EMERGENCY LEARNING OBJECTIVES

General Objectives

Upon completion of the Emergency rotation, the General Surgery resident is expected to:

- Demonstrate knowledge, clinical and technical skills and decision-making capabilities pertinent to the management of various emergency conditions
- Develop a systemic approach to the assessment and treatment of the acutely ill/injured patient
- Develop appropriate triage skills

Specific Objectives

At the completion of the Emergency rotation, the General Surgery resident will have acquired the following competencies and will function effectively as:

Medical Expert

- Establish and maintain clinical knowledge, skills and attitudes appropriate to the Emergency rotation
  - Apply knowledge of the clinical, socio-behavioral and fundamental biomedical sciences relevant to the Emergency rotation

The resident in General Surgery is required to attain sufficient knowledge as follows:

Cardiovascular Emergencies

- Cardiac arrest
- Arrhythmias
- Pulmonary edema
- Myocardial infarction
- Hypertensive crisis
- Cardiogenic shock
- Vascular emergencies, including:
  - Ruptured abdominal aortic aneurysm
  - Acute arterial occlusion with ischemia
  - Vascular trauma
  - Acute venous problems
- Cardiac tamponade
- Myocardial injury/myocarditis

Respiratory Emergencies

- Airway problems/management
- Asthma/bronchospasm/status asthmaticus
- Pulmonary embolism
- Respiratory failure
- Pneumonia
- Pleural effusion
- Pneumothorax/hemothorax

Neurologic Emergencies

- Coma
- Seizure disorders
- Increased intracranial pressure and its manifestations

Gastrointestinal Emergencies

- Acute abdomen
- Gastrointestinal bleeding
- Acute enteritis/colitis
- Hepatobiliary emergencies, including:
  - Acute jaundice
  - Acute hepatitis
  - Cholangitis
  - Fulminant hepatic failure

Endocrine Emergencies

- Diabetic emergencies, including:
  - Hyperosmolar coma
  - Ketoacidosis
- Hypoglycemia
- Adrenal crisis
- Hypercalcemia/hypocalcemia

**Trauma/Thermal Injuries**
- Initial assessment/management of the trauma patient
- Acute wound care
- Hypothermia
- Hyperthermia syndromes
- Burns

**Allergies/Anaphylaxis**
- Initial assessment/management

**Sepsis/septic shock**
- Initial assessment/management

**Psychiatric Emergencies**
- Delirium
- Overdose
- Acute situational reaction
- Acute depression

**Pre-Hospital Care**
- Principles of triage
- Disaster planning
- Perform a complete and appropriate assessment of the patient with an emergency condition
  - Elicit a history that is relevant, concise and accurate
  - Perform a focused physical examination that is relevant and accurate
  - Select medically appropriate investigations in a resource-effective and ethical manner
  - Demonstrate effective clinical problem solving and judgment to address emergency problems, including interpreting available data and integrating information to generate differential diagnoses and management plans
- Use therapeutic interventions effectively
  - Implement an effective and prioritized management plan for the emergency patient
  - Demonstrate effective, appropriate and timely application of therapeutic interventions relevant to the Emergency rotation
  - Ensure appropriate informed consent is obtained for therapies
- Demonstrate proficient and appropriate use of procedural skills
  - Demonstrate effective, appropriate and timely performance of diagnostic procedures relevant to the Emergency rotation
  - Demonstrate effective, appropriate and timely performance of therapeutic procedures relevant to the Emergency rotation
  - Ensure appropriate informed consent is obtained for procedures
  - Compile and maintain an accurate and complete electronic data base of all procedures performed during the Emergency rotation

Having completed the Emergency rotation, the General Surgery resident will be able to demonstrate knowledge and technical competence in performing the following procedures:
- Arterial puncture
- Venipuncture
- Venous cutdown
- Central venous catheter insertion
- Endotrachial intubation
- Urinary catheter insertion
- Nasogastric/orogastric tube insertion
- Suture of laceration/initial wound care techniques
- Paracentesis/peritoneal lavage
- Lumbar puncture
- Fracture stabilization techniques
- Thoracentesis
- Chest tube insertion
- FAST (optional)

- Seek appropriate consultation from other health professionals
  - Demonstrate insight into his/her own limitations by self-assessment
  - Demonstrate effective, appropriate and timely consultation of another health professional as needed for optimal care of the emergency patient

**Communicator**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Develop rapport, trust and ethical therapeutic relationships with patients and families
Establish positive therapeutic relationships with patients and their families that are characterized by understanding, trust, respect, honesty and empathy
- Respect patient confidentiality, privacy and autonomy
- Listen effectively
- Accurately elicit and synthesize relevant information and perspectives of patients and families, colleagues and other professionals
  - Seek out and synthesize relevant information from other sources such as the family, caregivers and other professionals
- Accurately convey relevant information and explanations to patients and families, colleagues and other professionals
  - Deliver information to the patient and family, colleagues and other professionals in a humane and understandable manner
- Convey effective oral and written information
  - Maintain clear, accurate, appropriate and timely records of clinical encounters and procedures involving the emergency patients
  - Maintain an accurate, complete and up-to-date electronic database (log) of procedures performed during the Emergency rotation
  - Effectively present verbal reports of clinical encounters and medical information during the Emergency rotation

**Collaborator**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Participate effectively and appropriately in an interprofessional healthcare team
  - Recognize and respect the diversity of roles, responsibilities and competences of other professionals in the management of the emergency patient
  - Work with others to assess, plan, provide and integrate care of the emergency patient

**Manager**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Manage his/her professional and personal activities effectively
  - Set priorities and manage time to balance professional responsibilities, outside activities and personal life
  - Employ information technology effectively (e.g. electronic surgical procedure database)
- Demonstrate an understanding of cost-effectiveness in patient management
  - Utilize hospital resources wisely when managing emergency patients
- Serve in leadership roles, as appropriate
  - Participate effectively at teaching rounds and other meetings

**Health Advocate**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Respond to the needs of the emergency patient
  - Identify the health needs of an individual patient

**Scholar**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Maintain and enhance professional activities through ongoing learning
  - Pose an appropriate learning question
  - Access and interpret the relevant evidence
  - Integrate new learning into development as a general surgeon
- Critically evaluate medical information and its sources and apply this appropriately to clinical decisions
  - Critically appraise the emergency/acute care evidence in order to address a clinical question
  - Integrate critical appraisal conclusions into clinical care

**Professional**

At the completion of the Emergency rotation, the General Surgery resident will be able to:
- Demonstrate a commitment to patients through ethical practice
  - Exhibit appropriate professional behaviors, including honesty, integrity, commitment, compassion, respect and altruism
  - Recognize and appropriately respond to ethical issues
- Appropriately manage conflicts of interest
- Recognize the principles and limits of patient confidentiality
- Maintain appropriate relations with patients