

Emergency Medicine Curriculum

Goal

Emergency medicine involves the evaluation and care of acute illness and injuries that require intervention within a limited time span. It is defined by a time interval rather than by a particular organ. Some conditions may be encountered in office practice, others in acute care settings. Regardless of the setting, the general internist should be able to manage common emergency conditions and provide consultation and management for a variety of acute serious illnesses.

The range of competencies expected of a general internist will depend on the availability of emergency physicians and other specialists in the community.

Rotation in the emergency department will provide training for the resident to (1) gather essential information from medical records, patient and care-giver interviews and physical examination, (2) distinguish minor illnesses from more severe illnesses, (3) effectively recognize, resuscitate, and stabilize the acutely ill patient, (4) develop a cost-effective approach to diagnose and treat diseases commonly encountered in an acute care setting, incorporating clinical judgment, best evidence-based practice, and patient preference; (4) become competent in procedures used commonly in the diagnosis and treatment of acute medical problems, and (5) become familiar with typical emergency care related to gynecology, orthopedics and surgery.

Objectives

Patient Care

- I. Provide patient care that is compassionate, appropriate and effective for the treatment of acute disorders.

Medical Knowledge

- I. Develop the knowledge and skills to obtain a rapid, focused history on patients with acute complaints.
- II. Develop the knowledge and skills for performing a focused physical exam.
- III. Develop an approach to patients with complaints commonly seen in the emergency department including:
 - a. abdominal pain
 - b. acute loss of vision and red eyes
 - c. altered mental status, obtundation or coma
 - d. back pain
 - e. biliary colic
 - f. cardiopulmonary arrest
 - g. chest pain
 - h. dehydration
 - i. diarrhea

- j. drug overdose, withdrawal, or poisoning
- k. dyspnea or wheezing
- l. epistaxis
- m. gastrointestinal bleeding
- n. headache
- o. hemoptysis
- p. high blood pressure
- q. hip fracture
- r. hyper/hypoglycemia
- s. leg swelling
- t. musculoskeletal trauma
- u. palpitations
- v. psychosis
- w. renal colic
- x. seizures and status epilepticus
- y. shock
- z. syncope
- aa. vaginal bleeding
- bb. vertigo
- cc. vomiting

IV. Recognize symptoms and signs, differential diagnosis and management of the following disease processes:

- a. acid-base disorders
- b. acute abdomen
- c. acute coronary syndrome and myocardial infarction
- d. acute hepatitis
- e. acute pancreatitis
- f. acute renal failure
- g. acute respiratory failure
- h. adrenal insufficiency
- i. asthma
- j. aortic dissection
- k. bowel obstruction
- l. cardiac dysrhythmias
- m. cellulites
- n. complications of liver failure – ascites, encephalopathy, bleeding
- o. congestive heart failure
- p. COPD
- q. deep venous thrombosis and pulmonary embolus
- r. diabetic ketoacidosis and hyperosmolar nonketotic syndrome
- s. domestic violence
- t. herpes simplex and zoster infection
- u. HIV infection and exposure
- v. hypertensive urgency and emergency
- w. meningitis

- x. migraine
 - y. nephrolithiasis
 - z. otitis externa and media
 - aa. pericarditis
 - bb. pharyngitis
 - cc. pneumonia and bronchitis
 - dd. pneumothorax
 - ee. prostatitis, urethritis, epididymitis
 - ff. sinusitis
 - gg. stroke – ischemic or hemorrhagic
 - hh. thyroid storm and myxedema coma
 - ii. tuberculosis
 - jj. urinary tract infections and pyelonephritis
- V. Understand appropriate use and interpretation of diagnostic studies, including:
- a. complete blood count
 - b. chemistries
 - c. arterial blood gas
 - d. urinalysis
 - e. pregnancy test
 - f. toxicology studies
 - g. chest radiograph
 - h. electrocardiogram
 - i. ultrasound of the abdomen and pelvis
 - j. CT of head, chest and abdomen
 - k. echocardiography
 - l. ventilation/perfusion scan of lungs and pulmonary angiography
 - m. aortography
- VI. Develop competence in the following procedures:
- a. abscess I & D
 - b. advanced cardiac life support
 - c. anesthesia – local
 - d. arterial puncture
 - e. arthrocentesis
 - f. central line placement
 - g. fluorescent staining of cornea
 - h. laceration repair
 - i. lumbar puncture
 - j. naso/endotracheal intubation
 - k. nasal packing
 - l. nail removal
 - m. paracentesis
 - n. placement of nasogastric tube and foley catheter
 - o. slit lamp exam

- p. splinting
- q. thoracentesis

Practice-Based Learning and Improvement

- I. Rapidly access clinical practice guidelines and information on best evidence-based practice for specific patient problems.
- II. Review patient care errors with attention to changes in systems to prevent recurrence.
- III. When possible, follow up on patients seen in the emergency department to retrospectively evaluate the appropriateness of the initial evaluation.
- IV. Utilize information technology to enhance patient education.

Interpersonal and Communication Skills

- I. Communicate effectively with patients and families in a compassionate, culturally sensitive and patient-centered manner to improve understanding and compliance.
- II. Develop specific skills for dealing effectively with specific patient populations, including the elderly, developmentally disabled, illiterate, prisoners, patients lacking insight, patients acting against medical advice, violent, frustrated and/or angry patients or families; narcotic-seeking patients, and intoxicated patients.
- III. Accurately describe the risks and benefits of proposed diagnostic and therapeutic procedures for informed consent.
- IV. Communicate effectively with primary care physicians referring patients to the emergency department, subspecialists helping to evaluate/stabilize patients, and colleagues taking over care of patients in the emergency department.
- V. Ensure patient discharges from the emergency department include patient education regarding diagnosis, treatment and reasons for return; and follow-up appointment or referral as appropriate to ensure continuity of care.
- VI. Ensure charting is legible, thoughtful, complete and timely to facilitate communication within the health care team.

Professionalism

- I. Act as a team leader in directing patient care provided by nurses, technicians, social workers, counselors and students.
- II. Understand impact of gender, age, culture, religion, and socioeconomic status on patient choices regarding therapies.
- III. Respect patient confidentiality.
- IV. Understand how to inform patients regarding the natural history of their disease and therapeutic interventions and to obtain consent to implement a treatment plan.
- V. Provide meaningful feedback to colleagues and students regarding performance and behavior.

Systems-Based Practice

- I. Triage and admit patients in a timely fashion.

- II. Apply evidence-based, cost-conscious strategies to diagnosis and treatment in the emergency department.
- III. Understand insurance coverage and optimize use of available resources to benefit the patient.
- IV. Develop skills in identifying opportunities for quality improvement, risk management and cost-effectiveness.

Teaching Methods

- I. Attending supervision of resident activities in patient care
- II. Conferences
- III. Recommended reading

Resident Evaluation

- I. Attending feedback to residents on strengths and weaknesses on a case-by-case basis
- II. Attending written evaluation of residents at the end of the rotation
- III. Mini-CEX bedside evaluation tool
- IV. Review of charts of patients discharged home from the emergency room for proper management and documentation.

Resources

Tintinalli's Emergency Medicine

Rosen and Barkin's Emergency Medicine

ER Course Syllabus

On-line Resources

- UptoDate
- MDConsult
- Poison Control

Residents should review ACP journal club for pertinent articles.