

Cardiovascular Intensive Care Unit Critical Care / Intensive Care Unit Experience (CVICU)

INM.M500

Duration: 4 weeks

Enrollment: Maximum 2 students

Prerequisites: Successful completion of third year clerkships

Course Director: James M. Cunningham, MD, FACS, FACCP, FACC

Contact phone : (478) 633-5794 or (478) 633-6071

E-mail: cunningham.james@mccg.org

Course Goal: To provide fourth year medical students a basic understanding of the unique aspects of critical care as applied primarily to the post-operative cardiothoracic and vascular surgery patient population in an intensive care unit setting. Opportunities for learning about the principles of surgical and medical critical care will be provided.

General Description: This 4-week rotation will allow the student(s) to actively participate in the care of critically ill patients in conjunction with other members of the ICU team.

Interaction with nurses, pharmacists, respiratory therapists, nutritionists, social workers, and other members of the multidisciplinary team will be encouraged and expected during rounds three times per week. Communication skills will be emphasized.

During the rotation the student(s) will be exposed to a wide variety of pre-op and post-op cardiothoracic patients as well as critically ill patients with non-surgical medical problems. Each student will be expected to assist with the management of one or two patients along with the critical care team. Members of the team will instruct the student(s) in basic ventilator management, hemodynamic monitoring, pre-op and post-op assessment of the cardiothoracic patient, interpretation of x-rays, evaluation of lab results, appropriate use of antibiotics, and the fundamentals of critical care. Depending upon the patient population, the technical aspects of central venous catheter insertion, bronchoscopy, cardioversion, etc will be demonstrated with options for the student(s) to actively participate according to his/her ability. The current and evolving role of the intensivist will be discussed.

Learning Outcome Objectives:

After this rotation, students will be able to:

1. Outline the accepted indications for admission to and transfer from an ICU
2. Comprehend the rationale behind a multidisciplinary approach to the care of critically ill patients
3. Demonstrate active and appropriate participation in the care of critically ill patients in the ICU setting utilizing the multidisciplinary team model
4. Provide appropriate airway management and understand the basics of respiratory support using a mechanical ventilator
5. Recognize and treat life-threatening conditions which are common in the ICU with special emphasis on those conditions encountered in the post-op cardiothoracic surgical patient

CVICU Learning Outcome Objectives: (CONT'D)

6. Provide appropriate fluid, electrolyte, and nutritional support for the critically ill patient
7. Determine the etiology of hemodynamic instability in the ICU patient and provide appropriate treatment
8. Demonstrate an understanding of the pathophysiology associated with the common conditions and problems encountered in the ICU
9. Diagnose and manage acute renal failure
10. Actively participate in the performance of procedures performed in the ICU setting under the direct supervision of the teaching faculty
11. Understand common patient and family psychological issues which may have direct or indirect effects on patient care in the ICU
12. Understand the most common ethical issues involved in critical care medicine including patient autonomy, consent, end-of-life care, and withdrawal of care

Duty Hours: 0800 – 1630 Monday – Friday

Call: None required

Expectations: Report on time and dress appropriately – clean scrubs are acceptable. Be available for rounds, new admissions, and procedures. A detailed, daily progress note on each assigned patient is encouraged but not mandatory if there has been little change in a patient's status overnight. Presentation of assigned patients during multidisciplinary rounds is expected. Attend teaching sessions and complete assigned readings.

Evaluation: The student(s) will be evaluated on his/her clinical skills utilizing a written as well as a practical exam given at the end of the rotation. The final grade is pass/fail.

Appendix A: CVICU Procedure List

Students may have an opportunity to perform or assist with the following procedures under faculty supervision. The patient population mix will determine procedure availability.

- Central venous catheter insertion
- Insertion of pulmonary artery catheter
- Insertion of arterial monitoring catheter – either radial or femoral artery
- Insertion of chest tube
- Thoracentesis
- Orotracheal intubation
- Tracheostomy – percutaneous approach
- Insertion of Foley catheter
- Placement of enteral feeding tube
- Bronchoscopy
- Cardioversion