

EMERGENCY MEDICINE CURRICULUM

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I. Educational Purpose and Goals

The purpose of the Emergency Medicine rotation is to expose the internal medicine resident to patients with critical and urgent medical problems commonly seen in the Emergency Department setting with the supervision of the full-time emergency medicine faculty. Residents will learn how to diagnose, manage, and/or triage patients with unselected medical problems; how to work within a health care team; and how to perform a variety of invasive medical procedures needed in the early management of acute illness.

II. Principal Teaching Methods

A. Patient encounters take place in the emergency department at St. Vincent Charity Hospital. This is an institution that provides interventional medical services for acute, cardiac and neurologic disease. The rotation begins with an 0700 meeting in the Emergency Department. The resident is assigned to a teaching attending for this rotation immediately prior to the start of the day shift.

B. Teaching is provided on a patient-by-patient basis involving direct one-to-one interaction with the supervising attending physician. Instruction is accomplished through role modeling, discussion, observation, direct patient care and independent reading and consultation with supporting departments (e.g., Radiology, Vascular Surgery, ICU Medicine, Neurology).

C. Lectures.

1. A resident case presentation is required of all residents rotating through the Emergency Medicine rotation. The presentation must be accompanied with an outline and bibliography.
2. Residents are required to discuss five critical care topics with an attending or senior level emergency medicine resident. The five topics include: cardiac arrest, allergic emergencies, shock/fluid resuscitation, pulmonary edema, airway management. After successfully presenting the topic, the resident has a mini-cex sheet initialed by the attending.

D. Independent reading is expected. The attending will suggest a text if necessary.

III. Educational Content

A. The Emergency Department hosting the rotation provides emergency care to the surrounding area.

B. The demographic characteristics of the patients using the emergency departments include all races, ages, sexes, and socioeconomic strata found in Cleveland. There is an over-representation of working poor and uninsured seen in the emergency department.

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C. Types of Clinical Encounters

1. The resident will experience first contact with unselected patients in the emergency department, providing emergency care services.
2. The Emergency Department serves an average of 90-120 patients daily. The number of clinical encounters experienced by the resident is determined by the level of training and capability of the resident as judged by the supervising physician as well as by the intensity of illness presenting.
3. While on the Emergency Medicine rotation, residents will work an average of four 40-hour weeks in 8-hour shifts. Shifts must include one (1) complete weekend shifts 2 days out of the four weekends of the rotation.
4. The Emergency Medicine rotation qualifies as a meaningful patient responsibility rotation.

IV. Principal Ancillary Educational Materials

A. Procedures and Services

1. The procedures that are either reinforced or learned during the Emergency Medicine rotation include: cardiopulmonary resuscitation, venous phlebotomy, bladder catheterization, arterial blood sampling, central line placement, nasogastric tube placement, lumbar puncture, arterial line placement, and endotracheal intubation.
2. The interpretative skills that are either reinforced or learned during the rotation include ECG, chest radiographs, urinalysis, head CT scans, arterial blood gases, and other laboratory assays.

B. Educational Materials

1. At the beginning of each rotation, the resident is provided with the Emergency Medicine Learning Goals and Objectives.
2. A list of topics to be studied is provided
3. Online access to multiple resources including Uptodate, Access Medicine and MDConsult is readily available to Residents.

V. Methods of Evaluation

A. Resident Performance: All the attending physicians with whom residents come in contact are involved in resident evaluations. The final evaluation is a composite of many individual evaluations and includes: clinical performance, attitude, fund of knowledge, interpersonal relationships, and communication abilities. Ultimately, all of the General Competencies are assessed. This evaluation is shared with the resident and is incorporated in the performance reviews for directed feedback.

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B. Faculty/Service Performance: An end of rotation evaluation of the attendings and service is completed by the resident and is available to the program director and training committee for their review.

VI. Institutional Resources: Strengths and Limitations

A. Strengths.

1. Faculty:

- a. Several faculty members are board certified in Emergency Medicine.
- b. The teaching evaluations of the attending physicians by the residents are generally quite favorable.

