



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

Healthcare Inspection

**Alleged Patient Safety, Medication
Management, and Environment of Care
Deficiencies in the Intensive Care Unit
Hampton VA Medical Center
Hampton, Virginia**

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

At the request of Senator Jim Webb, the VA Office of Inspector General Office of Healthcare Inspections reviewed the validity of 13 allegations regarding nurse orientation and training, medication integrity and security, patient information security, medical supply availability, patient monitoring and staff response to patient care needs, and environment of care issues at the Hampton VA Medical Center (facility), Hampton, VA.

We substantiated that the Intensive Care Unit (ICU) medication refrigerator temperatures are frequently outside the appropriate range, ICU medication carts do not always lock properly, medical supplies are not adequately stocked in the ICU, negative air pressure is not maintained in patient isolation rooms in the ICU and Step Down Unit (SDU), and the ICU physician call schedule is not clear to nurses on the night shift.

We did not substantiate that training opportunities for nurses are minimal and not made available; the ICU medication room is often unsecured; documentation containing patients' personally identifiable information is often left unsecured at the ICU nurses' station; telemetry station screens for the SDU and the medical/surgical unit are not continuously monitored by appropriately trained staff; staff response to patient emergency codes is inadequate; and floors and toilet areas in ICU patient rooms are not cleaned, nor is trash collected during the evening and night shifts.

We could not determine whether a nurse received the prerequisite critical care class to work on the ICU or have an opportunity to renew Basic Cardiac Life Support certification and whether the monitor in the SDU hallway was working on the night of February 28, 2012.

While not an allegation, we noted that telemetry patients in the medical/surgical unit are located on the floor above the telemetry monitoring station. As a result, communication between the station and the medical/surgical unit depends exclusively on telephone interactions and unit staff availability. Furthermore, facility policies do not define staff response requirements to telemetry monitor alarms or address situations such as when an ICU nurse is away from an assigned duty station.

We recommended that the acting facility Director implement procedures to ensure that medication refrigeration storage temperatures are maintained within the appropriate range and that temperatures outside of the appropriate range are addressed, medication carts are fully locked, adequate medical supplies are available to the ICU on all shifts, telemetry monitoring logistics are assessed, the ICU physician call schedule is revised to minimize confusion, and negative air pressure in isolation rooms is maintained. The VISN and Acting Facility Directors concurred with our recommendations and provided an acceptable action plan. We will follow up on the planned actions until they are completed.



DEPARTMENT OF VETERANS AFFAIRS
Office of Inspector General
Washington, DC 20420

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

SUBJECT: Healthcare Inspection – Alleged Patient Safety, Medication Management, and Environment of Care Deficiencies in the Intensive Care Unit, Hampton VA Medical Center, Hampton, Virginia

Purpose

At the request of Senator Jim Webb, the VA Office of Inspector General (OIG) Office of Healthcare Inspections conducted an inspection to determine the validity of allegations regarding nurse orientation and training, medication integrity and security, patient information security, medical supply availability, patient monitoring and staff response to patient care needs, and environment of care issues at the Hampton VA Medical Center (facility), Hampton, VA. The allegations largely focused on the Intensive Care Unit (ICU).

Background

The facility provides primary, specialty, and long-term care services. It has 146 hospital beds including an 8-bed ICU, a 7-bed Step-Down Unit (SDU), and a 23-bed medical/surgical unit. The facility serves a veteran population of more than 240,000 throughout 25 cities and counties in eastern Virginia and northeastern North Carolina and is under the jurisdiction of Veterans Integrated Service Network (VISN) 6.

Allegations

In April 2012, a complainant sent a letter to Senator Webb containing 13 allegations concerning the facility. The allegations can be divided into six general categories and include the following:

Issue 1: ICU Nurse Orientation and Training Opportunities

- During orientation, a nurse did not receive the prerequisite critical care class to work on the ICU or have an opportunity to renew Basic Cardiac Life Support (BCLS) certification.
- Training opportunities for nurses are minimal and are not made available by the facility.

Issue 2: ICU Medication Integrity and Security

- The ICU medication refrigerator temperatures are frequently outside the appropriate range.
- ICU medication carts do not always lock properly.
- The ICU medication room is often unsecured, with the key used to access narcotics hanging on a ring inside the room.

Issue 3: ICU Patient Information Security

- The nursing shift report and surgery schedule containing patients' personally identifiable information (PII) is often left unsecured at the ICU nurses' station.

Issue 4: ICU Medical Supply Availability

- ICU medical supplies, such as tube feeding materials, isolation gowns, and compression devices for post-surgical patients, were not consistently stocked.

Issue 5: Patient Monitoring and Staff Response to Patient Care Needs

- The telemetry station screens for the SDU and the medical/surgical unit are not continuously monitored by appropriately trained staff.
- On the night of February 28, 2012, the monitor in the SDU hallway was not working.
- Staff response to patient emergency codes is inadequate due to poor response time, no assigned staff, and inappropriate equipment.
- The ICU physician call schedule is not clear to nurses on the night shift.

Issue 6: Environment of Care

- The floors and toilet areas in patient rooms are not cleaned, and trash is not collected in ICU patient rooms on a regular basis during the evening and night shifts.
- Negative air pressure is not maintained in patient isolation rooms in the ICU and SDU.

