

<b>Clerkship title:</b>	Medical ICU Critical Care Unit (MICU)
<b>Sponsoring department or unit:</b>	Department of Internal Medicine
<b>Name of clerkship director:</b>	Harold Hughes, MD, FCCP
<b>Location</b>	University Medical Center of El Paso

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### Overview

This is a 4-week rotation in the Medical Intensive Care Unit (MICU) at University Medical Center of El Paso. It meets the fourth year critical care requirement at the PLFSOM. The students will spend an average of 6 hours per day participating in the care of patients admitted to this unit.

### MICU Daily schedule and expectations:

The MICU daily schedule starts with the student rounding on his/her assigned patients. Student will be assigned up to 3 patients. The student must arrive early enough to round on his/her patient and fill out the daily note. This note is on a template arranged by system. The student will attend morning report in the ICU conference room at 7:30 a.m. on days assigned. The student will then round with the team following morning report. Once team rounds end, the student will either attend a didactic session or help with

completing work. This work may also complete the student's goals and objectives. For example, the student may write a transfer summary as part of the daily work.

The student will report to the MICU senior resident during the day. The student will be assigned as if an intern, that is one day per week will be completely off. The student will work no more than 12 hours per day. During the day, the student will be expected to follow up on test results, either x-rays, laboratory tests or other, including consults. Since the student may not give orders, if there is a need for his/her patient, the student will report to the senior resident, or on days the resident is off, the designated resident.

## **Clerkship Objectives**

Each fourth-year medical student of the Paul L. Foster School of Medicine (PLFSOM) will be required to complete a 4-week rotation in a critical care unit, for example, the Surgical Intensive Care, Medical Intensive Care, Pediatric Intensive Care, Neonatal Intensive Care, Neurology Intensive Care or Cardiovascular Intensive Care.

The MICU is a 4-week rotation that mimics, to the degree possible, the ICU experience of an Internal Medicine resident in their first year of post-graduate training.

The educational goals and objectives were developed internally and are consistent with guidelines provided by the American Board of Internal Medicine and appropriate Critical Care subspecialty organizations.

## **MEDICAL KNOWLEDGE**

### **GOALS:**

Students will acquire basic critical care knowledge and skills while developing professional attitudes and behaviors in the care of adult patients on the MICU service.

Each medical student will be instructed by MICU faculty and resident physician MICU team members on relevant patient care issues requiring medical knowledge of the following conditions:

- Acute Respiratory Failure
- Multiple Organ Failure
- Hemodynamic Instability
- Severe Metabolic Disorders
- Acute Neurological Conditions

Students will understand the etiology, diagnosis and treatment of the conditions being managed while reading necessary texts and articles.

### **OBJECTIVES:**

By participation in this rotation, the student will demonstrate an acceptable level of proficiency in the following:

- Formulate a plan for the cost-effective diagnosis of diseases commonly seen by general internists and critical care specialists in the MICU setting (*PGO 1.3, 1.2, 2.2, 2.3*)
- Communicate prognosis and plan of care with patients and families using lay terms (*PGO 2.5, 4.1*)

- Initiate discussion of end-of-life issues and advanced directives in a culturally sensitive manner (*PGO 2.5, 5.4, 4.1*)
- Formulate and clearly communicate clinical histories and the plan of care to members of the health care team both verbally and in the form of written orders and progress notes (*PGO 4.2*)
- Develop a systematic approach to organizing and acting upon clinical information in a time efficient manner (*PGO 1.4*)
- Evaluate their own fund of knowledge and utilize available resources to provide evidence based answers to clinical questions (*PGO 3.1*)

**ASSESSMENT:**

Clinical evaluations by faculty and residents.

