

Vanderbilt University Medical Center
Emergency General Surgery Service
Surgical Residency Rotation and Curriculum

UNIT 10 EMERGENCY MEDICINE

UNIT OBJECTIVES:

1. Manage a variety of surgical conditions in an emergency setting.
2. Demonstrate knowledge of physician-to-physician communication in an emergency situation.
3. Demonstrate the ability to evaluate and effectively manage all acute or life-threatening conditions in an emergency setting.

COMPETENCY-BASED KNOWLEDGE OBJECTIVES:

Junior Level:

1. Complete the coursework and testing to obtain Basic and Advanced Cardiac Life Support (BLS and ACLS).
2. Outline the basic principles of triage in the emergency department, including:
 - a. Immediate treatment
 - b. Ambulatory treatment
 - c. Delayed treatment
 - d. Expectant treatment
 - e. Psychiatric considerations
3. Explain priorities for the diagnosis and/or assessment of illness/injury for patients presenting to the emergency department, keeping the following issues in mind:
 - a. Discuss requests for diagnostic studies comparing the urgency of the need to know with:
 - (1) The time required to obtain results
 - (2) Potential danger to unstable patient
 - (3) Quality of information obtained if a stat procedure compromises preparation of the patient
 - b. Compare the need for provision of expedient, cost effective work-ups against the appropriateness of using the emergency setting for extensive work-ups at the risk of over utilizing limited resources.
4. Explain the ACLS protocol for the emergency resuscitation and stabilization of a seriously-ill or injured patient:
 - a. Cite working knowledge of the ABC's of resuscitation
 - b. Define the essentials of AMPLE history (Allergy, Medications, Past illnesses, Last meal, Events of illness/injury)
5. Describe the considerations for establishing an airway appropriate to the patient's condition, including:
 - a. Nasal trumpets/nasopharyngeal airway
 - b. Bag-mask assistance
 - c. Endotracheal tube
 - d. Surgically Created Airways (cricothyrotomy-needle or tube)

Vanderbilt University Medical Center
Emergency General Surgery Service
Surgical Residency Rotation and Curriculum

6. Describe the typical case scenarios for the following life-threatening problems requiring appropriate urgent/emergent action:
 - a. Shock (cardiogenic, neurogenic, septic, and hypovolemic)
 - b. Myocardial infarction
 - (1) Complicated (with congestive heart failure [CHF], hypotension, dysrhythmia)
 - (2) Uncomplicated
 - c. Pulmonary embolus
 - d. Diabetic ketoacidosis and other metabolic derangements
 - (1) Hyper- and hypo- kalemia
 - (2) Hyper- and hypo- natremia
 - (3) Hyper- and hypo- calcemia
 - e. Gastrointestinal bleeding
 - f. Pancreatitis
7. Describe the principles of evaluation and management for the following less-serious problems:
 - a. Pneumonia
 - b. Acute abdominal pain
8. Discuss the principles of evaluation and management for the following common minor problems:
 - a. Appropriate dressings
 - b. Soft tissue infections
 - c. Gastroenteritis
 - d. Follow-up instructions
9. Explain the indications and appropriate methods for:
 - a. Central line insertion
10. Analyze the medicolegal responsibilities of the physician in the field as an accepting physician coordinating transport.
11. Define the requirements for informed consent in the emergency setting:
 - a. Life threatening conditions
 - b. Minor surgery
 - c. Patients who are minors
 - d. Patients unable to provide informed consent (non compis mentis)
 - (1) Amnesia for event
 - (2) Drug or alcohol use
 - (3) Dementia

Senior Level:

1. Outline the essential elements of a team approach to the management of life threatening illness. Review responsibilities of the team leader.
2. Analyze the decision process in evaluating the need for emergency operative intervention in disease.

Vanderbilt University Medical Center
Emergency General Surgery Service
Surgical Residency Rotation and Curriculum

COMPETENCY-BASED PERFORMANCE OBJECTIVES:

Junior Level:

Under the guidance and supervision of more senior residents, attending surgeons, or emergency department attendings:

1. Assess patients presenting emergency conditions using the appropriate diagnostic protocol.
2. Prioritize requests for diagnostic studies based on need to know and the time required to obtain results.
3. Establish the following airways:
 - a. Perform bag-mask ventilation
 - b. Insert nasopharyngeal or oropharyngeal airways
 - c. Perform endotracheal intubation (oro- and naso- pharyngeal)
 - d. Perform a cricothyrotomy
4. Establish access to the central venous system.
5. Assist with acute resuscitation procedures as indicated.
6. Discuss patient's condition and future care with family.
7. Provide appropriate treatment for non-emergency problems presenting to the emergency department.

Under the guidance and supervision of senior residents, attending surgeons, or emergency department attendings:

1. Function as a surgical consultant, assessing and developing differential diagnoses and discussing recommendations with senior resident or attending.
2. Ascertain the severity of disease and identify patients requiring operative intervention.
3. Perform emergency diagnostic and therapeutic procedures such as:
 - a. Central line insertion
 - b. Insertion of chest tubes
4. Perform minor surgical procedures such as:
 - a. Drainage of abscesses
 - c. Wound debridement
 - b. Wound closure
 - d. Bladder catheterization
5. Explain patient's condition and proposed therapy to his/her family and obtain appropriate informed consent.
6. Discuss management options with the patient and his/her family.
7. Recommend further diagnostic and/or radiographic studies to clarify diagnosis and focus patient management.
8. Communicate the importance of injury prevention to patients, patient families, and staff.

Senior Level:

Under the guidance and supervision of more senior residents, attending surgeons, or emergency department attendings:

1. Demonstrate the ability to perform as senior team leader in coordinating the

Vanderbilt University Medical Center
Emergency General Surgery Service
Surgical Residency Rotation and Curriculum

patient's care, delegating duties to junior team members, and conferring with subspecialty consultants as needed.

2. Manage emergency services for an elderly patient, maximizing communication channels regarding:

- a. History
- b. Baseline cognitive and functional status
- c. Presence of advance directives
- d. Extent of work-up required