Scope and Methodology

We conducted a site visit June 11–13, 2012. We interviewed the complainant, the Chief of Staff, the Associate Director for Patient Care Services, the Nurse Educator, an ICU attending physician, the ICU nurse manager, and ICU nursing staff. We also interviewed staff from logistics and engineering. We reviewed relevant facility policies and procedures, nurse training records, emergency code critique sheets, quality management documents, and medication refrigerator temperature logs.

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

Inspection Results

Issue 1: ICU Nurse Orientation and Training Opportunities

Nurse Requirements. We could neither confirm nor refute the allegation that, during orientation, a nurse did not receive the prerequisite critical care class to work on the ICU or have an opportunity to renew BCLS certification. We were unable to review the training folder of the identified nurse because the nurse is no longer employed by the facility. However, the identified nurse was reported to be Advanced Cardiac Life Support (ACLS) certified¹ and, therefore, according to facility policy, BCLS is not required.² We reviewed the training folders of four ICU nurses hired within the past 12 months and found they all had the required certification, and they either received specialized critical care training or demonstrated critical care competency to work on the ICU.

¹ ACLS is a more advanced version of the BCLS certification. BCLS providers can execute cardiopulmonary resuscitation and early defibrillation on a person. ACLS providers can respond to an unconscious person, analyze the cause of the emergency, determine the treatment(s) needed and take more advanced clinical steps to restore the person's breathing and heartbeat.

² Hampton VA Medical Center, Memorandum 11-16, *Cardiopulmonary Resuscitation (CPR) Policy*, November 17, 2009.

Nurse Training Opportunities. We did not substantiate the allegation that training opportunities for nurses are minimal and are not made available by the facility. Nurses told us that they are informed of VA and non-VA training opportunities through emails from nursing supervisors and flyers and brochures that are either posted on a bulletin board or left on the desk at the nurses' station. The Nurse Educator told us, and nurses confirmed, that ongoing training for licensure renewal is the responsibility of the individual nurse.

Issue 2: ICU Medication Integrity and Security

Medication Refrigerator Temperature. We substantiated the allegation that the ICU medication refrigerator temperatures are frequently outside the appropriate range. We found that the medication refrigerator daily temperature logs had recorded temperatures outside of the appropriate range with no documented evidence of corrective action.

Appropriate temperature controls maintain the potency of medications with temperature ranges for storage supplied by the manufacturer. Monitoring medication refrigerator temperatures is one method to ensure reliability and appropriate storage of medications. According to facility policy, TempTrak™, a proprietary 24 hours per day/7 days per week remote temperature monitoring system, is the facility's primary tracking tool to ensure the integrity and safety of its medications. If the TempTrak™ system becomes inoperable, paper temperature log sheets are utilized until the system is brought back on line.³ The appropriate temperature range for medication refrigerators is 36 to 46 degrees (°) Fahrenheit (F).

ICU nurses told us that they use both the TempTrak™ system and paper temperature logs to monitor medication refrigerator temperatures. We reviewed the daily paper temperature log for June 1–11, 2012. On June 1, a recorded temperature was below parameters at 34°F. The nurse documented that she adjusted the temperature control, but we found no documentation that the action brought the temperature back within the appropriate range. On June 2, a recorded temperature was below parameters at 33°F with no documented action plan. On June 3, three temperatures were recorded below the appropriate range (32° F, 29° F, and 25° F) with no corresponding action plans.

According to the paper temperature log instructions, if temperatures are out of range, nurses should document actions taken to adjust the temperature and notify pharmacy of potential compromise to medication safety. However, nurses told us that if the temperature falls out of range, the process is to adjust the refrigerator's temperature control, recheck the temperature in 30 minutes, and document the actions taken. If the temperature remains out of range, the process is for staff to relocate the medications to a medication refrigerator that is within the appropriate temperature range.

³ Hampton VA Medical Center, Standard Operating Procedure, "*TempTrak*" Monitoring System, April 1, 2011.

We reviewed Daily Summary Reports from the TempTrak™ system, which records the lowest temperatures for each day, and compared it to the paper temperature log. During June 1–3 (the 3 days the paper temperature log showed low temperatures), 2 of the 3 days had temperatures recorded below the appropriate range with no documentation of corrective action (37.0° F, 29.7° F, and 30.6° F). Engineering staff told us that sometimes the TempTrak™ probes are not placed correctly in the refrigerators and may need to be adjusted. According to the TempTrak™ policy, if a temperature adjustment does not resolve the problem, staff should transfer items to a refrigerator with temperatures within the appropriate range and notify engineering.⁴

Medication Security. We substantiated the allegation that the medication carts do not always lock properly. However, we did not substantiate the allegation that the ICU medication room is often unsecured, with the key used to access narcotics hanging on a ring inside the room.

Medication Carts. According to Veterans Health Administration (VHA) policy, lockable unit cabinets, such as medication carts, are acceptable to hold drugs but must be locked and positioned in a supervised area when not in use.⁵ On the day of our inspection, staff were using two of the four medication carts located in the ICU. Each cart consists of several drawers (for patient medications, syringes, and other supplies). The cart can be locked either by the nurse or an automated, timed locking mechanism. During our inspection, we found that although both carts had been locked by the nurse, one cart had an open unlocked drawer. Once the drawer was pushed in, it locked in place. According to our interviews, several staff members were aware that even if they (or the automated system) locked the medication cart, individual drawers could inadvertently be left unlocked.

