concurred with the findings and recommendations and provided acceptable action plans (see appendixes A, B, and C). Based on information provided, the OIG considers recommendations 2, 3, 4, and 5 closed.

For the remaining open recommendations, the OIG will follow up on the planned actions until they are complete.

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Contents

Abbreviations

CPR	cardiopulmonary resuscitation
CLC	community living center
DNR	do not resuscitate
EHR	electronic health record
OIG	Office of Inspector General
VHA	Veterans Health Administration
VISN	Veterans Integrated Service Network

Introduction

The VA Office of Inspector General (OIG) conducted an inspection at the Michael E. DeBakey VA Medical Center (facility) in Houston, Texas, in response to an anonymous allegation that community living center (CLC) staff delayed life-sustaining treatment for a patient (Patient A) who experienced cardiac arrest and died.[1] During the inspection, the OIG team received an allegation regarding a second patient (Patient B) who had resuscitation initiated by facility inpatient staff despite an active *do not resuscitate* (DNR) order in the electronic health record (EHR).

Background

The facility, part of Veterans Integrated Service Network (VISN) 16, includes 11 community-based outpatient clinics located in Beaumont, Conroe, Galveston, Humble, Katy, Lake Jackson, Lufkin, Richmond, Sugar Land, Texas City, and Tomball, Texas.[2] The facility is classified by the Veterans Health Administration (VHA) as level 1a.[3] From October 1, 2020, through September 30, 2021, the facility served 122,514 unique patients and had a total of 533 operating beds, including 392 inpatient beds and 141 CLC beds. The CLC provides short- and long-term services, skilled nursing, palliative, and hospice care to residents who may have a variety of health conditions.[4]

Life-Sustaining Treatment

Patients have the right to identify a preference for recommended life-sustaining treatments and clinicians are obligated to uphold the patient's preferences.[5] VHA requires clinicians to proactively discuss treatment goals to ensure a patient's preferences regarding life-sustaining treatments are understood. During these "goals of care conversations," patients and clinicians develop life-sustaining treatment plans that include the patient's preferences for the interventions

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[1] VHA Handbook 1004.03(2), *Life-Sustaining Treatment Decisions: Eliciting, Documenting and Honoring Patients' Values, Goals and Preferences*, January 11, 2017. Life-sustaining treatment is defined as any medical treatment designed to extend the life of a patient who would otherwise die without medical intervention. This handbook was in effect at the time of the events for Patient A discussed in this report until it was amended May 10, 2021. The amended version contains similar language for life sustaining treatment and was in effect at the time of the events for Patient B.

[2] VA, "About the Michael E. DeBakey VA Medical Center - Houston, Texas," accessed September 9, 2021, https://www.va.gov/houston-health-care.

[3] VHA Office of Productivity, Efficiency and Staffing. "VHA Facility Complexity Model." The VHA Facility Complexity Model categorizes medical facilities based on patient population, clinical services offered, and educational and research missions, and complexity. Level 1a facilities are considered the most complex.

[4] VHA Handbook 1142.01, *Criteria and Standards for VA Community Living Centers (CLC)*, August 13, 2008.

[5] VHA Handbook 1004.03(2). The OIG considers the term *clinician* to include providers, physicians, and nurses who care for a patient.

that will or will not be performed if the patient requires resuscitation and is unable to speak during an emergency.[6]

Documentation of Patients' Preferences and Providers' Orders

Clinicians document patient resuscitation preferences in a life-sustaining treatment progress note in the patient's EHR.[7] These progress notes include instructions for whether facility staff will initiate cardiopulmonary resuscitation (CPR) in the event the patient experiences a sudden cardiac arrest.[8] Clinicians must also write a corresponding life-sustaining treatment order in the patient's EHR. DNR orders are one type of life-sustaining treatment order used if the patient elects not to receive CPR in the event of a cardiac arrest.[9] CPR should not be attempted in the event a patient is found in cardiac arrest with a DNR order. However, patients with a DNR order should still receive "clinically appropriate emergency interventions short of CPR (for example medications, fluids, oxygen, manual removal of an airway obstruction, or the Heimlich maneuver) unless otherwise specified."[10] Hospital staff often refer to the presence or absence of a DNR order in the patient's EHR as the patient's *code status*.[11] If a patient does not have a DNR order, they are considered a *full code*, and should be provided with emergency medical interventions such as CPR in the event of a cardiac arrest.[12]

DNR Armbands

Color-coded armbands, like the purple DNR armband used at this facility, are used in VA and non-VA hospitals throughout the nation to alert hospital staff to a patient's health care condition or safety risk. While several different armband colors can be used to designate a particular

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[6] VHA Handbook 1004.03(2). *Merriam-Webster.com Dictionary*, "resuscitation," accessed December 5, 2021, https://www.merriam-webster.com/dictionary/resuscitation. "The act or an instance of reviving someone from apparent death or from unconsciousness."

[7] VHA Handbook 1004.03(2).

[8] Mayo Clinic, "Cardiopulmonary Resuscitation (CPR): First Aid," accessed September 21, 2021, https://www.mayoclinic.org/first-aid/first-aid-cpr/basics/art-20056600. Cardiopulmonary resuscitation is type of lifesaving technique used in an attempt to maintain oxygen-rich blood flow to the brain and organs when a patient's breathing or heartbeat has stopped. Mayo Clinic, "Sudden Cardiac Arrest," accessed September 21, 2021, https://www.mayoclinic.org/diseases-conditions/sudden-cardiac-arrest/symptoms-causes/syc-20350634. "Sudden cardiac arrest is the abrupt loss of heart function, breathing and consciousness," typically due to an electrical disturbance in the heart. Sudden cardiac arrest can lead to death if not treated immediately.

[9] VHA Handbook 1004.03(2). The terms *do not resuscitate (DNR)*, *do not attempt to resuscitate*, *No-CPR*, and *No-Code* are used synonymously. For the purpose of this report, the acronym DNR will be used.

[10] VHA Handbook 1004.03(2).

