

# CARDIAC INTENSIVE CARE UNIT

Senior Fellow

## Overview

Your experiences on the Critical Care Unit will be a process for continuing to hone your clinical skills, and develop mastery of management of the most complex and challenging cases. This rotation has been developed based on the ACGME outlined competencies with special emphasis on applying them on the critically ill.

You will be supervised by an attending on the Critical Care faculty. You will be responsible for the evaluation of the critically ill and will formulate plans directed at their evaluation and proposed treatment. The CICU at AdventHealth Orlando is supervised by Dr Maria Carrillo.

## Learning Resources

Didactic lectures with the attending as well as multidisciplinary bedside rounds in the ICU will form the foundation for the instruction in the ICU. There will be assigned readings and review articles and you will be expected to participate in the weekly ICU didactic series. Additionally, you will be expected to perform literature searches of medical conditions experienced by your patients during your rotation.

## Goals & Objectives

### Patient Care

1. Communicate effectively and demonstrate caring, respectful behaviors when interacting with patients and their families.
2. Identify the important syndromes in critical care medicine and outline and direct their management.
3. Learn to focus on the critical care differential diagnoses in the appropriate clinical settings.
4. Use the clinical history, laboratory and radiologic studies to derive a critical care differential diagnosis for a given critically ill patient.
5. Take a careful history including travel, occupational, and environmental exposures to aid in the development of a differential diagnosis in the critically ill.
6. Counsel and educate patients and their families.

### Medical Knowledge

1. Understand the approach to the critically ill patient.
2. Develop the ability to rapidly evaluate, diagnose, stabilize, and make a disposition on critically ill adult patients.
3. Learn respiratory, cardiovascular, renal and neurologic physiology and the pathophysiology of shock, sepsis, cardiac failure, and respiratory failure that affect critically ill patients.
4. Learn the principles of medical instrumentation and hemodynamic monitoring and be able to utilize them in the care of critically ill patients.
5. Learn the management of cardiac support and monitoring devices such as impellas, intra-aortic balloon pumps, and swan-ganz catheters.
6. Learn the indications and develop the technical skills needed to perform diagnostic and therapeutic interventions in critically ill patients.
7. Learn the rational use of laboratory, radiographic and other diagnostic tests in the management of critically ill patients.

8. Demonstrate the ability to perform the following procedures: oral endotracheal intubation, nasotracheal intubation, cricothyrotomy, needle thoracostomy, tube thoracostomy, central intravenous placement, pulmonary artery catheter placement, trans-venous cardiac pacing, arterial line placement, indwelling urinary-bladder catheterization, thoracentesis, paracentesis, and bronchoscopy.
9. Demonstrate the ability to use and interpret data from ECG's and monitors, cardiac outputs, hemodynamic monitoring, arterial blood gases, pulse oximetry, end-tidal CO2 monitors and ventilators.
10. Describe the dosages, indications and contraindications of pharmacological interventions for shock, cardiac failure, dysrhythmias, sepsis, trauma, respiratory failure, hepatic failure, renal failure, and neurologic illnesses.
11. Demonstrate the ability to manage a patient on a ventilator.
12. Demonstrate appropriate judgment in the management of critically ill patients.
13. Demonstrate appropriate prioritization of diagnostic and therapeutic interventions in critically ill patients.
14. Demonstrate ability to diagnose and treat shock, sepsis, fluid and electrolyte abnormalities, cardiac failure, cardiac dysrhythmias, renal failure, hepatic failure, and toxicological emergencies.

#### Practice Based Learning and Improvement

1. Search and integrate evidence of scientific studies to their patient's health problems.
2. Using a systematic methodology, fellows will apply practice-based improvement activities to develop and implement treatment plans to help manage patients who are critically ill.
3. Fellows are expected to support their own education with the use of on-line medical journals and technology to be able to improve patient care.
4. Search information based on their diverse patient population census.

#### Interpersonal and Communication Skills

1. Communicate the diagnosis, treatment plan and prognosis with empathy to the patients and their families.
2. Respect patient confidentiality.
3. Work effectively with medical students, residents/fellows, consultants and nursing/technical staff.

#### Professionalism

1. Fellows are expected to arrive on time daily. They must be dressed in professional attire and be ready for work.
2. Demonstrate respect, compassion and empathy for every patient and their family members.
3. Be committed to the ethical principles in all aspects of critical care including patient confidentiality and informed consent.
4. The fellow should be sensitive to the patient's culture, gender, age and disabilities.

#### System Based Practice

1. Fellows will learn to develop, evaluate and implement treatment plans for the critically ill.
2. Will learn when to obtain consultations from relevant subspecialists.
3. Will develop the ability to select the most cost-effective treatment plans for critically ill patients while meeting national quality standards.
4. Learn to advocate for patient safety measures.

**Methods of Achieving Goals**

1. Management of patients in critical care units.
2. Performance of invasive monitoring procedures.
3. Management of the ICU team and facilitation of multidisciplinary rounds
4. Attendance at weekly fellowship lectures and monthly journal club

**Evaluation and Feedback on Goal Achievement**

1. Formal written evaluation by Critical Care attending staff.
2. Fellow feedback:
  - A. Evaluation at end of rotation.
  - B. Semi-annual fellow evaluation.
3. Performance on In-Training Examination.