University of Massachusetts Medical Center  
Emergency Medicine Rotation (Adult)  

**EDUCATIONAL OBJECTIVES:**

1) To understand the management of all patients presenting to the Emergency Department  
2) To learn technical skills to care for all emergent and urgent conditions presenting to the Emergency Department  
3) To become familiar with the natural history and Pathophysiology of common disease entities and to recognize uncommon diseases that may present to the emergency department  
4) To become familiar with prehospital care and medical control  
5) To become familiar with the management of human and material resources within and available to the emergency department  
6) To develop physician interpersonal skills necessary to effectively interact with patients, families, consultants, and other members of the health care team.

**METHODS:**

**Clinical experience:** These objectives will be achieved through rotations in the Adult Emergency Department at University of Massachusetts Medical Center. The EM1 residents will have four 1-month rotations, the EM2 resident will have three 1-month rotations, and the EM3 have two 1-month rotations in the department.  

Residents function as the primary physician for patients presenting to the Emergency Department. In conjunction with the attending physician, residents evaluate, diagnose, treat, and direct disposition of patients in the Emergency Department Setting. Residents are given greater autonomy based on demonstrated skill and level of training.

Residents are educated to develop a differential diagnosis based on the history and physical findings and to utilize cost effective methods to diagnose and treat their patients. The residents are instructed on working with patients’ primary care physician to arrange appropriate follow-up for Emergency Department patients. Further facilitating the importance of follow-up is a system whereby each resident contacts several patients each month following admission or discharge to understand the progression of that patient’s disease process. Senior residents are also expected to perform in a supervisory role and learn the management of a busy department under the direct guidance of the attending physician.

**Available Resources:** The University of Massachusetts Medical Center has an extensive physical and on-line library available for the emergency medicine resident with subscriptions to over 3000 traditional and on-line medical journals and 290,000 bound volumes. In addition to access to the Medline references, electronic journals, and electronic textbooks, the resident has real-time access to other information sources such as Up To Date, and MDConsult from within the Emergency Department and off campus. Numerous standard emergency medicine references are provided within the emergency department as well.

Medical records are maintained both electronically with via traditional paper charts. Dictated summaries, clinic notes, consults, labwork, and radiologic examinations are available at any time via the computer network. Traditional hand-written clinic and hospitalization notes are available at any time if requested is with receipt of the charts usually within 1 hour.
All emergency medicine residents receive a personal data assistant (PDA). This device is used to track procedures, and may be used as a further reference tool if the resident desires to acquire such software.

**Didactic experience:** Our didactic curriculum is extensive. Conferences, laboratory, small group, and other structured learning experiences are designed to meet the educational needs of the residents. These include a Board Review Series, the Emergency Medicine Lecture Series, Morbidity and Mortality Conferences, Grand Rounds, Flight Physician Courses, Pediatric Emergency Medicine Series, Cadaver Skills Lab, Journal Club, and other series. The overall goal of the didactic curriculum is to train residents to become highly competent emergency medicine physicians. Our didactic curriculum serves to outline the material at risk for testing on the American Board of Emergency Medicine examinations, and to lend guidance to those learning the specialty of emergency medicine.

Each month a topic is assigned for review associated with reading selections from a core Emergency Medicine textbook. Related self-assessment tests are provided on-line via the Council of Residency Directors website (www.emtests.com).

**Specialized Didactic Training**

**A. Special Emergency Situations**
Special training in which the residents participate prior to completion of their training are courses and certification in Advanced Cardiac Life Support, Advanced Trauma Life Support, Advanced Pediatric Life Support, and Pediatric Advanced Life support. Additionally, opportunity for Neonatal Resuscitation Provider and Neonatal Advanced Life Support training is provided as is instructor level training in all of the above courses.

**B. Base Station Course**
This course, taught by our faculty, is provided exclusively to the EM1 resident in preparation for their increasing responsibility in the EM2 year. Immediate evaluation and feedback is available during the three-hour practical course, which includes issues of scope of practice, medicolegal, right of refusal, and the intoxicated patient.

**C. Critical Care – Flight Physician Training**
In addition to the five months of inpatient critical care experience provided by the residency, special training in critical care is enhanced by experiences as a flight physician on UMass LifeFlight.

