

CRITICAL CARE ROTATION 2008 – 2009

Overview

- The critical care rotation provides Internal Medicine residents patient care experience and instruction in the Medical Intensive Care Unit (MICU) at LSU Hospital and the VA Medical Center. During the three-year program, residents typically rotate at both institutions. The rotation involves routine patient care in the MICU, critical care consultations in other units, participation in invasive procedures, and attendance at didactic conferences. Key aspects of the patient care are the interpretation of hemodynamic data; review of radiographs, CT scans, and MRI scans; review of laboratory data, and adjustment of mechanical ventilation. Formal resident education occurs during these activities and through daily patient care rounds with the faculty and critical care fellows.
- Residents are evaluated using the six competencies outlined by the ACGME. The specific goals of the rotations and methods of assessment are listed below.
- Residents assigned to the MICU at LSUHSC will be assigned attend their General Medicine Continuity Clinic no more than two weeks out of the month. The schedule is established monthly by the Chief Resident and Education Coordinator, and listed on the MICU call schedule.

Critical Care Subspecialty Coordinator

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Learning Venues/ Activities

Critical Care Rounds: Rounds take place seven days a week with faculty and fellows. Patients are examined, events of the previous 24 hours are reviewed, and diagnostic and radiographic data are reviewed. A therapeutic plan is formulated and is modified as necessary over the next 24 hours.

Night coverage of Coronary Care Unit patients: The MICU on call team provides nighttime coverage of patients admitted to the Coronary Care Unit, unless the Cardiology inpatient team is on call. The Cardiology team, together with the attending and subspecialty fellow assigned to the team, are responsible for check out of patients to the MICU team at the end of the day. The MICU team is responsible for documenting significant developments on these patients during the evening and verbally reported to the Cardiology team the next morning. It is expected that these exchanges be educational, not just administrative.

Critical Care Conferences

- *Core Curriculum Conference*, Wednesday 11:30 a.m. – 12:30 p.m., BRI Room 7-42: Pathophysiology of specific disease processes is presented by key faculty.
- *Case Conference*, Thursday 11:30 a.m.-12:30 p.m., BRI Room 7-42: Case presentations with disease review, alternating weekly with journal article presentations. Critical care fellows direct the conference.
- *Critical Care Journal Club*, second Tuesday of each month at various locations in the city: Physicians from both the academic and private sector participate.
- *Department of Medicine Grand Rounds*, Tuesday 12-1 p.m., Room 3-322: Critical care topics are frequently presented by faculty or invited guests.
- Residents assigned to critical care rotations are encouraged to attend the Department of Medicine noon conference when clinical responsibilities permit.

Learning Resources

- Standard Medicine and Critical Care textbooks.
- Relevant sections of UpToDate
- LSUHSC-S Critical Care disease management and procedure guidelines: available online at www.ccm.lsuhs-c.edu.
- Reading list: See the online American Thoracic Society reading list, which is updated annually: www.thoracic.org/go/atsreadinglist.

Evaluation Methods

- Global faculty evaluation at end of rotation (*all competencies*)
- Clinical evaluation exercises: Interviewing skills, examination skills; counseling skills; medical knowledge and diagnostic interpretation; documented through *MyEvaluations* (*medical knowledge, patient care; interpersonal and communication skills*) Specific medical knowledge, medical knowledge, and diagnostic interpretation exercises may focus on, but are not limited to:
 - Interpretation of chest radiographs and CT scans
 - Ventilator settings and management
 - Hemodynamic parameters
- Online procedure certification through *MyEvaluations*

Educational Goals

Patient Care

- PGY-1: Develop skill in recognizing the critically ill patient

- PGY-1: Develop skill in taking a medical history from and examining the critically ill patients
- PGY-1: Learn to interpret the daily parameters used in the care of critically ill patients: cardiovascular, respiratory, renal/electrolyte, and gastrointestinal/nutrition
- PGY-1, 2, 3, 4: Learn to manage patients requiring mechanical ventilation, including initiation, adjustment, and weaning
- PGY-1, 2, 3, 4: Develop skill in performing invasive procedures, including but not limited to, endotracheal intubation, placement of vascular access, thoracentesis, paracentesis, and lumbar puncture
- PGY-2, 3, 4: Learn the Indications, risks, benefits, and interpretation of hemodynamic monitoring
- PGY-2, 3, 4: Learn to assess properly the need for volume resuscitation, and the need to institute/adjust inotropic and/or vasoactive substances
- PGY-1, 2, 3, 4: Understand and implement comprehensive care plans in critically ill patients

Medical Knowledge

- PGY-1, 2, 3, 4: Develop a knowledge base for the following:
 - Pathophysiology of severe sepsis
 - Criteria used during invasive hemodynamic monitoring and interpretation of the data
 - Pharmacology of inotropic and vasoactive substances
 - Criteria for admission and discharge in the ICU
 - Pathophysiology of respiratory failure and the physiology of mechanical ventilation
- PGY-2, 3, 4: Understand the physiology of multiple disease processes seen in the ICU, including but not limited to:
 - Alterations in acid – base status
 - Alterations in blood pressure
 - Cardiac ischemia and dysrhythmias
 - Neurologic emergencies
 - Gastrointestinal bleeding
 - Endocrine emergencies

Practice Based Learning (PGY-1, 2, 3, 4)

- PGY-1, 2, 3, 4: Demonstrate pattern of Identifying gaps in medical knowledge during the evaluation of patients in the intensive care unit.
- PGY-1: Demonstrate a pattern of devoting the time necessary to completing the designated education goals.
- PGY-2, 3, 4: Learn the principles of clinical research in critical care medicine.

Interpersonal and Communication Skills

- PGY-1: Develop skill in interviewing patients in the critical care setting.

- PGY-1: Develop skill in writing a structured daily progress note that addresses appropriately all aspects of management of a patient in the ICU.
- PGY-1: Learn to make patient presentations to the ICU team, including history, physical examination, diagnostic studies and their interpretation, assessment, and therapeutic plan.
- PGY-2, 3, 4: Learn to communicate with consulting services, nursing and respiratory care personnel, and other ancillary services.
- PGY-2, 3, 4: Develop skill in explaining patient findings and therapeutic plans to the patient and/or family, in obtaining informed consent for ICU procedures, and in communicating bad news.
- PGY-2, 3, 4: Develop skill in discussing “do not resuscitate,” “do not intubate,” and other advance directives with patients and families.

Professionalism

- PGY-1, 2, 3, 4: Demonstrate courteous and professional behavior during encounters with patients and families.
- PGY-1, 2, 3, 4: Demonstrate appropriate professional relationships with colleagues, faculty, and other members of the hospital staff.

Systems- based Practice

- PGY-1: Recognize the skills and practice parameters of critical care nurses and learn to develop integrated care plans with them.
- PGY-2, 3, 4: Learn to triage potential admissions to the ICU when resources are limited.
- PGY-2, 3, 4: Deal appropriately with requests for transfer of patients to the ICU from outside facilities.