2. Facilities and Technology:

- a. Facilities are modern and the support staff is more than adequate. Consultation services from radiology and all the medical subspecialties are available readily. Patient mix represents a good cross-section of the general population with its acute care problems.
- c. Web based searchable medical databases are available through the library and standard medical journals are available in both print and electronic formats. In addition, all residents have 24-hour access to the extensive online St. Vincent Charity Hospital and University Hospitals electronic library, including databases and electronic printouts. Computer based resources are available at the hospitals to facilitate patient care, education, and communication. The following are made available:
 - i. Computer assisted diagnosis and decision support.
 - ii. Drug information including side effects and drug-drug interactions.
 - iii. Electronic patient information accessibility.
 - iv. Electronic textbooks of medicine.
 - v. E-mail services.
 - vi. Internet access to medical sites on the World Wide Web.
 - vii. Laboratory and radiology results retrieval.
 - viii. Multimedia procedures training.
 - ix. Patient education materials.

B. Limitations. Lack of advanced technology such as ECMO, Burn Center resources and organ transplant service. Some extreme emergencies require transfer to other centers.

VII. Rotation Specific Competency:

A. Patient Care.

1. General physical examination with problem specific special testing is within the capability of residents at all levels. PGY-1 residents should seek aid from

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advanced residents in carrying out and interpreting specific testing.

2. Procedures needed to treat Emergency Department patients will be known and performed by residents appropriate to the level of experience. These include the following procedures:

- a. Venous phlebotomy
- b. CPR
- c. Arterial blood sampling
- d. Central line access
- e. Lumbar puncture
- f. Nasogastric tube placement
- g. Thoracentesis
- h. Bladder catheterization
- i. Abdominal paracentesis

B. Medical Knowledge: Residents at all levels will be familiar with interpreting laboratory and radiologic data, making logical assessments and epidemiological considerations. This will permit:

1. Accurate determinations of which patients need hospital admission or referral to outpatient care centers.
2. Appropriate initial management for those patients requiring stabilization in the Emergency Department prior to admission.
3. Discharge to home care with appropriate follow-up care arranged for those patients not requiring admission.

C. Interpersonal and Communication Skills: Residents at all levels will be able to provide legible records of their findings and make concise but complete oral presentations. This will include:

1. History and physical examination findings.
2. Management of acute problems and follow up needed.
3. Written brief but pertinent notes documenting findings.

D. Professionalism: All residents will demonstrate integrity, accountability, respect, compassion, patient advocacy and dedication to patient care that supercedes self-interest. Residents will demonstrate a commitment to excellence and continuous professional development. They will be punctual and prepared for teaching sessions. Residents will demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, and informed consent. Residents are expected to show sensitivity and responsiveness to patients' culture, age, gender and disabilities.

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E. Practice Based Learning and Improvement.

1. Residents will fully support and use quality improvement protocols and tools developed and adopted by the emergency department.
2. Residents will use hospital and University library resources to critically appraise medical literature and apply evidence to patient care. They will use hand-held computers, desktop PCs and Internet electronic references to support patient care and self-education.
3. They will, in addition consistently seek out and analyze data on practice experience, identify areas for improvement in knowledge or patient care performance, and make appropriate adjustments. They will regularly demonstrate knowledge of the impact of study design on validity or applicability to individual practice.

F. Systems Based Practice.

1. PGY-1 residents will be sensitive to health care costs while striving to provide quality care. They will begin to effectively coordinate care with other health care professionals as required for patient needs.
2. PGY-2 residents, in addition to the above, will consistently understand and adopt available clinical practice guidelines and recognize the limitations of these guidelines. They will work with patient care managers, discharge coordinators and social workers to coordinate and improve patient care and outcomes.
3. PGY-3 residents, in addition, will enlist social and other out-of-hospital resources to assist patients with therapeutic plans. PGY-3 residents are expected to model cost-effective therapy.