[11] Lauris Kaldjian and Ann Broderick, "Developing a Policy for Do Not Resuscitate Orders Within a Framework of Goals of Care." *The Joint Commission Journal on Quality and Patient Safety*, 37, no. 1 (January 2011):11–19.

[12] VHA Handbook 1004.03(2). VHA National Center for Ethics in Health Care, "FAQs [Frequently Asked Questions] for Health Care Facilities Implementing the Life-Sustaining Treatment Decisions Initiative." A *full code* is a term used to indicate that a patient should be resuscitated in case of a cardiac or respiratory arrest.

meaning, purple is typically used to identify patients with DNR preferences (see figure 1). Ideally, hospital staff are alerted by the presence of a purple DNR armband to check the patient's EHR for information related to life-sustaining treatment preferences.[13]
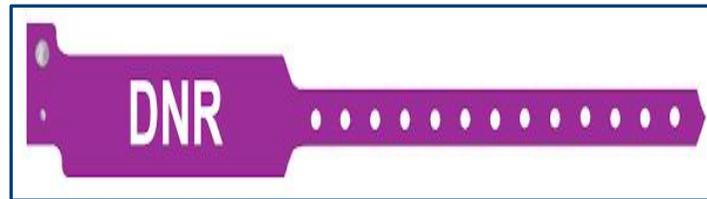

Figure 1. Example of a purple DNR armband.
Source: "The Color of Safety Standardization and Implementation Manual,"
Wisconsin Hospital Association.[14]

Allegations and Related Concerns

The OIG received an anonymous complaint in June 2021 that alleged facility CLC staff delayed initiating life-sustaining treatment for Patient A, contributing to the patient's death. It was also alleged that Patient A was found wearing a DNR band on the left wrist without an active DNR order in the EHR.

During the inspection, the OIG team received an allegation that inpatient staff attempted to resuscitate a second patient (Patient B) who had an active DNR order in the EHR. This patient died in August 2021. The OIG also identified additional concerns related to the use of DNR armbands and the suspension of DNR orders in the operating room.

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[13] American Hospital Association, "Implementing Standardized Colors for Patient Alert Wristbands," September 4, 2008, accessed December 7, 2021, https://www.aha.org/system/files/advocacy-issues/tools-resources/advisory/2008/080904-quality-adv.pdf. The terms *wristband* and *armband* are used synonymously. For the purpose of this report, the term armband is used.

[14] Wisconsin Hospital Association, "The Color of Safety Standardization and Implementation Manual," accessed December 7, 2021, https://www.wha.org/WisconsinHospitalAssociation/media/WHACommon/Health%20Care/PDFs/Wristband_Color_Codes.pdf.

Scope and Methodology

The OIG initiated the inspection on July 1, 2021. Due to COVID-19, a virtual site visit was conducted August 9–25, 2021, to evaluate allegations regarding Patient A. A second virtual site visit was conducted October 18–November 2, 2021, to evaluate allegations regarding Patient B.[15]

The OIG interviewed the facility's Chief of Staff; Associate Director of Patient Care Services; Deputy Associate Director of Patient Care Services; Director, Quality, Safety and Value; Patient Safety Program Manager; Patient Safety Manager; Risk Manager; CLC Medical Director and Chief Nurse; CLC providers, nurse manager, nursing staff, and social work staff; internal medicine attending physician and resident; neurology and rehabilitation unit nurse managers and nursing staff; a code blue team resident and rapid response team providers; and the Chair, Cardiopulmonary Resuscitation Committee. Additionally, a nurse executive from VHA's National Center for Patient Safety was interviewed. The OIG team also corresponded via email with a facility informatics specialist.

The OIG reviewed Patient A's EHR entries from early 2020 through early June 2021; and Patient B's EHR entries from June through August 2021. The OIG also reviewed VHA and facility policies; the facility's administrative investigations, quality management reviews and responses, and organizational charts; and The Joint Commission's relevant standards.

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. 1101, 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.

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[15] The site visits were conducted virtually due to COVID-19. World Health Organization, *Naming the Coronavirus Disease (COVID-19) and the Virus that Causes It,* accessed on August 18, 2021, https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it. COVID-19 (coronavirus disease) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

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

Hospital staff errors regarding DNR preferences are well documented in medical literature and are not unique to VA.[16] Failure by clinical staff to adequately identify patients with DNR orders has resulted in the resuscitation of patients who have elected to not be resuscitated, or in resuscitation being incorrectly withheld for those who elected to be resuscitated, despite patients' documented DNR preferences.[17] This report highlights two patients' cases where VHA life-sustaining treatment practices failed to adequately fulfill the intended purposes of supporting patient preferences and avoiding unwanted interventions at the end of life.[18]

1. Delayed Resuscitation Efforts for Patient A

The OIG substantiated that a CLC nurse delayed initiation of resuscitation efforts for Patient A who did not have an active DNR order in the EHR. The OIG found that the CLC nurse identified Patient's A's code status after checking a report sheet and based on the presence of a purple DNR armband but did not verify DNR orders in the EHR, which caused a delay in resuscitation efforts. The OIG could not determine whether resuscitation efforts would have been successful if employed without a delay.

Facility policy requires that staff attempt resuscitation on every patient who sustains a cardiac arrest and does not have a documented DNR order in the EHR. The facility's clinical staff identify patients with active DNR orders using a DNR armband.[19]

Table 1 illustrates Patient A's EHR code status documentation and DNR armband usage over a 16-month period, from early 2020 to late spring 2021 (the date of Patient A's code event).

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[16] Jacqueline Yuen, M. Carrington Reid, and Michael Fetters, "Hospital Do-Not-Resuscitate Orders: Why They Have Failed and How to Fix Them." *Journal of General Internal Medicine* 26, no. 7 (2011): 791–7. Ghania Haddad et al., "A descriptive analysis of obstacles to fulfilling the end of life care goals among cardiac arrest patients." *Resuscitation Plus* 8 (2021).

[17] Niraj Sehgal and Robert Wachter, "Identification of Inpatient DNR Status: A Safety Hazard Begging for Standardization." Journal of Hospital Medicine 2, no. 6 (Nov/Dec 2007).

