DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY
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IN REPLY REFER TO
BUMEDINST 6320.97A
BUMED-M3
13 Mar 2015

BUMED INSTRUCTION 6320.97A

From: Chief, Bureau of Medicine and Surgery

Subj: NAVY MEDICAL TREATMENT FACILITY INTENSIVE CARE UNIT MODEL AND RE-DESIGNATION

Ref: (a) Recommendations from the Society of Critical Care Medicine on Three Levels of Care (Crit Care Med 2003 Vol. 31, No. 11)
(b) Clinical practice guidelines for support of the family in the patient-centered intensive care unit: American College of Critical Care Medicine Task Force 2004-2005 (Crit Care Med 2007; Vol. 35, No. 2)

Encl: (1) Acronyms

1. Purpose. To establish consistent quality care standards for staffing and management of Navy intensive care units (ICUs) throughout the enterprise.

2. Background. Per reference (a), which is available at: http://www.learnicu.org/docs/guidelines/servicespersonnelcategorization.pdf, this document establishes criteria that defines staffing and resourcing of Level I, II, and III ICUs as they pertain to Navy Medicine and medical treatment facility (MTF) ICUs. Enclosure (1) is provided for clarification.

3. Cancellation. BUMEDINST 6320.97.

4. Scope. Applies to Navy MTFs authorized by Chief, Bureau of Medicine and Surgery to manage and operate ICUs. Flexibility in implementation is given to all MTF commanding officers who shall consult with their regional commanders and will remain the approving authority for any deviance from this guidance. Pediatric and Neonatal ICU practices are not within the scope of this instruction.

5. Policy. Utilizing the 2003 Society of Critical Care Medicine (SCCM) published guidelines on critical care services, and personnel requirements, reference (a), Navy MTFs with ICU capabilities shall designate and align staffing based on the guidance above and as follows:

a. Categories of Care

(1) Level I critical care. These critical care centers have ICUs that provide comprehensive care for a wide range of disorders requiring intensive care. They require the continuous availability of sophisticated equipment, specialized nurses, advanced practice nurses

and physicians with critical care training. Support services are comprehensive including pharmacy services, respiratory therapy, dialysis, nutrition, pastoral care, laboratory (including Blood Bank), and social services.

(2) Level II critical care. Level II critical care centers have the capability to provide comprehensive critical care, but may not have resources to care for specific patient populations (e.g., cardiothoracic surgery, neurosurgery, and trauma). They require the continuous availability of sophisticated equipment, specialized nurses, advanced practice nurses and physicians with critical care training. Support services are comprehensive including pharmacy services, respiratory therapy, dialysis, nutrition, pastoral care, laboratory services (including Blood Bank) and social services. Although these centers are able to deliver high quality care to most critically ill patients, transfer agreements must be established in advance for patients with specific disease states that require expertise or resources not currently and regularly available at the hospital.

(3) Level I versus Level II critical care. Level I and Level II ICUs are identical in their staffing requirements except for those specialties identified in the Level II which may lack resources to care for specific patient populations. Even among Level I hospitals, there are certain specialized services that may not be available at other Level I hospitals. The Level classification is primarily to enable emergency medical services and transferring hospitals to appropriately disposition critically ill patients without delay and to develop contingency plans in advance. Regardless of the classification level, at any given time, the MTF should provide care to any patient that they have the expertise and resources to care for within their regional standard of care.