Medication Room and Narcotics Drawer. VHA requires that drugs on the ward or in treatment rooms be kept in steel cabinets that are key-locked and either anchored to the floor or in locked secure vaults or rooms. Locked unit cabinets, such as a large medication unit⁶ or floor medication carts, are also acceptable but must be locked and positioned in a supervised area when not in use.⁷ Both national and facility policies require narcotics to be stored under a double-lock system.⁸

During two of our inspections of the ICU, we noted a password-locked medication room with a medication unit inside. We did not observe the medication room door open or unattended at any time. The nurse manager stated that the door would be open for

⁴ Hampton VA Medical Center, Standard Operating Procedure, “TempTrak” Monitoring System, April 1, 2011.

⁵ VA Handbook 0730/2 Transmittal Sheet, *Security and Law Enforcement*, May 27, 2010.

⁶ Large locked movable medication units are kept in the medication room or pharmacy, contains patients’ medications, and can only be accessed by individual passwords.

⁷ VA Handbook 0730/2 Transmittal Sheet, *Security and Law Enforcement*, May 27, 2010.

⁸ Hampton VA Medical Center Memorandum 119-03, *Control of Narcotics and Scheduled Substances*, April 18, 2011.

narcotic counts and cleaning, but one or two nurses were always in attendance during those times.

The medication room also has a built-in steel cabinet located next to the medication unit. The cabinet has a locked drawer that contains larger items, such as intravenous bags or cassettes that contain narcotics. All other medications are kept in the medication unit, which never leaves the medication room. According to the nurse manager, the drawer is locked at all times. There are three keys to open the drawer, and generally one is kept by the charge nurse, one by the nurse manager, and one by the nurse responsible for intravenous narcotic medication administration. We interviewed seven nurses from the evening and night shifts, each of whom stated that the medication room door was either locked or attended by appropriate staff and that the keys for the cabinet drawer containing narcotics were generally kept by the charge or other designated nurse. We found no evidence that the key used to access narcotics was left hanging on a ring inside the medication room.

Issue 3: ICU Patient Information Security

We did not substantiate the allegation that the nursing shift report and surgery schedule containing patients' PII is often left unsecured at the ICU nurses' station. Nurses unanimously told us that these documents are kept behind the nurses' station in either a folder or a drawer. During our inspection, we found no evidence of these documents or any other unsecured PII at the nurses' station.

Issue 4: ICU Medical Supply Availability

We substantiated the allegation that ICU medical supplies, such as tube feeding supplies, isolation gowns, and compression devices for post-surgical patients, were not consistently stocked. However, we did not identify any instances of inappropriate patient care or harm caused by any of these shortages.

Medical supply inventory is overseen by the facility's Medical Management section of the Logistics Department. VHA requires that Logistics Department staff establish and maintain automated inventories; work with consumers, such as the facility nursing staff and managers, to gain understanding of their needs; monitor and stock replacement supplies; and continually assess the needs of the consumer.⁹

According to ICU nursing staff, supply staff, and respective managers, the floor supply room is stocked daily from Monday through Friday. If a medical supply shortage occurs on a weekday, nursing staff may request additional supplies and the facility's central supply staff will bring those supplies to the floor. During nights, weekends, and holidays, the Nursing Officer of the Day has access to the central supply area and can obtain supplies upon request.

⁹ VHA Handbook 1761.02, *VHA Inventory Management*, October 20, 2009.

According to night and evening shift staff we interviewed, essential supplies, such as blood transfusion tubing, were not adequately stocked on nights, weekends, or holidays. Staff reported that sometimes central supply did not have the needed supplies, and nursing staff were told to borrow supplies from other sections of the hospital. Logistics Department leadership acknowledged that medical supply shortages have occurred during off hours.¹⁰ To address this issue, the Logistics Department recently realigned its leadership and is in the process of revising policies.

Issue 5: Patient Monitoring and Staff Response to Patient Care Needs

Telemetry Monitoring. We did not substantiate the allegation that the telemetry station screens for the SDU and the medical/surgical unit are not continuously monitored by appropriately trained staff.

Telemetry is a continuous electrocardiogram reading that shows the heart's electrical activity (rhythm) through external electrodes placed on a patient's body. The data gathered during this monitoring is continuously reviewed by a telemetry device that has a visual screen and triggers an audible alarm when attention is needed due to an abnormal rhythm. The telemetry device may be located at a station, in a patient's room, or both. The telemetry device produces three distinctive visual alarms—red for a life threatening issue; yellow for a lower priority, such as decreased respirations or changing heart rhythms; and blue for mechanical issues, such as an electrode having fallen off a patient. There are also audible sounds for each alarm that vary in intensity or length of time according to priority levels. Facility policy requires trained nurses to observe telemetry monitors on an ongoing basis and respond to all alarms.¹¹ In addition, facility practice allows other qualified staff¹² to provide telemetry coverage.

