



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 will be assessed in terms of clinical knowledge, interpersonal qualities, and operative skills through evaluations by faculty, peers, students and nursing staff.

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

Patient Care

- Accurately diagnoses many core surgical conditions and initiate appropriate management for some core surgical conditions according to the SCORE curriculum.
 - Abdominal compartment syndrome
 - Anaphylaxis
 - ARDS and respiratory failure
 - Modes of ventilation
 - Neuromonitoring
 - Brain death
 - Cardiac arrhythmias—common
 - Cardiac failure
 - Cardiogenic shock
 - Derangements of electrolytes and acid-base balance
 - Endocrine dysfunction
 - Hepatic failure and hepatorenal syndrome
 - Hypovolemic shock
 - Neurogenic shock
 - Neurologic dysfunction
 - Pneumonia—hospital-acquired
 - Postoperative delirium
 - Renal failure
 - Septic shock
 - Organ donors and selection criteria
 - Anesthesia: general, regional, local, conscious sedation, acute/chronic pain management
 - Body fluid compartments and fluid homeostasis
 - Hypocalcemia and hypercalcemia
 - Hypokalemia and hyperkalemia
 - Hyponatremia and hypernatremia

- Magnesium and phosphorous disorders
- Advanced directives, DNR orders, power of attorney
- Goals of care with patient and family
- Geriatric medications and dosing issues
- Palliative and hospice care
- Infections—avoiding risk to self/others, bacterial, diagnostic approach, fungal, healthcare-acquired, opportunistic, viral, coexisting
- Intraabdominal infection and abscess
- Antimicrobial prophylaxis
- Antimicrobial resistance
- SIRS/sepsis and pathophysiology
- Effect of surgery, illness, injury on nutrition
- Nutrition assessment, pharmacology, immunonutrition, requirements, long-term support
- Futility, withdraw and withholding of treatment
- Substitute decision-makers, competence, capacity
- Develop a diagnostic plan and implement initial care for patients who are critically ill.
- Recognize and manage common postoperative problems such as fever, hypotension, hypoxia, confusion, oliguria with assistance from more senior staff members who are available for consultation but not physically present.
- Demonstrate respect for tissue and skilled instrument handling.
- Be able to move through portions of common operations without coaching and make straightforward intraoperative decisions, performing some of the core operations in the SCORE curriculum with minimal assistance.
 - Airway management/ventilator management
 - Arterial catheter placement
 - Central venous catheter placement
 - Compartment pressures (abdomen, extremity) measurement
 - Damage control laparotomy and management of the open abdomen
 - Defibrillation and cardioversion
 - Endotracheal intubation
 - Enteral feeding tube placement
 - Invasive hemodynamic monitoring
 - Paracentesis
 - Pulmonary artery catheter placement
 - Thoracentesis
 - Ultrasound use for intravascular access
 - Cardiac pacing
 - Temporary transvenous pacemaker

Medical Knowledge

- Have basic knowledge about many of the core diseases in the SCORE curriculum and make a diagnosis and recommend appropriate initial management.
 - Abdominal compartment syndrome
 - Anaphylaxis
 - ARDS and respiratory failure
 - Modes of ventilation
 - Neuromonitoring
 - Brain death
 - Cardiac arrhythmias—common
 - Cardiac failure
 - Cardiogenic shock
 - Derangements of electrolytes and acid-base balance
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 - Antimicrobial prophylaxis

- Antimicrobial resistance
- SIRS/sepsis and pathophysiology
- Effect of surgery, illness, injury on nutrition
- Nutrition assessment, pharmacology, immunonutrition, requirements, long-term support
- Futility, withdraw and withholding of treatment
- Substitute decision-makers, competence, capacity
- Recognize variation in the presentation of common surgical conditions.
- Have basic knowledge of the operative steps, peri-operative care, and post-operative complications for many of the core operations in the SCORE curriculum.
 - Airway management/ventilator management
 - Arterial catheter placement
 - Central venous catheter placement
 - Compartment pressures (abdomen, extremity) measurement
 - Damage control laparotomy and management of the open abdomen
 - Defibrillation and cardioversion
 - Endotracheal intubation
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Practice-based Learning and Improvement

- Communicate educational material accurately and effectively at the appropriate level for learner understanding.
- Attend conferences including Morbidity and Mortality conference, Grand Rounds, critical care/service specific conferences and accurately and succinctly present patient cases in conferences.
- Independently reads the literature and uses sources to answer questions related to patients.
- Develop a learning plan based on feedback with some external assistance.
- Identify gaps in personal technical skills and work with a faculty member to develop a skills learning plan.
- Evaluate own surgical results and the quality and efficacy of care of patients through appraisal and assimilation of scientific evidence.

- Use relevant literature to support discussions and conclusions at M&M and/or other QI conferences.
- Perform basic steps in a QI project.
- Understand how to modify own practice to avoid errors.

Professionalism

- Maintain composure in accordance with ethical principles even in stressful situations.
- Exhibit compassion and empathy toward patients and their families.
- Recognize the limits of knowledge and ask for help when needed.
- Monitor own personal health and wellness and appropriately mitigates fatigue and/or stress.
- Effectively and efficiently manages own time and assures fitness for duty.
- Be prompt in attending conferences, meetings, operations, and other activities.
- Respond promptly to requests from faculty members and departmental staff members.

Interpersonal and Communication Skills

- Customize communication by taking into account patient characteristics.
- Provide timely updates to patients and their families during hospitalizations and clinic visits.
- Exhibit behaviors that invite information sharing with health care team members.
- Perform hand-off best practices.
- Effectively describe various aspects of the procedure and perioperative care to the patient and family and other operating room team members.
- Lead a preoperative “time out.”
- Perform clear informed consent discussion for basic procedures.

Systems-based Practice

- Know the necessary resources to provide optimal coordination of care and how to access them.
- Be aware of specialized services like home total parenteral nutrition or home antibiotic infusion.
- Understand how patient care is provided in the system and recognizes certain specific system failures that can affect patient care.
- Follow protocols and guidelines for patient care.