



## Educational Goals and Objectives for Rotations on: Surgical Critical Care/Intensive Care Unit

#### Goal

The goal of the surgical critical care/Intensive Care Unit rotation is to develop the knowledge, skills, and attitudes necessary to evaluate, diagnose, and manage critically ill surgical patients.

Objectives for PGY-2 Residents: At the end of the PGY-2, residents will:

## Patient Care

- Understand the use of and limitations of monitoring equipment commonly used in the I.C.U. and operating room.
- Have close contact with a variety of disease processes with altered physiology in the I.C.U. and in the operating room.
- Learn how to utilize ventilators to optimize pulmonary function.
- Interpret data from hemodynamic monitors and utilize the appropriate fluid management, inotropes and pressors to optimize hemodynamic status.
- Study altered physiologies in fluid and electrolytes and renal function to provide optimal fluid and electrolyte management to patients with impending and acute renal failure.
- Interpret the results of bacteria culture and determine appropriate antibiotics usage.
- Interpret results of nutritional analysis to formulate appropriate strategies for nutritional repletion.
- Understand the principles of intensive neuromonitoring and manage states of decreased level of consciousness and increased intracranial pressure.
- Determine the relationship between treatment of surgical disease through operation intervention and the impact of this on organ physiology.
- Provide the adequate and appropriate sedative, analysesic and amnesic agents.
- Become facile in the insertions of central venous catheters, hemodynamic monitoring
  using trans-thoracic and transesophageal echocardiography, arterial lines, jugular
  venous monitoring, nasojejunal feeding catheters, intubation, tracheostomy,
  percutaneous tracheostomy, and percutaneous endoscopic gastrostomy. The resident
  will perform and/or assist on operations for open tracheostomies, open gastrostomies,
  escharotomy, fasciotomy and skin-grafting.
- Gain endoscopic experience including: bronchoscopy, as well as upper and lower GI endoscopy.
- Be able to provide acute resuscitation and chronic management to patients with chemical, inhalation, and thermal injury, when rotating on the Burn Service.

# Medical Knowledge

- Have an understanding of the pathophysiology of the hemodynamic, pulmonary, renal, immunologic, and nutritional aspects of the management of a critically ill surgical patient.
- Have an understanding of fluid and electrolytes and renal physiology.





- Be able to describe the metabolic and physiologic responses to severe burns, when rotating on the Burn Service.
- Be able to list the stages of wound healing and factors that may impair this process, when rotating on the Burn Service.
- Attend conferences including Morning Report, Grand Rounds, Morbidity and Mortality Conference and Service-specific didactic conferences.

#### Practice-based Learning and Improvement

- Assimilate scientific evidence into patient care.
- Recognize the need for improvement in one's own medical knowledge, surgical skills, and patient care.
- Participate in Surgical Critical Care Conference Journal Club.
- Participate in Morbidity and Mortality Conference.

#### Professionalism

- Participate in the evaluation of patients requiring consultation.
- Learn the "multi-disciplinary team concept" of critical care.
- Conduct himself/herself respectfully, altruistically, and ethically.
- Practice patient- and family-centered care.
- Demonstrate sensitivity to family, cultural, ethnic, age, gender, and community issues during interactions with patients, families, and members of the healthcare team.
- Record and maintain appropriate documentation of daily care and procedures in the EMR.
- Record and maintain a Critical Care Log as per the RRC website.

## Interpersonal and Communication Skills

- Participate in the evaluation of patients requiring consultation.
- Present patients in a logical and concise manner.
- Effectively listen to patients and families.
- Communicate effectively with patients and families, avoiding technical terms and jargon.
- Learn to communicate "good" and "bad" news to patients and family.
- Learn to communicate and function effectively and appropriately with a critical care team.
- Dictate complete, accurate, and timely discharge summaries.
- Maintain orderly medical records and transfer notes.
- Practice effective and efficient sign-outs to on-call residents.

#### Systems-based Practice

 Recognize the roles and responsibilities of the surgeon in relation to those of physicians and surgeons in other disciplines and specialties, pathologists, nurses,





anesthesiologists, advance nurse practitioners, physician assistants, pharmacists, and administration.

• Evaluate surgical disease with attention to various diagnostic tests and modalities that are used to define the type and extent of the pathology, which will determine the need of surgical intervention.