[18] Jacqueline Yuen, M. Carrington Reid, and Michael Fetters, "Hospital Do-Not-Resuscitate Orders: Why They Have Failed and How to Fix Them." *Journal of General Internal Medicine* 26, no. 7 (2011): 791–7.

[19] Facility Memorandum No. 11-046, Life-Sustaining Treatment Decisions: Eliciting, Documenting and Honoring Patients' Values, Goals and Preferences, March 20, 2018.

Table 1. Timeline of Patient A's Code Status and DNR Armband EHR Documentation

Date 2020	Action
Early February	Patient A admitted to the facility's surgical intensive care unit
Late February	Patient A transferred to the facility's CLC
Mid-April	CLC nurse practitioner documented life-sustaining treatment discussion with Patient A CLC nurse practitioner entered corresponding DNR order CLC nurse documented Patient A had a DNR armband in place
Mid-May	Patient A transferred to the inpatient unit for surgery Surgical resident documented that the DNR order was suspended for the surgical procedure Patient A transferred to the surgical intensive care unit post-operatively Surgical intensive care unit nurse documented Patient A has DNR armband in place
Mid-May	Surgical intensive care unit staff documented that Patient A's code status needs clarification
Mid-May	Surgical intensive care unit nurse practitioner documented life-sustaining treatment discussion with Patient A Surgical intensive care unit nurse practitioner discontinued DNR order Patient A now designated a full code status
Late May	Patient A transferred back to the CLC
Early June	CLC nurse practitioner documented Patient A is full code in a monthly progress note
Mid-June	Patient A returned to the main facility for a second surgical procedure Surgical resident documented Patient A's code status as full code
Early July	Patient A transferred back to the CLC
August through December	CLC nurse practitioners documented Patient A is full code in monthly progress notes
Date 2021	**Action**
January and February	CLC nurse practitioners documented Patient A is full code in monthly progress notes
Late March	CLC staff documented Patient A has DNR armband in place
April and May	CLC nurse practitioners documented Patient A is full code in monthly progress notes
Early June	CLC nurse discovered Patient A pulseless, absent respiratory effort CLC nurse identified patient as DNR after checking a report sheet and based on presence of a DNR armband on patient but did not verify the patient's code status in the EHR Rapid response team called by a CLC nurse "for pronouncement of death per RN [registered nurse] staff stating that the patient is a DNR"*

	Rapid response team discovered Patient A did not have an active DNR order in the EHR
	Rapid response team member contacts Patient A's next of kin; however, the next of kin was unaware of the patient's wishes
	Code blue initiated
	Resuscitation efforts halted after 17 minutes of CPR

Source: OIG analysis of the patient's EHR and facility staff interview statements.
*Deonni Stolldorf and Cheryl Jones, "The Deployment of Rapid Response Teams in U.S. Hospitals," The Joint Commission Journal on Quality and Patient Safety 41, no. 4 (2015) 186-183. Rapid response teams are "expert clinicians who provide additional care for patients on acute care units who are experiencing unexpected, sudden changes in their conditions."

Causes Contributing to the Event

The OIG examined facility staff's failure to identify and correct the discrepancy between the absence of a DNR order and the presence of a DNR armband prior to the event. Causes contributing to the failure included change in code status, communication of code status, and lack of verification of DNR armbands.

Change in Code Status

The OIG found that Patient A's code status changed from DNR to full code during an inpatient surgical procedure in May 2020. Due to inconsistencies in documentation, the OIG was unable to determine whether CLC staff became aware of Patient A's code status change and how long Patient A had been wearing a DNR armband prior to the code event in early June 2021. The OIG found no documentation that CLC staff reviewed or discussed Patient A's change in code status from a DNR to a full code when the patient returned to the CLC from the first surgery, although this change had been documented in the patient's EHR by the CLC nurse practitioner.

VHA policy requires that life-sustaining treatment orders, such as DNR, remain in effect unless providers revise a life-sustaining treatment plan. Patient movements within the facility, such as a transfer from one level of care to another, do not cause life-sustaining treatment orders to automatically discontinue or expire. Providers are not required to update life-sustaining treatment orders; however, clinicians may renew an order in the EHR to show it has been reviewed.[20]

Facility leaders and staff attributed the change in Patient A's code status in May 2020 as a potential cause in the misidentification of the code status that occurred during the patient's cardiac arrest approximately one year later. A CLC staff member stated that code status information is provided to receiving staff when a patient is being transferred out of the CLC, but CLC staff are not required to review code status when a patient is returned to the CLC. CLC

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[20] VHA Handbook 1004.03(2).

leaders reported that a full admission note, which would include a life-sustaining treatment discussion, is not required when the patient has been absent from the CLC for 30 days or less.[21]

The OIG determined that CLC staff missed the opportunity to review Patient A's code status when the patient returned to the CLC between the two inpatient transfers. Without a full admission note requirement upon readmission to the CLC, a life-sustaining treatment discussion among CLC staff did not ensue.

Communication of Code Status

The OIG found that CLC staff did not have a consistent method of communicating Patient A's code status during transfers of care, such as staff's shift change, facility unit transfers, and other hand-offs. The OIG was unable to determine whether CLC staff communicated Patient A's code status during transfers of care.

Medical literature states that formalized hand-off communication processes reduce the risk for patient harm and provide an opportunity for staff to discuss patient information.[22]

The CLC Medical Director explained that CLC staff did not have an established process of verbal communication with other providers during patient transfers. A CLC physician stated that providers "usually" communicate code status during hand-offs at the time of a patient's transfer. A CLC nurse practitioner reported that providers do not consistently communicate code status during patient transfer.

The Extended Care Line Nurse Executive (Nurse Executive) stated that CLC nurses are expected to discuss patient code status during shift change and hand-offs. The Nurse Executive described patient admission, transfer, and discharge as additional opportunities for CLC nurses to review code status and expressed concern that CLC nursing staff had sometimes assumed care of a patient without getting a full shift report. The Nurse Executive further detailed taking steps to address communication issues that may have contributed to the event to prevent recurrence.