All seven nurses we interviewed stated that the telemetry station screens were continuously monitored by qualified staff. During our rounds of the ICU, we observed qualified staff at the station. Training records for four recently hired staff members who perform monitoring duties showed that they had received appropriate and applicable specialized training.

Although we found no problems with the continuous monitoring at the telemetry station, we identified two issues concerning telemetry monitoring for the medical/surgical unit and ICU.

Telemetry Station Communication. The telemetry monitoring station is located on the third floor at the nurses' station, which is a central position for the SDU and ICU. The telemetry station nurse can view the screens for the SDU, medical/surgical unit, ICU, and emergency department (ED) from this one station.

¹⁰ Off hours refers to holidays, evenings, nights, and weekends.

¹¹ Hampton VA Medical Center, *Telemetry Unit Policy*, 2000.

¹² Clinical staff who have received specialized training to monitor telemetry station.

Telemetry patients in the medical/surgical unit are on the fourth floor; when an issue occurs regarding the telemetry pattern of one of these patients, the telemetry station nurse telephones the fourth floor nurses' station to inform them of the alert. There is no other method in place at this time to contact the fourth floor from the third floor telemetry station. If no one answers the initial call, the telemetry station nurse will continue to try until someone responds. According to our interviews of nursing staff and management, there have been no reported instances of patient harm resulting from this practice; however, the process can cause a delay in nursing response and treatment for patients.

Telemetry Monitoring in the ICU. Although all of the ICU and ED telemetry screens can be viewed by the nurse at the telemetry station, it is the responsibility of the ICU and ED nurses to monitor their assigned patients and respond to alarms.

An ICU nurse generally has two assigned patients and sits at a small hallway station located between the two patient rooms. On one end of the ICU hallway, the ICU nurse sitting at the small hallway station can see the telemetry monitor in only one of the two patient rooms plus a large monitor in the hallway that displays all the ICU patients' telemetry readings and alarms. The ICU nurse who sits at the other end of the hallway can only see the telemetry monitor in one of the two patient rooms that nurse is assigned to. There is no large, ICU-wide monitor at this end of the hallway; therefore, this nurse must rely on audible alarms to notify the nurse of issues. According to the nurses interviewed on the floor during our rounds on June 11, 2012, the nurses do not respond to every alarm as required by facility policy. For example, if a yellow audible alarm sounds for reasons such as a rapid or irregular pulse, nurses do not regard this as an immediate concern and may not respond. An audible yellow alarm will shut off by itself within a few minutes even if the problem persists; however, the assumption is that the issue may self-correct without intervention. The nurse will periodically check the monitor during this time but may not go in to see the patient.

While we were on the floor, we noticed a yellow alarm on the large monitor for a patient at the far end of the ICU hallway. We did not hear an alarm. The nurse manager stated that the nurse was probably in the room assisting the patient. The inspector went to the room and observed the patient was alone in the room; assigned nursing staff were neither at the small nurses' station nor in the hallway where the patient's room was located. We found that nurses do leave their patient stations to get supplies and medications or to perform narcotic counts. The present telemetry policy does not give instructions on how to respond to different alarms or describe a process for when a nurse must leave the station for a necessary purpose.

Telemetry Equipment. We could neither confirm nor refute the allegation that the monitor in the SDU hallway was not working on the night of February 28, 2012. There were no work orders requesting repair for a malfunctioning SDU monitor on the night of February 28, 2012. However, an ICU nurse recalled that the hall monitor was not

working one night several months ago because it was not plugged in correctly. Once this was identified and corrected, the monitor functioned properly.

Staff Response to Patient Emergency Codes. We did not substantiate the allegation that staff response to patient emergency codes is inadequate due to poor response time, no assigned staff, and inappropriate equipment.

VHA requires that facilities plan and have the resources in place to rapidly initiate the appropriate emergency response to cardiopulmonary events, regardless of location or time of day.¹³ VHA further expects that facilities analyze and trend every patient resuscitation event on their campus and monitor other types of non-resuscitative emergencies.¹⁴

The facility has policies for a Blue Code Team, Green Code Team (previously called “First Responder”), and Medical Rapid Response Team (MRRT), as well as a Special Care Committee that oversees the emergency procedures executed in the facility and on the facility campus. The Blue Code Team responds to actual cardiac arrests where cardiopulmonary resuscitation (CPR) is required. Team members include the medical resident on call, the medical intern on call, a respiratory therapist, and a registered nurse. The MRRT responds when a patient’s medical condition is deteriorating and the staff caring for the patient needs clinical expertise beyond their own. Members include an ICU nurse or Nurse Officer of the Day and a respiratory therapist. The Green Code Team responds to patient emergencies, such as falls, and evaluates whether a Blue Code is needed. The team includes a registered nurse and respiratory therapist.

The Special Care Committee tracks issues for both Code Teams and the MRRT and collects, analyzes, and trends resuscitative data monthly. Their data collected from October 2011 to March 2012 did not identify any problems regarding Code teams or MRRT response times, assigned staff or inappropriate equipment.

ICU Physician Call Schedule. We substantiated the allegation that the ICU physician call schedule is not clear to nurses on the night shift. We also found the general description by the ICU attending physician during our site visit to be confusing and complicated given the small number of beds in the ICU.