(4) Level III critical care. MTFs with Level III capabilities have the ability to provide initial stabilization, resuscitation and care of critically ill patients, but are limited in the ability to provide comprehensive and prolonged critical care to all patients. These MTFs require written policies addressing the transfer of critically ill patients that require support not available at their facility to critical care centers capable of providing the sustained comprehensive critical care required for the specific patient (Level I or II). These level III facilities may continue to admit and care for a limited number of ICU patients for whom care is routine and consistent with hospital resources and within standard of care for similarly staffed civilian hospitals within their region. It is the MTF commanding officer's responsibility to ensure that the regional standard of care for ICU patients is maintained at their facility so that no patient in a MTF will receive a lower standard of care than at similarly sized and staffed civilian hospitals within their local area. MTF commanding officers should utilize their intensivist staff and ICU medical director to regularly monitor and assess the local ICU capabilities and standards. The ICU medical director shall give recommendations to the Executive Committee of Medical Staff (ECOMS) and the MTF commanding officer on ICU policy and practices.

b. Staffing Models. All Navy MTF ICUs that have at least a four physician staff with critical care privileges (i.e., 'intensivist') should have either a closed or modified open ICU. With the closed staffing model, all patients in the ICU are managed by an intensivist lead team.

In a modified open ICU, the patient's primary attending is a non-intensivist but daily consultation with an intensivist is mandatory. In this instruction, intensivist is defined as a physician who has completed a formal Accreditation Council for Graduate Medical Education accredited Critical Care Fellowship program, and is board eligible or board certified in critical care with critical care privileges.

c. Staff

(1) Navy MTFs staffed by intensivists shall utilize these physicians and advanced practice nurses to guide local ICU policy tailored to the resources and staffing of the hospital and the local standards of care. Navy MTFs with less than three intensivists will be designated as Level III. Navy MTFs without a critical care fellowship trained intensivist to serve as a medical director should not operate an ICU.

(2) For Level I or Level II ICUs:

(a) The ICU shall have a medical director who is a fellowship trained critical care physician. The medical director shall:

1. Be a member of ECOMS.

2. Work closely with the ICU critical care nurse manager to ensure delivery of the highest quality of care to each patient.

3. Manage a robust critical care peer review program.

4. Strive to implement best practices in critical care medicine in the ICU as promulgated by the Navy Medicine Critical Care Specialty Leader and national organizations such as the SCCM and the Institute for Healthcare Improvement (IHI).

(b) ICUs shall adopt a closed staffing model with an intensivist as primary attending, or a modified open model with mandatory daily consultation by an intensivist. An exemption from this closed model will be made for cardiologists and cardiothoracic surgeons for patients admitted to the ICU for primarily cardiac issues. If the patient progresses to a multi-organ failure state, the intensivist must be consulted.

(c) The intensivist must be available for emergencies in the ICU during daytime hours and should, at other times, be able to return ICU contact (e.g., pages, calls, and e-mails) within 15 minutes. They should ensure emergent bedside coverage as required by a surrogate provider certified either through completion of the Fundamentals in Critical Care Support (FCCS) course, offered by the SCCM, or through completion of an equivalent training experience approved by the Medical Director of the ICU, ECOMS, and the MTF commanding officer. Periodic competency evaluations for these surrogate providers must be documented on biannual Ongoing Professional Practice Evaluation reports.

(d) The following specialty services should be available for consultation and the immediate initiation of care within 90 minutes as clinically required. Attendance at the bedside should be available within a time frame meeting local and professional standards as determined by ECOMS and approved by the MTF commanding officer: General Surgery or Trauma Surgery, Cardiology, Cardiothoracic Surgery, Anesthesiology, Pulmonology, Gastroenterology, Neurology, Neurosurgery, and Nephrology.

(e) The MTF commanding officer's discretion to make any changes to these stated policies may only occur after consultation with their regional commander.

(3) For Level III ICUs:

(a) The ICU should have a medical director who is fellowship trained critical care physician. The medical director shall:

1. Be a member of ECOMS.

2. Work closely with the ICU critical care nurse manager to ensure delivery of the highest quality of care to each patient.

3. Manage a critical care quality assurance, peer review and competency program.

4. Strive to implement best practices in critical care medicine in the ICU as promulgated by the Navy Medicine Critical Care Specialty Leader and national organizations such as the SCCM and the IHI.