CLC nursing staff described their practice was to identify DNR patients at the start of the shift. However, the practice of including reports of patients' code status did not begin until changes were made after Patient A's death.

According to CLC leaders, CLC patient code status discussions also occurred during interdisciplinary team meetings. The frequency of interdisciplinary meetings varied per CLC

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[21] Facility Memorandum No. 11-022, *Patient Assessment Plan*, May 23, 2020.

[22] Cheryl Holly and Eileen B. Poletick, "A systematic review on the transfer of information during nurse transitions in care," *Journal of Clinical Nursing* 23, (2013): 2387-2396. Patricia D. Jackson et al., "Evidence Summary and Recommendations for Improved Communication during Care Transitions," *Rehabilitation Nursing* 41, no. 3, (2016): 135-148. The Joint Commission, *Sentinel Alert Event-58*, "Inadequate Hand-off Communication," September 12, 2017.

patient; Patient A's interdisciplinary team meetings occurred quarterly. The OIG found during the nearly one-year period between February 2020 and May 2021, the discussion of Patient A's code status was documented during the March and May 2021 CLC interdisciplinary team meetings.

The OIG determined that CLC staff failed to communicate Patient A's code status during transfers of care including the two patient transfers into the CLC, patient hand-offs, shift changes, and interdisciplinary team meetings.

Verification of DNR Armbands Not Required

The OIG learned that CLC staff were not required to document or reconcile the presence of a DNR armband with a DNR order. Due to documentation inconsistencies, the OIG could not confirm the time frame that Patient A had been wearing a DNR armband with a full code status prior to the patient's code event.

After Patient A's surgical procedure in May 2020, a surgical intensive care unit nurse documented that Patient A was wearing a DNR armband. The OIG could not determine from a review of Patient A's EHR if surgical intensive care unit staff removed the patient's DNR armband to align with the patient's new full code status. The OIG could not determine if Patient A was wearing a DNR armband upon readmission to the CLC after the first surgery. After the patient's second surgery, CLC staff did not document the presence of a DNR armband upon Patient A's transfer back to the CLC.

The OIG found that CLC nursing staff documented the presence of a DNR armband multiple times between the patient's discharge from the first surgical procedure in May 2020, and the patient's death a year later, while Patient A was designated a full code status in the EHR.

During an interview, the CLC nurse who discovered Patient A unresponsive, could not recall if the patient had been wearing a DNR armband prior to that day. The CLC nurse acknowledged failing to confirm Patient A's DNR armband with a DNR order in the EHR. A CLC nurse leader discussed looking in the EHR for a mention of the DNR armband after the event. The nurse leader stated that, if CLC nursing staff were paying attention, they could have noticed that the DNR armband did not match the order and corrected the discrepancy on the day the patient was readmitted to the CLC.

A facility leader reported an administrative fact-finding review was completed to investigate the events surrounding the death of Patient A. The OIG reviewed the fact-finding, which identified a lack of processes concerning documentation and review of DNR patients upon admission and readmission to the CLC. The fact-finding identified that a "heavy reliance on presumed code status" in the EHR "without physical verification of patients' arm band by nurses." The fact-finding team made a recommendation to initiate a process for CLC nurses to observe and verify CLC patient DNR armbands.

During interviews, CLC nursing leaders and staff reported using the EHR to verify a patient's DNR status. CLC staff told the OIG it was an option to record the presence of armbands in the EHR, but that option could be skipped when completing the documentation. CLC nurse leaders reported nurses were responsible for removing the DNR armband if there was a change in a patient's code status.

The OIG determined that CLC nursing staff failed to reconcile Patient A's DNR order with the presence of a DNR armband. The EHR order remained the staff's definitive source for confirmation of a patient's code status.

2. Attempted Resuscitation Efforts for Patient B

The OIG substantiated that facility inpatient nursing staff attempted to resuscitate Patient B who had a documented life-sustaining treatment plan and a DNR order in the EHR. Neurology-rehabilitation (inpatient nursing) staff relied on the absence of a DNR band as the source of Patient B's code status and relayed the incorrect code status to responding members of the code blue team during the patient's cardiac arrest. The code blue team performed resuscitative efforts until a responding medical resident identified Patient B's correct status as DNR upon reviewing the EHR.

VHA requires that facilities have protocols in place to ensure that resuscitative interventions, such as CPR, are not attempted with patients who experience cardiac arrest and have DNR orders documented in the EHR.[23] Staff use purple armbands to identify patients with DNR orders but do not use any type of armband to identify patients with a full code status.[24] Table 2 shows the timeline of Patient B's care to illustrate the chronology of events.

Table 2. Timeline of Patient B's Code Status and DNR Armband Documentation

Date 2021	Action
Early June	Patient B admitted to facility
Early June	Attending physician documented in EHR life-sustaining treatment discussion with Patient B's spouse Attending physician entered the corresponding DNR order
Mid-June	Patient B discharged to home
Early August	Patient B presented to the facility's Emergency Department Patient B admitted to the inpatient neurology-rehabilitation unit for medical observation* Patient B transferred to the medical step-down unit

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[23] VHA Directive 1177, *Cardiopulmonary Resuscitation*, January 4, 2021.

[24] Facility Memorandum No. 11-046.

	Internal medicine resident documented in Patient B's admission history and physical that the patient was a DNR/Do Not Intubate
Early August	Internal medicine resident evaluated Patient B and documented "Advanced Directives/Code Status: Do Not Resuscitate (DNR)"
Early August	Inpatient nurse documented Patient B's seizure-like activity and that the patient was without a pulse (cardiac arrest)
	Due to the absence of a DNR armband, an inpatient nurse identified Patient B as full code
	Code blue initiated
	Code blue responder (internal medicine resident) discovered the EHR DNR order
	Internal medicine resident contacted Patient B's wife who requested the code blue team continue resuscitative efforts
	Code blue team members discontinued resuscitative efforts after the team was unable to resuscitate Patient B

Source: OIG analysis of Patient B's EHR.