VHA requires continuous in-house coverage of facility inpatients by qualified physicians with the knowledge and skills to admit patients and to manage inpatient medical and surgical problems. When attending physicians are not present in the facility, a hospitalist or resident physician is assigned to cover patient medical and care issues. The Chief of

¹³ VHA Directive 2008-015, *Public Access to Automated External Defibrillators: Deployment, Training, and Policies for Use in VHA Facilities*, March 12, 2008.

¹⁴ VHA Directive 2008-063, *Oversight and Monitoring of Cardiopulmonary Resuscitative Events and Facility Cardiopulmonary Resuscitation Committee*, October 17, 2008.

Staff must ensure that physician assignment schedules are available in triage areas, at nursing stations, and for page operators.¹⁵

The facility's ICU has two assigned attending physicians. One of the attending physicians is always on call for ICU patients on off hours. However, ICU patients are divided into two teams, and the attending, when on call, only covers patients on one team. The second team is covered by a hospitalist or resident physician, who is present at the facility during off hours. The ICU physician monthly call schedule is posted electronically and is accessible to ICU nurses. A hard copy of the schedule is kept at the ICU nurses' station; however, changes to the schedule are made electronically by the physician scheduler and are not always added to the hard copy. The schedule includes the names and contact numbers of physicians on call for admissions, the on-call attending, and the in-house resident but does not specify which team the ICU patient is assigned to. According to interviews of the ICU staff and ICU attending physician, the ICU nurses, at times, have called the wrong physician and been directed to look at the schedule and team again to find the correct physician on call. Although no patient harm incidents were described, this process may delay medical interventions.

Issue 6: Environment of Care

Patient Room Cleanliness. We did not substantiate the allegation that the floors and toilet areas in patient rooms are not cleaned and trash is not collected in ICU rooms on a regular basis during the evening and night shifts. We conducted an unannounced inspection of the ICU at the conclusion of a night shift and found that the unit, including patient rooms, appeared to be clean and orderly. Nurses who work the evening and night shifts reported that the ICU is kept generally clean and that trash is collected appropriately from patient rooms.

Negative Air Pressure in Isolation Rooms. We substantiated the allegation that negative air pressure is not maintained in some patient isolation rooms on the ICU and SDU. We found two isolation rooms in the ICU with malfunctioning negative pressure units and one isolation room in the SDU with the patient room door propped open, preventing negative airflow.

Negative air pressure ensures that air is exhausted to the outside of the building from patient isolation rooms instead of being recirculated into other rooms or hallways to prevent cross-contamination. According to engineering staff, it is facility practice to maintain negative pressure in all rooms with negative pressure capabilities, regardless of patient need for a negative pressure environment. A control box is mounted on the wall outside of each isolation room and displays the room's air pressure reading. The control box produces an audible and/or visual alarm if the airflow pressure in the room becomes positive.

¹⁵ VHA Handbook 1101.04, *Medical Officer of the Day*, August 30, 2010.

We inspected the isolation rooms in the ICU and the SDU. In the ICU, we found two isolation rooms with malfunctioning negative pressure units due to equipment component failure. One of the isolation rooms was occupied by a patient who did not require a negative pressure environment. The second malfunctioning negative pressure room was unoccupied. Engineers told us that the exhaust fan belts “burn out” and need to be replaced about once per month. In the SDU, we found a patient-occupied isolation room with the door propped open by a computer on wheels. Nurses told us that the patient in the room did not require a negative pressure environment.

During our visit, facility managers repaired the malfunctioning negative pressure unit and restored negative air pressure in both rooms.

Conclusions

We substantiated that the ICU medication refrigerator temperatures are frequently outside the appropriate range and found no documented evidence of corrective actions. We found that ICU medication carts could be locked even though a drawer was open and medications could be removed from the drawer. We found that ICU medical supplies were not consistently stocked; however, we did not identify patient harm issues or inappropriate services due to a shortage. We also found that two isolation rooms in the ICU shared a malfunctioning negative pressure unit and one isolation room door on the SDU was propped open, preventing negative airflow. Further, the ICU physician call schedule is not clear to nurses on the night shift.

We did not substantiate that training opportunities for nurses are minimal and are not made available; the ICU medication room is often unsecured, with the key used to access narcotics hanging on a ring inside the room; documentation containing patients’ PII is often left unsecured at the ICU nurses’ station; telemetry station screens for the SDU and the medical/surgical unit are not continuously monitored by appropriately trained staff; staff response to patient emergency codes is inadequate; and floors and toilet areas in ICU patient rooms are not cleaned and trash is not collected during the evening and night shifts.

We could neither confirm nor refute two of the allegations. We could not determine whether a nurse received the prerequisite critical care class to work on the ICU or have an opportunity to renew BCLS certification. However, the nurse was reportedly ACLS certified which, according to facility policy, is the requirement for ICU nurses. We also could not determine whether the monitor in the SDU hallway was working on the night of February 28, 2012.

During our inspection, we became aware of two additional issues related to telemetry monitoring. Telemetry station staff monitor medical/surgical patients located on the floor above the station unit. As a result, communication between the station and the medical/surgical unit depends exclusively on telephone interactions and unit staff

availability. Further, facility policies do not define staff response requirements to telemetry monitor alarms or address situations such as when an ICU nurse is away from an assigned duty station.