5. Make recommendations to the credentials committee and the MTF commanding officer on the competence and scope of practice for potential surrogate ICU providers (any providers with admitting privileges to the ICU).

6. Develop individualized plans of supervision for surrogate ICU providers.

(b) Each MTF must establish written criteria for healthcare providers' authority to admit to the ICU and show ongoing competence in ICU practice with predetermined patient volume and acuity minimums. The ICU medical director is responsible for recommendations of competency to the credentials committee and the MTF commanding officer.

(c) Consultant services availability and expected time to consultation should be made clear to all inpatient providers that might admit to the ICU to ensure patients are appropriately dispositioned on initial triage. For example, if the gastroenterologist is on leave, the emergency room and inpatient wards must be reliably notified so that a patient with a gastrointestinal bleed is not admitted to the ICU but unable to get the appropriate treatment resulting in a delay of care.

(d) Expectations for consulting services are left to the respective MTF commanding officer but must be at a minimum equivalent to the local standard of care for consultations to the ICU. This includes policy on consultations by phone or at the bedside.

(e) Telemedicine consultation with other MTFs should be considered where feasible to provide critical care expertise and support for the MTF surrogate providers when the onsite intensivist is not available. Any telemedicine support should be arranged in advance with an appropriate memorandum of understanding (MOU) to specifically detail the support to be provided as well as expected response times. This will minimize undesired delays in patient care or delays in the transfer process.

(f) The MTF commanding officer's discretion to make any changes to these stated policies may only occur after consultation with their regional commander.

(4) Critical Care Nursing

(a) All Navy MTFs with ICUs must have a nurse manager with critical care certification or equivalent. A nurse manager is appointed to provide precise lines of authority, responsibility, and accountability for the delivery of high-quality patient care. Specific requirements for the nurse manager include the following:

1. A registered nurse with a Bachelor of Science in Nursing or preferably a Master of Science in Nursing (MSN) degree.

2. Preferably holds certification in critical care - Critical Care Registered Nurse (CCRN), equivalent, or higher certification based on graduate education such as Critical-care Clinical Nurse Specialist (CCNS), an Acute Care Nurse Practitioner (APRN), an Advanced Practice Registered Nurse (APRN), or other certification as approved by the Nurse Corps Critical Care Specialty Leader.

3. At least 3 years of experience working in a critical care unit, 4 years is preferred.

4. Experience with health information systems, quality improvement/risk management activities, and health care economics.

5. Familiarity with critical care nursing practice standards of the American Association of Critical Care Nurses with emphasis on implementing a healthy work environment.

6. Preparation to participate in the on-site education of critical care unit nursing staff.

(b) All Navy MTFs that train critical care nurses with no previous critical care experience must have a CCNS equivalent or higher. A CCNS is appointed to provide oversight in the training programs to include orientation of the critical care nurses and ongoing training for annual competency updates. Specific requirements for the CCNS include the following:

1. At least 3 years of experience working in a Level I or Level II critical care unit.

2. Experience with health information systems, education and training programs, and quality improvement/risk management activities.

3. Familiarity with critical care nursing practice standards of the American Association of Critical Care Nurses to include the healthy work environment initiatives.

(c) Nursing availability

1. All patient care is carried out directly by or under supervision of a trained critical care nurse.

2. All nurses working in critical care should be certified in critical care nursing or complete a clinical/didactic critical care course, such as the Essentials of Critical Care Orientation (ECCO) Course or score above an 80% on the Basic Knowledge Assessment Tool-8 (BKAT-8) before assuming full responsibility for patient care. For nurses new to the critical care environment, it is recommended that they complete both the ECCO course and the BKAT-8 prior to completing orientation.

3. Unit orientation is required before assuming responsibility for patient care.

4. Nurse-to-patient ratios should be based on patient acuity according to written hospital policies.

5. An appropriate number of nurses shall be trained in highly specialized techniques such as renal replacement therapy, intra-aortic balloon pump monitoring, and intracranial pressure monitoring for a Level I ICU. This also applies to training in ventricular assist device and extracorporeal membrane oxygenation monitoring, in hospitals that utilize these therapies.