* VHA Directive 1036, Standards for Observations in VA Medical Facilities, January 13, 2020. A medical observation patient is one "showing a sufficient degree of instability or disability that needs to be monitored, provided with a short term treatment, and re-assessed before a decision is made whether the patient requires further treatment in an acute care setting or can be discharged or assigned to care in another setting." For Patient B, this was an electronic transfer from observation status and did not require actual patient movement to another unit.

Causes Contributing to the Event

The OIG reviewed Patient B's EHR and determined the patient had a DNR order at the time of the code. The OIG examined the missed opportunities for facility staff to identify and correct the discrepancy between the presence of a DNR order and the absence of a DNR armband prior to the event.

DNR Orders Not Visible in EHR

The OIG learned through interviews that, during Patient B's admission, inpatient nursing staff incorrectly believed Patient B did not have a DNR order, treated the patient as having a full code status, and did not place a DNR armband on the patient. Inpatient nursing staff attributed the failure to correctly identify Patient B's DNR code status during his admission to a technical issue in the EHR. The OIG team reviewed facility patient safety and administrative review documents and interviewed facility staff. The OIG team learned that the transfer of Patient B from medical observation status to medical step down was believed to have caused the patient's medication orders to "fall off" and not be visible to staff after admission.

VHA requires that life-sustaining treatment orders do "not expire or automatically discontinue based upon dates, timeframes, or patient movements" unless modified via a revised

life-sustaining treatment plan.[25] Additionally, life-sustaining treatment orders, DNR, or do not intubate default to the top of the "Orders tab" in the EHR.[26] DNR information must also be included in life-sustaining treatment progress notes that are linked to the "Crises, Warnings, Allergies, and Advance Directives" or postings in the EHR.[27] Providers are not required to write an order to designate a full code status, as full code is the default code status for patients without a DNR order.[28]

The admitting attending physician and resident for Patient B recalled Patient B's code status as DNR/Do Not Intubate. The resident further explained that, due to Patient B's presenting symptoms of shortness of breath, the patient met criteria to rule-out a possible COVID-19 infection, thus requiring a transfer from medical observation status to medical step down. The resident noted that Patient B's medication orders "fell-off" but the DNR status remained from the Emergency Department admission orders. The internal medicine resident recalled that Patient B's life-sustaining treatment note was also viewable via the Crises, Warnings, Allergies, and Advance Directives posting. The night-shift inpatient nurse recalled Patient B did not appear to have any life-sustaining treatment orders in the EHR and further explained that it appeared the DNR orders were written in June 2021 but did not transfer appropriately to the August 2021 admission. Inpatient nursing staff reported being unable to view Patient B's DNR orders in the EHR at the time of admission. However, other facility staff interviewed by the OIG reported Patient B's DNR orders were viewable at the time of the patient's cardiac arrest. Both the attending physician and resident attributed potential errors with Patient B's resuscitation orders to the resident's lack of familiarity with using the EHR.

A facility informatics specialist verified that Patient B's EHR contained a valid life-sustaining treatment order for DNR that was present from the patient's previous admission through the patient's attempted resuscitation. The informatics specialist further explained that orders often "fall off" due to incorrect medical support assistant actions. In these instances, the EHR auto-discontinued some orders, such as medications. However, the informatics specialist noted that the life-sustaining treatment orders and DNR orders were excluded from these auto-discontinue rules, indicating the DNR orders always remained active in the EHR.

The informatics specialist also informed the OIG that facility staff can inadvertently make DNR orders more difficult to find by changing the personalized view of the Orders tab in the EHR. VHA installed new documentation functionality with the implementation of VHA Handbook

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[25] VHA Handbook 1004.03(2).

[26] VHA National Center for Ethics in Health Care.

[27] VA Computerized Patient Record System (CPRS) User Guide: GUI Version, "Postings (CWADPL)," January 2022. A posting can be viewed by clicking the posting button from any tab or selecting a specific posting from the cover sheet tab.

[28] VHA National Center for Ethics in Health Care.

1004.03(2) designed to help ensure that information about patient life-sustaining treatment decisions is easy to find in the EHR, including defaulting life-sustaining treatment orders to the top of the list on the Orders tab.

An inpatient nurse leader reported being unable to view DNR orders from the August 2021 admission when reviewing Patient B's EHR after the event. The OIG team attempted to verify through a visual demonstration whether modifying the Orders tab view for Patient B could cause life-sustaining treatment orders to not display correctly in the EHR. The nurse leader demonstrated the orders viewable for Patient B's August 2021 admission. Using the view demonstrated, Patient B did not appear to have any life-sustaining treatment orders defaulted to the top of the Orders tab.

DNR Armband

The OIG could not confirm if Patient B was wearing a DNR armband at the time of the code event.

The OIG reviewed the facility's patient safety documents examining the event and identified concerns that a DNR armband was discovered in the patient's bed during the code. The night-shift inpatient nurse documented initiating a code blue for Patient B after discovering him pulseless because, "his DNR wristband had fell [*sic*] on his bed we could not find it." During interviews, the night-shift inpatient nurse stated that Patient B did not have the DNR armband on and the DNR armband was discovered on the bed after the code. Other facility staff interviewed by the OIG either did not corroborate or provided conflicting information regarding the reported discovery of the DNR armband during the code.

Due to interviewee inconsistencies, the OIG was unable to confirm the presence or origin of a DNR armband reportedly found in Patient B's bed during the resuscitation. However, this case underscores the risks and vulnerabilities of staff relying on DNR armbands as the definitive source to confirm patients' life-sustaining treatment requests.

3. Related Concern: DNR Armbands

The OIG found that the discrepancies between patients' EHR code statuses and usage of DNR armbands were not unique to the Michael E. DeBakey VA Medical Center.