Recommendations

Recommendation 1. We recommended that the acting facility Director implement procedures to ensure that medication refrigeration storage temperatures are maintained within the appropriate range and that temperatures outside of the appropriate range are addressed.

Recommendation 2. We recommended that the acting facility Director implement procedures to ensure that medication carts are fully locked by staff.

Recommendation 3. We recommended that the acting facility Director implement procedures to ensure that adequate medical supplies are available to the ICU throughout all shifts.

Recommendation 4. We recommended that the acting facility Director assess the logistics of telemetry monitoring to ensure reliable visualization and that responses to the systems' alarms be consistent and proportional to the level of urgency.

Recommendation 5. We recommended that the acting facility Director ensure that the ICU physician call schedule is revised so that it is clear to all ICU nurses on the evening, night, weekend, and holiday shifts which physician to call for each team.

Recommendation 6. We recommended that the acting facility Director implement procedures to ensure that negative air pressure in isolation rooms is maintained.

Comments

The VISN and Acting Facility Directors concurred with our recommendations and provided an acceptable action plan. (See Appendixes A and B, pages 13–21 for the Directors' comments.) We will follow up on the planned actions until they are completed.



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

VISN Director Comments

**Department of
Veterans Affairs**

Memorandum

Date: August 27, 2012

From: VISN Director

Subject: **Healthcare Inspection – Alleged Patient Safety, Medication Management, and Environment of Care Deficiencies in the Intensive Care Unit, Hampton VA Medical Center, Hampton, VA**

To: Director, Bedford Office of Healthcare Inspections (54BN)

1. The Mid-Atlantic Health Care Network submits the following responses to recommendations resulting from the Office of Inspector General site visit, June 11-13, 2012. We concur with the findings and have initiated processes to prevent any future occurrences.
2. Thank you for providing me the opportunity to review the document and respond.
3. If you have any question and/or concerns, please feel free to contact the Acting Medical Center Director, Benita Stoddard, FACHE at (757) 722-9961, ext. 3100.

(original signed by:)

DANIEL F. HOFFMAN, FACHE

Acting Facility Director Comments

**Department of
Veterans Affairs**

Memorandum

Date: August 27, 2012

From: Acting Director, Hampton VA Medical Center (590/00)

Subject: **Healthcare Inspection – Alleged Patient Safety, Medication Management, and Environment of Care Deficiencies in the Intensive Care Unit, Hampton VA Medical Center, Hampton, VA**

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

1. I have reviewed the draft report and concur with the recommendations. The findings outlined in the OIG report reflect a thorough evaluation.
2. We have implemented processes to ensure that variations in the processes are resolved.

(original signed by:)
BENITA K. STODDARD, FACHE

Acting Director's Comments to Office of Inspector General's Report

The following Acting Director's comments are submitted in response to the recommendations in the Office of Inspector General's report:

OIG Recommendations

Recommendation 1. We recommended that the acting facility Director implement procedures to ensure that proper medication refrigeration storage temperatures are maintained within the appropriate range and that temperatures outside of the appropriate range are addressed.

Concur

Target Completion Date: February 2013

Facility Response: VAMC Hampton thoroughly reviewed our current TempTrak processes and initiated several immediate adjustments. In accordance with current policy, Nursing Service monitors the temperature alert system for medication refrigerators and takes appropriate corrective action if an out-of-range condition is identified. We have now issued a cell phone with text capability to the Nursing Officer of the Day (NOD) and have configured the TempTrak automatic temperature monitoring system to send a text alert to this phone if an out-of-range condition occurs. The NOD takes any appropriate immediate action (such as closing the refrigerator door), notifies the Administrative Officer of the Day (AOD) if Facilities support is required, and executes the appropriate contingency plan (including moving medications to ensure the medications are stored in a refrigerator within appropriate range) if necessary.

Additionally, we have initiated long-term modifications to sustain improvements to the existing process. The responsibility for temperature monitoring for all refrigerators will be migrated to Facility Management Service. Center Memorandum 138-35 is in routing for the Director's approval to reflect these updated responsibilities. Once 24/7 staffing is onboard (target February 2013), Facility Management Service will monitor the TempTrak system 24/7, respond to alarms, make necessary adjustments or repairs, and recommend the initiation of contingency plans by affected Services when necessary.

Temperature alert conditions and responses have been added as a recurring review item for the Environment of Care Committee (EOCC), which reports monthly to the Administrative Executive Board (AEB). EOCC and AEB are empowered to initiate corrective action if monitoring or equipment issues are not addressed appropriately.

Recommendation 2. We recommended that the acting facility Director implement procedures to ensure that medication carts are fully locked by staff.