6. All nurses should be familiar with the indications for and complications of renal replacement therapy.

7. FCCS or an equivalent training experience approved by the Executive Committee of Nursing Staff, ICU Medical Director, and the MTF commanding officer is required for Level I critical care registered nurses (CCRNs) with more than 6 months of experience.

8. Senior staff nurses should be identified and required to re-certify with FCCS or equivalent training, or renal replacement therapy training to fill those critical staffing shortages required to maintain the MTF's ICU I and II status.

(5) Respiratory Therapy Services

(a) Therapists must undergo orientation to the ICU before providing care to the patients, and must:

1. Be available on a 24-hour basis.

2. Be oriented and deemed competent to the various types of mechanical ventilators and ventilator modes utilized in the MTF ICU before working independently.

(b) Have an appropriate number of respiratory therapists with specialized training available to the ICU at all times. Respiratory therapists should maximize opportunities for collaboration on rounds and involvement in the multi-disciplinary meetings.

(6) Pharmacy Services

(a) Available in the MTF 24 hours per day.

(b) A "ready to administer" (unit dose) drug distribution system, intravenous admixture service, and a medication information system or computerized physician order entry must be available. Medication delivery in timely fashion is essential.

(c) Registered pharmacists shall prospectively evaluate all drug therapy orders, review and maintain medication profiles, monitor drug dosing, administration regimens, and drug-to-drug interactions. Pharmacists should maximize opportunities for collaboration on rounds and involvement in the multi-disciplinary meetings.

(7) Laboratory Services

(a) Available in the MTF 24 hours per day.

(b) Provide basic hematologic, chemistry, blood gas, and toxicological analysis in a timely manner.

(c) Provide emergency issue and routine blood components to include packed red blood cells, fresh frozen plasma, cryoprecipitate, and platelets.

(8) Radiologic Imaging Services/Procedures. Available in the MTF 24 hours per day including portable chest x-ray, Computed Tomography (CT) scans, CT-angiography, ultrasound, echocardiography, and fluoroscopy.

(9) Dialysis Services

(a) Available on a 24-hour basis.

(b) Provide emergent hemodialysis as required for critically ill patients.

(10) Social Services. Available 24 hours a day via phone, with evaluation of patients within 72 hours of admission.

(11) Physical Therapy (PT)

(a) A consultation to PT should be considered when any of the following are present:

1. Prolonged bedrest or immobilization, or anticipation of prolonged bedrest or immobilization.

2. Changes from pre-admission levels, or over the last 3-6 months, in activities of daily living, ambulation ability, balance, or strength.

3. New need for assistive devices such as a brace, orthotics, cane, crutches, or a walker, including appropriate sizing and training for safe use.

4. Discharge planning recommendations that may include the anticipated need for rehabilitation, durable medical equipment, or home care services.

(b) All PT staff working with patients in the critical or ICU must complete an orientation to the ICU before providing care to patients.

(c) Upon consultation, a licensed physical thearapist must evaluate and initiate treatment for patients within a 24 hour period or sooner if determined that a delay up to 24 hours will result in an adverse patient outcome. The evaluation and an appropriate plan of care must be established by the licensed physical therapist before PT assistants or technicians are involved in the care of any patient. Physical therapists providing care in this setting should maximize opportunities for collaboration on rounds and in multi-disciplinary meetings.