Each resident learns the attitude, knowledge, and skills necessary to deliver the highest available care in a prehospital and air medical environment. Training is in three phases: The flight physician course, observational experiences, and ongoing flight experiences.

The flight physician course is a yearly conference provided by our EMS faculty and augmented by presentations from our flight nurses and pilots. This course reviews medical and environmental issues unique to the air-medical transport situation. Additionally, air medical operations safety and basic survival skills are presented. The safety component of this conference must be reviewed every 6 months in order to maintain active flight status.

The second phase of training occurs during the EM1 rotation while on anesthesia. Three times per week, after completion of clinical duties, the EM1 is made available to fly as an assistant flight physician with an EM2 or EM3 flight resident.
The third phase is the resident’s integration and implementation of the total didactic and experiential training for active air medical patient care. Decisive though, aggressive resuscitation skills, and a priority for quality patient care are assimilated with clinical protocols to bring the resident to the clinical maturity expected from senior flight physicians.

Throughout the air medical experience, evaluation and feedback is provided in the way of weekly quality assurance and chart review by the EMS faculty and fellows.

D. Physician Interpersonal Skills

In addition to daily attending/resident interactions on all rotations, special training in interpersonal skills is provided during the semiannual director’s meeting and with the resident’s faculty advisor. Frequently, attending physicians in the department provide direction as either an exemplary role model or through direct instruction in difficult times with a patient or patient’s family.

Evaluation and feedback is conducted through a standard form earned from all rotations, as well as informal meetings and group interactions. Additionally – direct observation of the physician-patient interaction is provided on an intermittent basis via the CORD Standardized Direct Observational Assessment Tool.

E. Principles of Research

Residents begin their understanding of research initially through peer and faculty interactions at the monthly journal club in which pertinent, frequently controversial topics in emergency medicine are explored for their technical integrity as well as their merit to current clinical practice. EM1 residents present the overview of the research article and faculty members provide the fundamentals of research, statistical concepts, and logistics through critical analysis of these published articles.

Research instruction also takes place with faculty/resident interactions during specific research projects. These interactions range from impromptu meetings which are held as needed in order to facilitate a particular study, active problem solving during bench top, animal lab, or clinical data collection and preparation for national and international presentation of the research data.

**Duty Hours Requirements:** The resident is required to monitor his/her own weekly hours, to ensure that 80 hours per week averaged over a four week period is not exceeded. Additionally, it is necessary to ensure one day in seven is free from all clinical and educational responsibilities. There must at least an equivalent period of continuous time off between scheduled work periods. Residents may attend educational activities between work periods, but at some point in the 24 hour period must have an equivalent period of continuous time off between the end of one activity (work or educational) and the start of another activity (work or educational). It is the responsibility of the resident to notify the Emergency Medicine Program Director if any of these rules are violated. Periodically, the University of Massachusetts Office of Graduate Medical Education requires and monitors duty hour entry into the E-Value residency management software.

**Evaluations:** Under the direct and indirect supervision of the attending physician, residents demonstrate their ability to perform histories, physicals, develop differential diagnoses, use cost
effective methods to reach a diagnosis, develop admission and discharge plans, and to perform procedures.

Written web-based evaluations of residents are received from the rotation after the completion of each month. These are based on a group discussion of the individual resident during a monthly faculty meeting. Urgent educational issues are dealt with immediately.

Attendance is taken at each conference, and records are kept of the number of conferences attended by each emergency medicine resident. The number of procedures performed is recorded by each resident on a provided PDA. The results of follow-up are recorded on pre-printed forms and submitted to the residency coordinator. All of these statistics are available to the resident and to the Residency Director. They are discussed at the semiannual review. There are attending physicians present at each conference and will provide direct feedback to the emergency medicine residents giving and attending the conference. Each Morbidity and Mortality Conference is evaluated by the Residency Director/Associate Residency Director in regard to core content, relevance of material, and use of supplemental teaching material. Additionally, written feedback is provided by members of the listening audience. A copy of the feedback is provided to the resident and to the Program Director.