In a review of previous OIG reports on life-sustaining treatment and DNR orders, the OIG team determined that DNR armband issues contributed to misidentification in code status and staff miscommunication at the following facilities:

- VA Ann Arbor Health Care System, Ann Arbor, Michigan.[29]
- VA Northern California Health Care System, Mather, California.[30]

VHA policy requires that a licensed independent practitioner use the life-sustaining treatment progress note to write a DNR order but does not require the application of an armband to identify a DNR patient.[31] As of March 2019, the National Center for Patient Safety provided guidance that staff responding to a code should always check the EHR for a patient's code status.[32]

According to the National Center for Patient Safety

> Staff often treat Do Not Attempt Resuscitation (DNAR/DNR) on the identification wristband as if it were a medical order; it is not. There is no mechanism in the VHA to automatically update the identification wristband from the electronic record with any degree of accuracy. Therefore, the computerized patient record system (CPRS) [EHR] is the only definitive source for DNAR/DNR orders, and staff responding to a code should always check CPRS for the order.[33]

Facilities using DNR armbands in 2019 were encouraged to develop a multidisciplinary team to educate staff on the national life-sustaining policy and redesign their processes to eliminate the use of DNR armbands.

As of July 2021, the National Center for Patient Safety issued a Patient Safety Notice with a recommendation that the patient's code status (full code or DNR) not be identified with armbands.[34] The Patient Safety Notice explained that patient armbands were not updated in real time, which introduced the risk that a patient may receive care inconsistent with their values.

At the time of the OIG inspection, facility policy required the application of a DNR armband to identify patients with DNR orders and provided instructions that the DNR armband "must be immediately removed upon change in DNR status."[35] The facility policy did not identify which staff member was responsible for removing the DNR armband once the order was rescinded. The

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[29] VA OIG, *Patient Death Following Failure to Attempt Resuscitation, VA Ann Arbor Healthcare System Ann Arbor, Michigan*, Report No. 17-01208-07, November 7, 2017.

[30] VA OIG, *Delay in Emergency Airway Management and Concerns about Support for Nurses VA Northern California Health Care System Mather, California*, Report No. 15-00533-440, July 28, 2015.

[31] VHA Handbook 1004.03(2).

[32] VHA, *Patient Identification Wristband Guidance*, March 6, 2019.

[33] VHA, *Patient Identification Wristband Guidance*.

[34] VHA National Center for Patient Safety, *Patient Safety Notice*, N21–03, July 29, 2021.

[35] Facility Memorandum No. 11-046.

policy did not specify how often staff should check to ensure that patients wearing DNR armbands had active life-sustaining treatment plans and DNR orders. The facility's policy did not include verbiage reinforcing that the patient's EHR is the definitive source for a patient's code status during emergency situations.

The OIG learned that facility staff conducted internal reviews to address factors that contributed to the DNR identification errors that occurred with Patient A and Patient B as discussed in this report. As a result of the facility's internal reviews, the Chief of Staff reported taking steps to update the facility memorandum on life-sustaining treatment in October 2021. Additionally, facility leaders determined that DNR armbands will no longer be used to identify DNR patients in the facility.

4. Related Concern: DNR Status

The OIG found that a facility surgical resident did not follow VHA and facility policy that required an order including the specific procedure that would have an exception to the DNR order and identify parameters such as the patient's location and the time frame.

VHA and facility policy state that providers must not automatically suspend DNR orders prior to a surgical procedure with anesthesia.[36] For any suspension of a DNR order during surgery, a provider must obtain the patient's oral consent and enter an order in the EHR that resuscitation must be attempted in the event of a cardiac arrest. Providers should also consider including clarifying the location where resuscitation must be attempted, for example, from the time the patient enters the operating room until leaving the recovery room, rather than specifying a certain time frame for the exception.[37]

During Patient A's surgery in May 2020, the surgical resident discussed the DNR status with the patient in the operating room. Although the surgical resident wrote a progress note to hold Patient A's DNR order during surgery, there was no exception order written in the EHR to provide staff with the specific instructions or parameters as required.

The OIG concluded that the surgical resident did not follow VHA and facility policies that required an order including the specific procedure that would have an exception to the DNR order or the recommendation to identify parameters such as patient location and the time frame. Although the resident documented a progress note that oral consent was obtained from Patient A, the OIG considered the timing problematic because the patient was already in the operating room and the time may or may not have corresponded with the administration of opioids by anesthesia. Staff's failure to follow mandated procedures for exceptions to DNR orders during surgery

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[36] VHA Handbook 1004.03(2); Facility Memorandum No 11-046.

[37] VHA Handbook 1004.03(2). Facility Memorandum No 11-046.

presents a risk that patient preferences for life-sustaining treatments are not followed during and after surgical procedures.

Conclusion

The OIG substantiated that facility CLC staff delayed initiation of resuscitation efforts for Patient A who did not have an active DNR order in the EHR. The OIG determined that a CLC nurse assumed Patient A was a DNR based on the presence of the DNR armband and failed to verify an active DNR order in the EHR. CLC staff failed to identify and correct a discrepancy between the absence of a DNR order and the presence of a DNR armband prior to the event. The OIG could not determine whether resuscitation efforts would have been successful if employed in time.

The OIG substantiated that facility inpatient nursing staff attempted to resuscitate Patient B who had a documented life-sustaining treatment plan and a DNR order. Inpatient nursing staff relied on the absence of a DNR armband as the source of Patient B's code status and relayed the incorrect code status to responding members of the code blue team during the patient's cardiac arrest. The code blue team performed resuscitative efforts until a responding medical resident reviewed the EHR and identified Patient B's correct status as DNR.

The OIG learned that facility staff performed internal reviews and took actions to address factors that contributed to Patient A and Patient B's DNR status identification errors. The Chief of Staff updated the facility memorandum on life-sustaining treatment in October 2021 and determined that DNR armbands will no longer be used to identify DNR patients in the facility.

The OIG found that a facility surgical resident did not follow VHA and facility policy that requires an order include the specific procedure for exceptions to a DNR order. Staff's failure to follow mandated procedures for exceptions to DNR orders during surgery presents a risk that patient preferences for life-sustaining treatments are not followed during and after surgical procedures.