**PATIENT CARE**

**GOALS:**

Medical students will be introduced to complex adult medical patients with critical illnesses requiring extensive monitoring and hemodynamic management. The goal is for each student to:

- Be responsible for understanding his or her patients' medical conditions throughout the student's rotation
- Provide appropriate treatment and examination studies of his or her patients in conjunction with the MICU team
- Have exposure to invasive monitoring techniques including central venous access and arterial lines
- Develop an appreciation for the intensive, around-the-clock patient care needs
- Experience and participate in end-of-life ethical issues, including the potential for organ procurement

**OBJECTIVES:**

The student should become competent in performing and accurately recording a complete history and physical with assessment, differential diagnosis and plan.

To achieve the goals, each student should:

- Participate in common ICU procedures including central line placement, endotracheal intubation, ABGs, NG tube insertion, lumbar puncture. (*PGO 1.2, 1.6*)
- Develop skills in ventilator management and weaning protocols. (*PGO 1.2, 1.6*)
- Have the skills to interpret lab tests as ABGs, EKGs, CXR, electrolytes etc. (*PGO 1.3*)
- Be able to learn effective communication skills with patients and families using appropriate language and avoiding jargon and medical terminology. (*PGO 1.8, 4.1, 5.1*)

**ASSESSMENT:**

Clinical evaluations by faculty and residents.

**INTERPERSONAL AND COMMUNICATIONS SKILLS**

**GOALS:**

Management of critically ill patients requires a team approach involving multiple levels of communication. Medical students will be:

- Able to provide compassionate and empathic patient care in acute care settings.
- Sensitive to the diverse factors affecting patients and their health care beliefs and needs including race, culture, income and ethnicity.
- Able to develop effective communication skills with the staff including other physicians, nurses, respiratory therapists and social workers for better patient care delivery.

**OBJECTIVES:**

- During daily rounds, medical students will present their patients in the expected and accepted format. (PGO 4,2)
- Students will be expected to communicate treatment plans with a minimum of 2 patients in the MICU while under direct observation of the MICU faculty member. (PGO 4.1, 4.2)

ASSESSMENT:

- Clinical evaluations by faculty and residents.

**PROFESSIONALISM**

GOALS:

- Medical students will be expected to arrive in a timely fashion for all weekday rounding activities in the MICU
- Adequate preparation of patient information prior to rounds
- MICU rounds are often long and extensive, appropriate behavior and attentiveness is expected throughout the experience on a daily basis
- Practice and respect patient privacy and confidentiality while maintaining highest standards of professionalism.
- Discuss ethical issues including end of life care.

OBJECTIVES:

- Medical students will be present and prepared a minimum of 10 minutes prior to rounds on each day. (PGO 5.3, 5.7)
- All relevant laboratory and imaging results must be presented to the MICU team by the medical student for those patients that s/he is following.(PGO 5.7, 5.3, 5.6)
- Demonstrate ethical principles related to patient privacy, autonomy, and informed consent. (5.2).
- Demonstrate sensitivity, compassion, integrity, and respect for all people (5.1)

ASSESSMENT:

Promptness and preparation for rounds will be assessed by rounding Critical Faculty.

Clinical evaluations by faculty and residents.

**PRACTICE BASED LEARNING AND IMPROVEMENT**

GOALS:

- While on their MICU rotation, each medical student will learn to present patient data in a coherent fashion to team members and consultants.
- Students will be instructed and educated about obtaining current best practices related to the care of their particular patients.

OBJECTIVES:

- Students will be expected to coherently discuss their patients' conditions and relevant medical management.(PGO 4.1, 4.2)

- Students will demonstrate the ability to access and obtain medical knowledge resources through appropriate electronic media. (PGO 3.1, 3.4, 8.5)

**ASSESSMENT:**

Clinical evaluations by faculty and residents.

**SYSTEMS-BASED PRACTICE**

**GOALS:**

Medical students will learn:

- Typical criteria requiring MICU admission
- The importance of discharge planning for MICU patients and local resources that are available

**OBJECTIVES:**

- Each student will be expected to provide a written discharge plan for at least one patient. (PGO 1.7, 6.4)
- Students will be expected to discuss appropriateness of MICU admissions (PGO 6.1, 6.2, 6.4)

**ASSESSMENT:**

Critical Care faculty will assess the written discharge plan which will be placed in the student's portfolio. Clinical evaluations by faculty and residents.