Additionally, a standardized web-based test (www.emtests.com) is assigned monthly and graded. These tests are reviewed during weekly conference. The results of the test are available to the program director to assess the need for individual counseling and/or remediation.

**Feedback:** Structured feedback occurs during the semiannual review. Resident feedback is also provided during faculty advisor/advisee meetings. Informal feedback is provided on an ongoing basis in the emergency department.

**CORE COMPETENCIES**

**Patient Care Core Competency Objective**

1. To develop caring and respectful behaviors through patient and family interactions and observations of more senior residents and attending staff in the care of patients in the emergency department.
2. To develop interviewing skills that will facilitate patient interaction, leading to development of the medical history necessary for individualized, accurate, and respectful patient care.
3. To develop skills at informed decision-making by recognizing patient understanding and preference, evidence based practice, and clinical judgment.
4. To develop and carry out patient management plans under the supervision of more senior residents and attending staff.
5. To develop skills at counseling and education patients and their families of their medical condition and therapeutic options.
6. To develop skills at the use of information technology in order to promote patient care and education. Examples of this include the use of Meditech for retrieving laboratory and transcription data. The use of the internet to facilitate patient information.
7. To develop competency and proficiency in the performance in the procedures required of emergency physicians as well as the performance of physical exam appropriate for the patient’s complaint.
8. To develop knowledge of preventive health aspects of patient care that may be incorporated into the practice of emergency medicine. Examples include smoking cessation, influenza vaccinations, alcohol abstinence, STD prevention, etc…
9. To develop awareness and facilitate the provision of quality and appropriate health care within a team of health care providers and consultants.

**Medical Knowledge Core Competency Objective**
1. To develop an approach to clinical situations using investigatory and analytical thinking.
2. To develop an understanding of the application of social and epidemiologic studies to current patient care.
3. To develop skill at applying current medical knowledge to provide up-to-date medical care.
4. To develop skill at interpreting new medical and social research and understanding its applicability to current practice.
5. To demonstrate knowledge of the natural history and pathophysiology of common emergency department disease entities and to apply that knowledge to appropriate patient management.
6. To demonstrate skill at recognizing and identifying uncommon disease processes in the emergency department and appropriately develop resources to provide patient care.
7. To demonstrate understanding of the treatment strategy for emergent and urgent patient complaints.

**Practice-Based Learning and Improvement Core Competency Objective**
1. To develop a personal program of learning related to the requirements of the emergency medicine residency.
2. To develop methods of analyzing the resident’s own practice to improve quality of health care provided.
3. To develop skills in the location, appraisal and use of evidence from scientific studies to alter the resident’s practice of medicine, with the goal of improving health care provided.
4. To develop skills in the use of information technology in providing patient care and furthering the resident’s education. In particular Medline reference searching, national guidelines clearinghouses, and current on-line textbooks.
5. To develop skill in obtaining and applying appropriate epidemiologic information regarding the resident’s patient population.
6. To develop skills in educating and directing junior members of the health care team while providing patient care.

**Interpersonal and Communication Skills Core Competency Objectives**
1. To develop an ethical physician-patient relationship model that creates a therapeutic relationship with patients and family.
2. To develop listening and interactive skills that will facilitate communication with patients, families, and other members of the health care team.
3. To develop skills at working within or leading a health care team with the goal of providing excellent patient care.

**Professionalism Core Competency Objectives**
1. To develop respectful, compassionate, and altruistic attitudes towards patients, their families, the community, and other members of the health care team.
2. To incorporate ethics into the practice of medicine.
3. To develop a commitment to excellence and on-going education and personal development.
4. To develop sensitivity to cultural, age, gender, and disability issues that may impede patient care through disruption of the patient-physician interaction.
**Systems-Based Practice Core Competency Objectives**

1. To develop an understanding of the interaction of the practice of emergency medicine within that of the health care system the community as a whole.
2. To develop knowledge of the practice and delivery of health care in different systems and environments.
3. To develop cost-effective strategies in the practice of emergency medicine that does not compromise the quality of patient care.
4. To develop an attitude of being an advocate for the patient within the health care system.
5. To develop a willingness to be involved in a partnership to improve health care and system performance within the emergency department and in the hospital health care system.