During this inspection, the OIG identified vulnerabilities in the procedures and communication used to prevent discrepancies between DNR armbands and DNR orders. The prevention of such discrepancies in the future will require monitoring activities that span multiple clinical disciplines and activities, and represent a complex challenge to ensure correct execution. Such prevention activities should be wide-ranging given the possible sources of error that could result in miscommunication.

Furthermore, with the discontinuation of DNR armband usage, the facility must ensure that DNR orders are accurate, readily accessible to staff through the EHR, and staff know how to find the DNR orders.

Recommendations 1–6

1. The Under Secretary for Health reviews vulnerabilities related to life-sustaining treatment processes and do not resuscitate orders within Veterans Health Administration facilities.

2. The Michael E. DeBakey VA Medical Center Director evaluates staff's reliance on the electronic health record as the definitive source for verification of life-sustaining treatment orders and patients' code statuses and takes action as indicated.

3. The Michael E. DeBakey VA Medical Center Director ensures that corrective actions from internal and quality management reviews are fully developed, implemented, and monitored for effectiveness.

4. The Michael E. DeBakey VA Medical Center Director ensures that the electronic health record displays life-sustaining treatment orders where staff can easily locate the information.

5. The Michael E. DeBakey VA Medical Center Director ensures that modifications to patients' life-sustaining treatment orders, including do not resuscitate orders, are confirmed with the patient and surgical team and documented in the electronic health record prior to surgical procedures requiring anesthesia.

6. The Michael E. DeBakey VA Medical Center Director determines that facility staff review patients' code statuses for any changes upon patients' return to units after surgical procedures.

Appendix A: Under Secretary for Health Memorandum

Department of Veterans Affairs Memorandum

Date: June 28, 2022

From: Deputy Under Secretary for Health (10), Performing the Delegable Duties of the Under Secretary for Health

Subj: Office of Inspector General (OIG) Draft Report, Healthcare Inspection—Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey Department of Veterans Affairs (VA) Medical Center in Houston, Texas, 2021-02903-HI-1189

To: Director, Office of Healthcare Inspections (54HL02)

1. Thank you for the opportunity to review and comment on the OIG draft report Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center in Houston, Texas. The Veterans Health Administration (VHA) concurs with the recommendations and provides action plans in the attachments.

2. OIG made one recommendation for improvement to the Under Secretary for Health and five recommendations to the Facility Director. VHA concurs with the recommendations and provides the attached action plans to address each recommendation.

3. Comments regarding the contents of this memorandum may be directed to the GAO OIG Accountability Liaison Office at VHA10BGOALACTION@va.gov

(Original signed by:)

Steven L. Lieberman, M.D.

Office of the Under Secretary for Health Response

Action Plan

Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center (2021-02903-HI-1189)

<u>Recommendation 1.</u> **The Under Secretary for Health reviews vulnerabilities related to life-sustaining treatment processes and do not resuscitate orders within Veterans Health Administration facilities.**

<u>VHA Comments:</u> Concur

To promote a consistent, personalized, proactive, patient-centered approach to supporting Veteran decision making about life sustaining treatment (LST), the National Center for Ethics in Health Care (NCEHC) will amend VHA Handbook 1004.03, Life-Sustaining Treatment Decisions: Eliciting, Documenting, and Honoring Patient's Values, Goals, and Preferences, to explicitly prohibit the inclusion of do not resuscitate (DNR) status on patient wristbands/armbands. VHA medical facilities will be required to establish local processes in compliance with VHA policy to determine if a patient has an active DNR order in the Electronic Health Record. NCHEC will submit a draft amendment to the Office of Regulations, Appeals, and Policy by June 30, 2022.

In addition, NCEHC and other stakeholders recently reviewed and updated VHA Handbook 1004.03 to ensure strong ethics practices surrounding establishing LST plans. The updated policy was submitted into informal concurrence on May 17, 2022.

Status: In progress   Target Completion Date: June 30, 2022

OIG Comments

The OIG considers this recommendation open to allow time for the submission of documentation to support closure.

Appendix B: VISN Director Memorandum

Department of Veterans Affairs Memorandum

Date: June 7, 2022

From: Director, South Central VA Health Care Network (10N16)

Subj: Healthcare Inspection—Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center in Houston, Texas

To: Office of the Under Secretary for Health (10)
         Director, Office of Healthcare Inspections (54HL02)
         Director, GAO/OIG Accountability Liaison Office (VHA 10BGOAL Action)

1. The South Central VA Health Care Network appreciates the opportunity to review and provide feedback to the draft healthcare inspection report – *Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center, Houston, Texas.* Based on a thorough review of the report by VISN 16 Leadership, I concur with the recommendations and the facility's response to each one.

2. If you have questions regarding the information submitted, please contact VISN 16 Quality Management Officer.

(*Original signed by*:)

Skye McDougall, PhD
VISN 16 Network Director

Appendix C: Facility Director Memorandum

Department of Veterans Affairs Memorandum

Date: June 6, 2022

From: Director, Michael E. DeBakey VA Medical Center (580/00)

Subj: Healthcare Inspection—Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center in Houston, Texas

To: Director, South Central VA Health Care Network (10N16)

1. Thank you for the opportunity to review and respond to the draft report, *Deficiencies in Life-Sustaining Treatment Processes at the Michael E. DeBakey VA Medical Center in Houston, Texas*. I concur with the recommendations contained in the report and corrective actions have been developed and implemented as outlined in the Directors Comments section.

2. The MEDVAMC is committed to ensuring each and every Veteran presenting to our facility receives the highest quality of care.

(*Original signed by*:)

Lindsay Crain
Deputy Medical Center Director
for
Francisco Vazquez
Medical Center Director

Facility Director Response

Recommendation 2

The Michael E. DeBakey VA Medical Center Director evaluates staff's reliance on the electronic health record as the definitive source for verification of life-sustaining treatment orders and patients' code statuses and takes action as indicated.

Concur.