Concur

Target Completion Date: August 20, 2012

Facility Response: A process for the appropriate security for medications is currently in place within our facility; however, during this inspection the Intensive Care Unit (ICU) medication cart was locked, however the cart had a drawer that was not secured. Based on a facility review, it was determined that the medication drawer on the medication cart did not catch when the lock was engaged. A “Quick Sweep” form that is utilized facility wide identifies areas of focus to facilitate a continuous survey readiness posture. The Quick Sweep form was updated on June 19, 2012 to include validating the functionality of the Medication Cart(s) locking mechanism by staff physically checking all the drawers to validate they are not able to be opened when the locking mechanism is engaged. Guidance was also provided to staff to reinforce the requirement to physically check all the drawers to validate they are not able to be opened when the locking mechanism is engaged. If the locking mechanism is found to be not functional, staff is instructed to immediately complete an electronic work order in VistA so Biomedical Engineering can repair the broken lock mechanism. Staff are then to contact the IRM help desk who maintains a few medication carts that can be reprogrammed and set up for use while the unit awaits repair of the broken medication cart locking mechanism. If it is determined to be a broken drawer, staff is instructed to immediately notify Pharmacy Services to obtain a replacement drawer. Pharmacy maintains and has a supply of replacement drawers readily available. Nurse Managers report the results of their weekly “Quick Sweep” monthly to the Nursing Executive Leadership Board (NELB) for Executive Leadership oversight.

Recommendation 3. We recommended that the acting facility Director implement procedures to ensure that adequate medical supplies are available to the ICU throughout all shifts.

Concur

Target Completion Date: September 11, 2012

Facility Response: We have recently had a change of leadership in the Logistics Department. The new Acting Chief, Logistics has implemented new processes to prevent future medical supply shortages. The new processes include the Logistics Service Medical Technician performing a daily inventory of the ICU's supplies and meeting with the ICU Nurse Manager on a daily basis to identify any medical supply needs or any anticipated increased supply quantity levels based on the ICUs patient acuity and workload. If the Nurse Manager is not available, the Medical Technician meets with the Charge Nurse.

The Nursing Officer of the Day (NOD) is responsible to address any requests from units regarding out of stock medical supplies during night shifts, weekends and on holidays. The NOD has complete access to multiple areas for obtaining additional medical supplies to include central supply, the Logistics supply warehouse and the supply closets located within each unit throughout the medical center.

Additionally the Medical Technician performs a daily review of the ICUs supply Periodic Automatic Replenishment (PAR) levels via a written report generated from the Generic Inventory Package located in VistA. The report is reviewed and signed by the nurse manager to identify any supply stock levels that are too high, too low and any supply items that are no longer required to be stocked due to lack of utilization. Based on the daily meetings with the ICU Nurse Manager, the Logistics Medical Technician make changes to the logistics package to increase or decrease the PAR levels in the Generic Inventory Package located in VistA.

A Logistics Working Group to include Nursing staff representation has been tasked with reviewing the entire process of how ICU supplies are ordered, how PAR levels are determined, how monitoring of inventory levels, bar coding, scanning manage inventory are performed, identifying opportunities to improve customer service and identify processes to prevent medical supply outages or shortages. The working group meetings began in June 2012. This group will continue to meet, with reporting oversight to the Administrative Executive Board.

Recommendation 4. We recommended that the acting facility Director assess the logistics of telemetry monitoring to ensure reliable visualization

and that responses to the systems' alarms be consistent and proportional to the level of urgency.

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Target Completion Date: October 1, 2012

Facility Response: After a thorough assessment of our telemetry monitoring processes and procedures, a comprehensive Nursing Service Standard Operating Procedure (SOP) - Remote Cardiac Monitoring was developed. The purpose of the Remote Cardiac Monitoring SOP is to establish the policy and procedure for providing care to patients requiring remote cardiac monitoring. Additionally, the Remote Cardiac Monitoring SOP delineates the required responses, timelines, and actions that are consistent and proportional to the level of urgency. A CPRS Nurse Telemetry Note was also developed for telemetry personnel to document patient monitoring results every four hours.

Remote telemetry monitoring is performed by monitoring personnel only on the eight telemetry beds on 4 East and the Step Down Unit (SDU). Remote telemetry monitoring is performed in a centralized monitoring area located in the Intensive Care Unit (ICU) on the third floor. The SDU, however, is geographically embedded within the ICU. Due to this proximal location, monitoring personnel can readily contact SDU staff via visual, verbal or phone notification. Because 4 East is remotely located on the fourth floor, when a 4 East dysrhythmia is noted, the monitoring personnel will notify the Registered Nurse (RN) or Licensed Practical Nurse (LPN) caring for the 4 East patient by telephoning the 4 East Nurses' Station. If the assigned RN/LPN cannot be reached by phone, the monitoring personnel immediately contacts the 4 East Charge Nurse via sequestered cardiac pager, which is to be used solely by the telemetry monitoring personnel. The telemetry monitoring personnel will enter on the pager display the room number of the affected patient, so the Charge Nurse can immediately respond to the affected patient.

Although all of the ICU and ED telemetry screens can be viewed by the nurse at the telemetry station, it is the responsibility of the ICU and ED nurses to monitor their assigned patients and respond to alarms. Monitoring personnel will, however, be vigilant of arrhythmias and alarms from ICU and Emergency Department patients, and will alert the ICU and ED nurse of ongoing alarms.

If the ICU or ED nurse must leave their respective area for a necessary purpose, i.e. for lunch, breaks, meetings, etc., the ICU or ED nurse will provide a face to face handoff to another nursing staff member capable of caring for the patient(s), to ensure there is reliable visualization of the bedside monitor, and commensurate responses to any alarms.