(12) Nutritional Services. Available 24 hours a day via phone, with evaluation of patients within 72 hours of admission.

d. Support of the Patient and Family. Per reference (b), which is available at: http://www.learnicu.org/Docs/Guidelines/Patient-CenteredIntensive.pdf, and as recommended by the Institute of Medicine, Navy MTF ICUs will endorse a shared-decision model based on a partnership between the patient, his or her appointed surrogate, and the multiprofessional team. To reduce family stress and improve consistency in communication, early and repeated care

conferencing should occur. ICU staff will honor culturally appropriate requests for truth-telling and informed refusal. Spiritual support will be provided as needed, as well as family support before, during, and after a death. Navy MTF ICUs will have open flexible visitation, way-finding and family friendly signage. Family presence will be encouraged at rounds.

6. Action

a. Navy Medicine Region Commanders shall determine the level of critical care services offered in keeping with their mission and goals, the regional standards for ICU care and the guidance as directed by reference (a) and this instruction.

b. The MTF commanding officers are responsible for implementing this instruction. They are ultimately responsible for ensuring that their MTFs are operating within the scope of their resources and have well established contingency plans for patients that require resources or care which they cannot provide at that time and that the regional standard of care is maintained at their MTFs.

(1) If there is a change in level of an MTF due to lack of qualified manning, facility or equipment issues, the facility shall inform any service, within and outside of the MTF that might be relying on the higher level ICU service, so that alternate arrangements for those critically ill patients can be made.

(2) Notification must also include emergency medical services personnel who may be involved in inter-facility transfer of stabilized critically ill patients expecting to receive higher level monitoring within an ICU.

(3) The MTF commanding officers of ICUs must ensure that a plan or standard operating procedure exists which denotes that in the absence of an intensivist or other specialty support, provisions exist for the immediate transfer of deteriorating critically ill patients to a higher level of critical care at either a civilian facility or MTF.

(4) MTFs with Level III ICUs will be limited to stabilization, resuscitation, and continued care of only those patients that they possess the resources and expertise to care for. All others must be transported to an ICU with comprehensive critical care services and more extensive resources. These parameters must be based on the specific MTF staffing, equipment, resources, and patient acuity. Though these facilities may only have one or two fellowship-trained intensivists, attention should be directed to ensuring staff have the necessary ICU experience and training to stabilize emergent patients.

(5) In MTFs where staffing and facility resources do not allow compliance with Level III standards, discontinuation of ICU services altogether is required.

c. SCCM Guidelines for all ICU Caregivers. Recommended guidelines for both intensivist and non-intensivist ICU staff training are found in reference (a) and its updates.

d. Telemedicine Applications in the ICU. Where practical, MTF leadership should explore the use of telemedicine ICU programs as an alternative to offset manning constraints and improve the quality of ICU services. These systems could augment ICU coverage via remote intensivists who act as an on call consultant by telephone or video conference and offer recommendations on critically ill patients. Depending on the specific MTF requirements, these remote intensivist services may be as simple as telephone consultation on a provider to provider basis or as complex as a 24/7 eICU service that monitors all ICU beds remotely on a continuous basis and is staffed by intensivists at all times. A specific MOU should be in place that clearly defines the roles and responsibilities of the remote service. Utilization of existing military resources for eICU or ICU teleconsultation services should be a priority to maximize the use of the Military Health System network.

7. Records Management. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV M-5210.1 of January 2012.

8. Reports. The reports required in paragraphs 5c(2)(c), are exempt from reports control per SECNAV M-5214.1 of December 2005, Part IV, Paragraph 7p.

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ACRONYMS

BKAT-8	Basic Knowledge Assessment Tool-8
CCNS	Critical-care Clinical Nurse Specialist
CCRN	Critical Care Registered Nurse
CT	Computed Tomography
ECCO	Essentials of Critical Care Orientation
ECOMS	Executive Committee of Medical Staff
FCCS	Fundamentals in Critical Care Support
ICU	Intensive Care Unit
IHI	Institute for Healthcare Improvement
MSN	Master of Science in Nursing
MOU	Memorandum of Understanding
MTF	Medical Treatment Facility
SCCM	Society of Critical Care Medicine
PT	Physical Therapy