Surgical Intensive Care Unit
University of Texas Medical Branch and Methodist
Goals, Objectives, and Resident Responsibilities

**ROTATION GOAL:**
The purpose of the surgical intensive care unit (SICU) rotation is to provide the CA-1 and 2 residents with a clinical and didactic experience to facilitate the care of critically ill patients in the perioperative period.

**LEARNING OBJECTIVES:**

**Patient Care**
Residents are expected to:
- Examine all patients prior to morning and afternoon rounds.
- Evaluate the severity of disease of the critically ill patient and recognize, prioritize, and treat life-threatening derangement in homeostasis.
- Learn indications, contraindications and techniques of invasive monitors (arterial lines, CVP, pulmonary artery catheters) and interpretation and application of hemodynamic data.
- Learn basic and advanced principles of airway management, including oxygen delivery, respiratory therapy, and institution, management and weaning of mechanical ventilatory support for the critically ill patient.
- Learn bronchoscopic techniques for pulmonary evaluation and culture sampling
- Learn to medically manage critically ill patients, including the patient with multi organ failure (MOF), sepsis, Systemic Inflammatory Response Syndrome (SIRS), and Acute Respiratory Distress Syndrome (ARDS).
- Provide direct patient care in cases of acute patient distress or emergency

**Knowledge**
Residents are expected to:
- Learn pathophysiology of conditions common to critically ill patients including multi organ failure (MOF), sepsis, Systemic Inflammatory Response Syndrome (SIRS), and Acute Respiratory Distress Syndrome (ARDS).
- Understand and interpret acid-base disturbances
- Understand and treat common coagulopathies
- Learn the concepts and practice of routine ICU procedures including central line placement, arterial catheterization, pulmonary artery catheter placement and use, ventilator management, and broncoscopy
- Interpret blood gas results and apply to patient management and ventilator therapy
- Be prepared to discuss scheduled topics during daily afternoon lectures in the SICU conference room

**Practice-Based Learning and Improvements**
Residents are expected to:
- Locate and appraise scientific studies to guide patient care.
- Locate and use information necessary to further their own education and improve their patient care practices.
- Facilitate learning of medical students, junior residents, and off-service residents.
- Assimilate information learned throughout the month and critically evaluate their own functioning.

**Interpersonal and Communication Skills**
Residents are expected to:
- Present information in an organized fashion on rounds to the ICU team and help develop a treatment plan for the day.
- Keep faculty informed of changes in patient status.
- Learn and practice functioning as a team leader in recognition and therapy of cardiovascular emergencies.
Actively participate in rounds, SICU daily activities such as line changes, ventilator changes and patient orders
Effectively communicate and coordinate with the primary surgical service changes in patient condition or treatment plan
Facilitate communication between the primary service, ICU team, and other consultants

Professionalism
Residents are expected to:
- Demonstrate respect, compassion, and integrity in all aspects of patient care
- Assume call responsibilities promptly at 0700
- Participate in the Department of Anesthesiology morning lectures, M&M conferences and case conferences when not on call or post call
- Participate in multidisciplinary rounds

System-Based Practice
Residents are expected to:
- Effectively communicate and work with the primary surgical service and other consultation services in daily management of patients
- Review relevant history, vitals, and labs and be familiar with the ongoing care plan (including all medical treatments, planned surgery, antibiotics, vasoactives, nutrition, physical therapy, new consults, pain control, and social issues)

DESCRIPTION OF ACTIVITIES
The PGY-2 resident must complete a minimum of six months of clinical anesthesia and six months of CB before beginning the SICU rotation. The resident is assigned to the SICU for one month and is under the direction of the anesthesiology and/or surgical critical care faculty assigned to the SICU.

Residents are expected to actively participate in rounds, SICU daily activities, such as line changes, ventilator changes, and patient order changes.

The resident assigned to the SICU represents the on-site physician and covers all of the critically ill patients in the unit. The SICU is an open concept unit, where the surgical service admits and maintains primary control for the medical direction of the patients care. The SICU service works concurrently with the surgical service in the daily management of the patient. As such, interventions that are elective or urgent should only proceed after discussion with the primary service and other consultants involved in the care of the patient. In cases of acute patient distress or emergency, the ICU resident will provide direct patient care while the primary service is notified.

Residents are expected to learn the concepts and practice of routine ICU procedures, including central line placement, arterial catheterization, pulmonary artery catheter placement and use, ventilator management, and bronchoscopy. Prior to initiating any procedure, the resident needs formal instruction from an ICU faculty, including proper technique, indications, risks, benefits, and utilization. They must have direct faculty supervision for all procedures until deemed proficient. Subsequent procedures can be performed with the faculty present or available on approval. All procedures that are elective or urgent are performed after discussion with the primary surgical service.

Residents not on call or post call are expected to participate in Department of Anesthesiology morning lectures, M&Ms, and case conferences. In addition, there will be afternoon lectures daily in the SICU conference room. Residents are expected to read on the topics scheduled and be prepared to discuss them with the team. In addition, each resident will be expected to prepare a brief presentation on a critical care topic to present to the rest of the ICU team during one afternoon lecture.

Finally, residents are expected to exam all patients prior to morning and afternoon rounds. This will include examining the patient, reviewing relevant history, reviewing all vitals and labs, and being familiar with the ongoing care plan (including all medical treatments, planned surgery, antibiotics, vasoactives, nutrition,
physical therapy, new consults, pain control, and social issues). The resident will then present this information in an organized fashion on rounds to the ICU team, and help develop a treatment plan for the day.

It will be the responsibility of the resident, with assistance from the senior resident, fellow, and faculty, to communicate with the primary service any changes in patient condition and treatment plan, and coordinate efforts for the care of the patient. Communication with the primary surgical service must occur prior to changing a care plan in all elective and urgent situations. In case of acute patient distress or patient emergency, instruct the nurses to immediately contact the primary service while attending to the patient. When the primary service arrives, coordinate further efforts as indicated by the patient condition.

CALL
The resident takes call in the SICU during the rotation. The work duty hours as mandated by the ACGME are limited to 80 hrs per week, a minimum of 10 hrs off between duty periods, a maximum of 24 hours on call (with a maximum of 6 hrs for continuity of care), no more call than every third night, and one day off in seven worked. At the end of the month, duty hours completed will be reported to the Department of Anesthesiology by the resident. When on call, the SICU resident must remain on the unit at all times (when brief periods of absence are required, inform the charge nurse prior to leaving and upon your return) to assure continuity of care for all ICU patients.

Call responsibilities begin at 0700 and end at 0700 the subsequent day. As a maximum of 24 hours are allowed, no new patients will be accepted after 0700 the day following call; patients will be admitted by the next resident on call. A maximum of six hours for continuity of care are allowed following call; this will be time for notes, rounds, and checkout. The call schedule will be completed by the senior resident and approved by the ICU faculty and will not be changed unless approved by the rotation director.

Specific call responsibilities will be given to the resident assigned to the SICU at Methodist on the first day of the rotation.

EVALUATION
The resident is evaluated by all SICU Faculty with whom he/she worked during the month and entered by a single faculty into the UTMB Clinweb evaluation system; additional written evaluation may be solicited from Rotation Director of the SICU as warranted.