Target date for completion: February 2022

Director Comments

In keeping with VHA and Veterans Integrated Service Network (VISN) guidelines, the Michael E. DeBakey Department of Veterans Affairs Medical Center (MEDVAMC) evaluated staff's reliance on the electronic health record as the definitive source for verification of life-sustaining treatment (LST) orders and patients' code statuses and acted as indicated. To ensure compliance, a Standard Operating Procedure (SOP) and clinical clips were developed. A multidisciplinary team was convened to redesign the process and educate providers about locating Do Not Attempt Resuscitation/Do Not Resuscitate (DNR)/ Do-Not-Intubate (DNI) orders per VHA Handbook 1004.03, Life-Sustaining Treatment Decisions: Eliciting, Documenting, and Honoring Patient's Values, Goals, and Preferences. Staff were educated on DNR practice changes in accordance with the SOP and clinical clips. MEDVAMC actions to ensure the verification of LST orders and patients' code statuses were validated by conducting audits and utilizing a DNR Hand-Off Communication Observation tool.

OIG Comments

The OIG considers this recommendation closed.

Recommendation 3

The Michael E. DeBakey VA Medical Center Director ensures that corrective actions from internal and quality management reviews are fully developed, implemented, and monitored for effectiveness.

Concur.

Target date for completion: February 2022

Director Comments

MEDVAMC recognizes the importance of ensuring that corrective actions from internal and quality management reviews are fully developed, implemented and monitored for effectiveness.

Purple wristbands were removed from service in accordance with the VHA Guidance Clinical Content on Patient Identification Wristbands. A LST SOP was created and published on August 16, 2021. The LST conversations are being conducted and are overseen by the LST committee. DNR audits were initiated in October 2021.

OIG Comments

The OIG considers this recommendation closed.

Recommendation 4

The Michael E. DeBakey VA Medical Center Director ensures that the electronic health record displays life-sustaining treatment orders where staff can easily locate the information.

Concur.

Target date for completion: November 2021

Director Comments

MEDVAMC recognizes the importance of displaying the LST orders in the electronic health record where staff can easily locate the information. The electronic health record displays the LST progress note in the Postings cover sheet on the upper right-hand corner, where one click quickly displays code status. Staff can click on the note to see the full content. Additionally, the orders tab displays the LST orders at the top of the Orders window. Staff has the option to change their view and save it. This can rearrange their view and LST orders may be displayed elsewhere in the orders window.

OIG Comments

The OIG considers this recommendation closed.

Recommendation 5

The Michael E. DeBakey VA Medical Center Director ensures that modifications to patients' life-sustaining treatment orders, including do not resuscitate orders, are confirmed with the patient and the surgical team and documented in the electronic health record prior to procedures requiring anesthesia.

Concur.

Target date for completion: May 2022

Director Comments

MEDVAMC ensures that modifications to patients' life-sustaining treatment orders, including the DNR orders, are confirmed with the patient and surgical team and documented in the electronic health record prior to surgical procedures requiring anesthesia. To ensure this, all patients undergoing surgical procedures requiring anesthesia at MEDVAMC are required to have a LST note, and if applicable, DNR orders, placed in their Computerized Patient Record System (CPRS) chart PRIOR to the patient being brought back to the operating room or procedure suite. In the preoperative area or the holding area, a mandatory checklist is in place that verifies every single patient undergoing a procedure that requires anesthesia has an LST note in place, and if applicable, modifications to patients' life-sustaining treatment orders, including DNR orders. Per MEDVAMC protocol, no patient can be brought into the operating room without the required LST documentation in CPRS. This is a hard stop for all MEDVAMC patients undergoing procedures requiring anesthesia. During the timeout prior to the procedure being performed, the LST note and any applicable LST orders are once again confirmed. Only after this time out, which again confirms LST status, can the anesthesia and procedure proceed. Each month, the Operative Care Line (OCL) conducts an audit to ensure that this process is validated. Education has been provided to staff, and a comprehensive LST training PowerPoint presentation was developed exclusively for this purpose. The staff were required to view the presentation and take a Talent Management System on LST. Both virtual and in-person educational sessions were offered to staff and trainees. OCL residency site coordinators send out the LST training to all incoming residents to help ensure compliance. Additionally, the trainees will be required to undergo annual orientation and OCL will hold monthly LST training for OCL residents.

OIG Comments

The OIG considers this recommendation closed.

Recommendation 6

The Michael E. DeBakey VA Medical Center Director determines that facility staff review patients' code statuses for any changes upon patients' return to units after surgical procedures.

Concur.

Target date for completion: May 2022

Director Comments

MEDVAMC has strengthened processes regarding the facility staff review patients' code statuses for any changes upon patients' return to units after surgical procedures. Staff were trained on the SOP and OCL LST Clinical Clip on the Processes for LST and Code Status

Documentation. This SOP is to be followed by all MEDVAMC employees involved with initiation, limitation, implementation, or discontinuation of LST and its documentation. The following procedures for practice changes were established and made effective from February 2022.

> 1. All inpatients should have LST note written. LST orders DO NOT automatically discontinue or expire based upon dates, timeframes, or patient movements (e.g., admission, discharge, transfer).
>
> 2. If patients are readmitted, existing LST note should be reviewed and changes/no changes in code status should be documented in History & Physical note.
>
> 3. When a new LST note or an update with permanent code status change is written, provider should add Primary Care Physician (PCP) (if PCP is assigned) as additional signer.
>
> 4. If patients in DNR/DNI status require a temporary reversal of code status for any procedure, a new LST note with DNR exception specifying the procedure and time frame will be written by the service performing the procedure.
>
> 5. Assessment of LST status should be incorporated into the procedural time-out process.
>
> 6. No new LST note is required after the procedure.
>
> 7. Current inpatients who require a procedure should only be transported to the procedural area after completing the LST note documentation as needed.

Upon the completion of staff training, the MEDVAMC conducted audits to evaluate the knowledge of reviewing patients' code statuses for any changes upon patients' return to units after surgical procedures. The staff demonstrated effective knowledge and skills on the Processes for LST and Code Status Documentation.

OIG Comments

The OIG considers this recommendation open to allow time for the submission of documentation to support closure.

OIG Contact and Staff Acknowledgments

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