

Emergency Medicine Elective

MISSION AND INTRODUCTION

The emergency medicine rotation provides a learning experience aimed at teaching medical students the necessary skills to take care of patients with a wide variety of undifferentiated urgent and emergent conditions. Our mission is to enable students to develop and demonstrate the core competencies in knowledge, skills and behaviors of an effective emergency department clinician.

GUIDELINES

The emergency medicine curriculum objectives specify student skills and behaviors that are central to care of an emergency department (ED) patient and are appropriately evaluated in the context of the outcome objective for the medical program.

The Emergency Medicine objectives can be taught and evaluated in the following various settings to include clinical bedside teaching, observed structured clinical evaluation, lectures, problem-based learning groups, self-directed learning materials, and simulations.

Structure

- Length: four to six weeks
- Site: Emergency Department
- The Clerkship Director will provide an orientation at the start of the clerkship. This should include a discussion of the expectations and responsibilities of the clerk, the general department, the student schedule and assignments to residency teams and preceptors. .
- Before the start of the clerkship students are required to access the corresponding online Emergency Medicine course in Sakai. This course includes an introduction by the SGU Chair of Emergency Medicine, the curriculum and web-based assignments.
- Exposure to undifferentiated patient complaints across all age groups: pediatric, adult and elderly
- Teaching rounds for house staff and students should be done at least once daily.
- A full schedule of teaching conferences including grand rounds, residency conferences, and scheduled didactic sessions specific to the needs of the students.
- The clinical faculty must provide direct supervision of the students for physical examination, case presentations and clinical procedures.
- All clinical write-ups or formal presentations must include a focused history and physical, problem list with its assessment, and a diagnostic and therapeutic plan.
- The clinical faculty will evaluate oral presentation skills (including transitions of care) and provide an objective assessment of competency in communication.

Educational Objectives

A. Medical Knowledge - Students will demonstrate medical knowledge sufficient to:

- Identify the acutely ill patient
- Suggest the appropriate interpretation of tests and imaging data
- Develop a differential diagnosis which includes possible life or limb threatening conditions along with the most probable diagnoses
- Describe an initial approach to patients with the following ED presentation: chest pain, shortness of breath, abdominal pain, fever, trauma, shock, altered mental status, GI bleeding, headache, seizure, overdose (basic toxicology), burns, gynecologic emergencies, and orthopedic emergencies
- Actively use practice-based data to improve patient care

B. Clinical Skills - Students will demonstrate the ability to:

- Perform assessment of the undifferentiated patient

- Gather a history and perform a physical examination (EPA 1)
- Recognize a patient requiring urgent or emergent care and initiate evaluation and management (EPA 10)
- Prioritize a differential diagnosis following a clinical encounter (EPA 2)
- Recommend and interpret common diagnostic and screening tests (EPA 3)
- Perform general procedures of a physician (EPA 12)
 - Correctly perform the following procedural techniques: CPR, intravenous line & phlebotomy, ECG, Foley catheter, splint sprain/fracture, suture laceration. Enter procedures in the Patient encounter log (under procedures)
- Provide an oral presentation of a clinical encounter (EPA 6)
- Develop skills in disposition and follow-up of patients
- Demonstrate accessibility to patients, families, and colleagues
- Communicate effectively and sensitively with patients, families, and with health care teams in verbal and written presentations.
- Acquire skills in breaking bad news and end of life care
- Develop skills in giving and receiving safe patient hand-offs and transition of care (EPA 8)
- Form clinical questions and use information technology to advance patient care (EPA 7)
- Critically appraise medical literature and apply it to patient care

C. Professional Behavior - Students will be expected to:

- Demonstrate dependability and responsibility
- Demonstrate compassion, empathy and respect toward patients and families, including respect for the patient's modesty, privacy, confidentiality and cultural beliefs.
- Demonstrate an evidence-based approach to patient care based on current practice-based data.
- Demonstrate professional and ethical behavior
- Collaborate as a member of an inter-professional team (EPA 9)
- Evaluate own performance through reflective learning
- Incorporate feedback into improvement activities
- Be aware of their own limitations and seek supervision and/or consultation when appropriate.