Nursing staff are required to successfully complete telemetry orientation prior to being assigned to work with patients on telemetry. All RN's, LPN's, and monitoring personnel on 4 East, SDU, ICU, and ED began education on the new Remote Cardiac Monitoring SOP on August 20, 2012. The Remote Cardiac Monitoring SOP education will be completed by September 14, 2012. Education packets, which consist of a copy of the Remote Cardiac Monitoring SOP and a copy of the Nurse Telemetry Note, are available on 4 East, SDU, ICU, and ED for staff reference. Current initial and annual competency validation records for 4 East, SDU, ICU, and ED already contain telemetry competencies. As of October 1, 2012, all RN's, LPN's, and the Monitor Technician on 4 East, SDU, ICU, and ED annual competency validation records will be updated to document the re-education of the Remote Cardiac Monitoring SOP.

Nursing Leadership monitors the appropriateness and timeliness of alarm responses by monitoring the Telemetry Center Call Log (attachment **D** of Remote Cardiac Monitoring SOP). Monitoring was initiated on August 20, 2012. There have been no delays or concerns with responsiveness identified to date.

Recommendation 5. We recommended that the acting facility Director ensure that the ICU physician call schedule is revised so that it is clear to all ICU nurses on the evening, night, weekend, and holiday shifts which physician to call for each team.

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Target Completion Date: September 10, 2012

Facility Response: The on-call schedule is posted at the beginning of the month to a shared drive with each service being responsible for updating any changes. The following actions have been implemented to address these issues, beginning September 4, 2012.

A Standard Operating Procedure (SOP) outlining access to a shared drive Call Schedule folder has been created to house individual call schedules for each service. Nursing staff, to include, Nurse Managers, Nursing Officers of the Day (NOD), the Administrative Officer of the Day (AOD), hospital

operators, and physician staff have access to the shared folder, and are currently being educated on the On Call Schedule SOP. The training will be completed by August 31, 2012. The SOP will be implemented on September 4, 2012. A daily listing of call staff with contact information will be sent via Outlook email each day at 3:30 p.m. until training is complete.

The CPRS admission order template was amended to include the team designation along with contact information to include beeper and phone number. A required or mandatory field was also included in the CPRS admission order template, with the ability to change the team designation after the admission while the patient is still in an inpatient status to ensure the most current team designation is documented.

If the shared folder is not accessible, a contingency plan is to contact the Nursing Officer of the Day (NOD) or the Administrative Officer of the Day (AOD) who will maintain a paper copy of the on-call schedules.

Any changes made to an on call schedule are immediately sent to the NOD and AOD via email at the time of the change. The NOD and AOD will make the applicable changes on their paper copy of the on call schedule.

On August 8, 2012, the ICU Nurse Manager initiated a log to track all after hour's provider pages to validate which provider was paged. The Nurse Manager reviews the spreadsheet log and determines if the provider paged matches the provider listed in the on-call schedule. The Nurse Manager documents their review of the spreadsheet log in a separate spreadsheet log. If the information in the spreadsheet does not match, the Nurse Manager documents the corrective action(s) taken and/or implemented in their spreadsheet log. The Nurse Managers review spreadsheet is to be submitted to the Acting Patient Safety Manager by September 10, 2012 for their review and follow-up as required.

Recommendation 6. We recommended that the acting facility Director implement procedures to ensure that negative air pressure in isolation rooms is maintained.

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Target Completion Date: September 15, 2012

Facility Response: On June 13, 2012, while the OIG Team was on site, a belt was replaced on each of the two malfunctioning negative pressure rooms located in the Intensive Care Unit (ICU). The two ICU rooms were

then tested and were determined to be fully operational negative pressure rooms by Engineering Services in Facility Management. Engineering Services continues to conduct monthly preventative maintenance checks to validate the negative pressure status of the rooms.

A Medical Center Memorandum (MCM) has been developed that outlines the processes, procedures and responsibility to validate that the negative pressure rooms are fully operational prior to placing a patient in the room and while a patient is occupying the room. All clinical areas with negative pressure rooms will educate their staff by September 15, 2012 regarding the MCM process to validate that the negative pressure room is fully operational prior to placing a patient in the room.

If a patient needs to be placed in a negative pressure room, Engineering Service/Facility Management will be contacted to verify that the negative pressure system is fully operational which includes performing the smoke test process prior to placing the patient in the room. Nursing staff are responsible for contacting Engineering Service daily so they can verify that the negative pressure system remains fully functional each day the room is in use. In the event Engineering Service staff are not available during the off tours and weekends, the Nursing Officers of the Day (NOD) have current documented competencies on the use of the negative pressure smoke test kit and can perform the required testing to validate the negative pressure room is fully operational.

OIG Contact and Staff Acknowledgments

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| OIG Contact | For more information about this report, please contact the Office of Inspector General at (202) 461-4720. |
| Acknowledgments | Thomas Jamieson, MD, Project Leader Clarissa Reynolds, CNHA, MBA, Team Leader Elaine Kahigian, RN, JD Claire McDonald, MPA |

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