**INTERPROFESSIONAL COLLABORATION SKILLS**

**GOALS:**

- While on their MICU rotation, each medical student will learn to present patient data in a coherent fashion to team members and consultants.

**OBJECTIVES:**

- Students will be expected to understand the roles and work professionally with other health care personnel including nurses, technicians, and ancillary service personnel. (PGO 4.2, 7.1, 7.2, 7.3)
- Is an important, contributing member of the assigned team. (PGO 7.3)
- Responds appropriately to circumstances involving conflict with other health care professionals or team members (PGO 7.4)

**ASSESSMENT:**

Clinical evaluations by faculty and residents.

**PERSONAL AND PROFESSIONAL DEVELOPMENT**

**GOALS:**

- Students will be instructed and educated about obtaining current best practices related to the care of their particular patients.

**OBJECTIVES:**

- Recognizes when to take responsibility and when to seek assistance (PGO 8.1)
- Demonstrate flexibility in adjusting to change and uncertainty. (PGO 8.3, 8.4)

- Demonstrates the ability to employ self-initiated learning strategies when approaching new challenges, problems, or unfamiliar situations. (PGO 8.5)

**ASSESSMENT:**

Clinical evaluations by faculty and residents.

**Clinical Experiences and Op Log Requirements:**

The selective clerkship director is responsible for ensuring that each student is being exposed to appropriate clinical experiences. Students are expected to review the selective syllabus and to discuss expectations and procedures at the beginning of the rotation. The selective director will also meet with the student as needed to review their patient care experiences.

A minimum of 10 op log entries are required with one of each in the following categories at the level of assist or manage:

- Acute respiratory failure
- Multiple organ failure
- Hemodynamic instability
- Severe metabolic disorder
- Acute Neurological Disorders

Five op log entries are due by mid-clerkship evaluation and the remainder is due by the end of the rotation.

The selective director will devise a strategy for addressing deficiencies if a condition is not encountered. In rare circumstances it may be necessary to assign students computerized cases, simulations, or special readings to achieve objectives that are not being met through actual patient care.

**Mid Clerkship Feedback:**

Students will have a mid-clerkship evaluation in order to assist them with progress in MICU ICU; requirements, expectations, and possible methods of remediation will be discussed at that time. This will take place after at least two weeks in the medical ICU. The exact date will be assigned by the clerkship coordinator.

**Grading Criteria:**

Assessment is based on the criteria described above under each competency. Failure of preparation for or completion of clerkship activities may result in a lower grade at the discretion of the clerkship director. As outlined in the Common Clerkship Requirements, it is expected that over the course of the rotation, student performance will have improved in many or all categories, based on constructive feedback and growing familiarity with the clinical discipline and patient care. The final assessment represents the student’s final level of achievement. Also, please refer to the Common Clerkship Requirements, Section on Grading Policies.

**Missed Events:**

Please refer to the Common Clerkship Requirements.

**Remediation:**

The clerkship director will meet with students needing remediation and discuss a remediation strategy specific for objectives which are deficient. For example, if the notes are incomplete, the clerkship director can meet with the student about the note.

**Preparation for Teaching**

Attending faculty and residents (see below) will be oriented to the experience by the MICU selective director and provided copies of the syllabus and evaluation form that they will use to assess student performance.

Residents will be required, as part of their training and orientation, to function as teachers. All residents are required to participate in a “Residents as Teachers” program that is administered by the Office of Graduate Medical Education. In addition, each resident will be provided copies of the Medical Student MICU syllabus with particular emphasis on goals, objectives, and assessment methods and criteria.

At present all instruction and clinical activity related to this critical care selective occurs at one site, University Medical Center of El Paso.

**Assessment Forms:**

Copies of assessment forms will be posted on Canvas.