CORE TOPICS

The educational core identifies the basic set of clinical presentations, procedures, and educational topics that would be covered or experienced during the clerkship. There may be some variability in how this educational core is taught (reflecting the resources of each clinical site). However, the principle teaching materials will be consistent across all training sites. The various educational venues used to teach these topics and procedures should ideally be complementary and may include lectures, bedside teaching, self-study materials, medical student-generated presentations, simulated encounters, direct observation, and laboratory workshops. The Department of Emergency Medicine will provide 12 "Essential Topic" PowerPoint Presentations to serve as the foundation for a didactic lecture series. Again, these lectures are not meant to be the only didactic presentations a student will encounter or negate the importance of other educational presentations.

1. Clinical experience.

Clinical experience in the ED is the foundation of all emergency medicine clerkships. The major portion of the clerkship should involve medical students participating in the care of patients in the ED under qualified supervision. The clinical experience should provide the student with the opportunity to evaluate patients across all areas of the age and gender spectrum. Because of multiple factors, including the unpredictable nature of emergency medicine, clinical experience may be quite variable, even within a clerkship rotation. Certain presentations of ED patients that are common. All medical students should have exposure to the following during their clinical rotations based on a national curriculum.

1. Abdominal/pelvic pain
2. Altered mental status/loss of consciousness

3. Back pain
4. CVA/stroke
5. Chest pain
6. Fever/SIRS/Sepsis
7. Gastrointestinal bleeding
8. Geriatric Emergencies
9. Headache
10. Respiratory Distress
11. Shock/Resuscitation
12. Ob/Gyn Emergencies
13. Trauma/musculoskeletal/limb injuries
14. Wound care

This list is not meant to identify the only types of patients a student will encounter or negate the importance of many other patient presentations.

2. **Procedures.**

Certain procedures to be taught under appropriate supervision during the emergency medicine rotation are listed below. Procedures were selected based on clinical relevance, level of student training and availability within the ED.

1. Arterial blood gas and interpret pulse oximeter
2. ECG
3. Foley catheter placement
4. Interpretation of cardiac monitoring/rhythm strip
5. Nasogastric tube placement
6. Peripheral intravenous access
7. Splint application
8. Wound Care: laceration repair (simple), incision and drainage (abscess)
9. Venipuncture

The procedures listed here are derived from previous curricula, consensus opinion, and an informal evaluation of procedures currently performed on rotations. In recognition of the variation of what procedures might be available on clinical shifts, the use of labs, mannequins, direct observation, videotape presentations, and simulators is encouraged.

D. WEB BASED EDUCATIONAL ASSIGNMENTS FOR INDEPENDENT LEARNING

- **Communication Modules**
- **Ethics Modules**
- **Clerkship Directors in Emergency Medicine Course**

Clinical experience cannot provide a student with every aspect of the curriculum, nor can one guarantee what clinical presentations a student will encounter. Therefore, a core knowledge base relevant to emergency medicine topics must also be taught. The list of essential topics is based on previously published curricula, the model curriculum for emergency medicine residencies and consensus opinion. In order to maintain consistency in learning objectives, the Department of Emergency Medicine has developed a minimum standard with respect to student self-study. The web based curriculum uses on-line reading assignments, simulated patient encounters and assessments of medical knowledge in a self-directed learning environment. Students are required to complete each of the lesson modules of **Clerkship Directors in Emergency Medicine Course** in Sakai.

ModuleTopic		Content sections:
1	Introduction	Orientation Presentation
		The Approach To The Undifferentiated Patient

ModuleTopic		Content sections:
2	Cardiac Arrest	Assigned Reading Examination
3	Chest Pain	Assigned Reading Simulated Patient Encounter Examination
4	Pulmonary Emergencies and Respiratory Distress	Assigned Reading Simulated Patient Encounter Examination
5	Abdominal & GU Emergencies	Assigned Reading Simulated Patient Encounter Examination
6	Neurologic Emergencies	Assigned Reading Simulated Patient Encounter Examination
7	Critical Care	Assigned Reading Simulated Patient Encounter Examination
8	Poisoning and Environmental Emergencies	Assigned Reading Simulated Patient Encounter Examination
9	Trauma	Assigned Reading Simulated Patient Encounter Examination
10	Emergency Care of the Elderly	Assigned Reading Simulated Patient Encounter Examination

3. Testing and Evaluation

Each Lesson Module has a multiple choice test to evaluate your interpretation of the materials in the reading assignment and simulated patient encounters. A score of 100% is required to pass the module. The ethics and communication skills module is evaluated independently. Please be sure to take the Module quiz in the Sakai Communication Skills Course (completion of these modules is also required).