Crouse Hospital Emergency Medicine Curriculum

The Crouse Hospital emergency medicine rotation exposes residents to the care of patients in an acute setting with a wide array of medical, surgical, social and psychiatric problems. The rotation provides residents the opportunity to become comfortable handling medical and surgical emergencies which may arise on inpatient services during a patient's hospitalization or during presentations in outpatient encounters. Residents will be involved with potentially providing care to patients of all ages though the focus will be adolescence through the elderly. The patients will be from varying social and cultural backgrounds of both male and female genders. The elective occurs in a busy community based emergency department exceeding 65,000 visits per year with both Stroke Center and Acute Chest Pain Center designations under the supervision of licensed emergency medicine physicians with a full complement of consultation services available. The attending physicians include:

Dr. Richard Steinmann – Vice Chief
Dr. James Mills
Dr. Michael Jorolemon
Dr. Fouad Boulos
Dr. Walter Kantor
Dr. Gina Hayes
Dr. Karen Murphy
Dr. David Mason – Chief
Dr. Stephen Rachfal
Dr. John Skopek
Dr. Hagop Isnar
Dr. David Seeley
Dr. Lawrence Moloff

I. Educational Purpose

Emergency medicine involves the evaluation and care of acute illness and injuries that require intervention and appropriate triage. Conditions may be encountered in office practices or in acute care settings such as the ED. 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 conditions. The range of competencies expected of a general internist will depend on the availability of emergency physicians and other specialists in the community.

II. Learning Venue

A. Rotation Description-The emergency department rotation is of two weeks duration and occurs within the confines of the Crouse Hospital Emergency Department. The resident will work on various shifts lasting ten hours each with the emergency department attending, consultation services, nursing staff, social

workers, and support staff. The number of patients seen on a daily basis will be determined by the patient load experienced during a particular shift and a resident's individual competency.

Expectations of PGY-3: The resident is expected to be the first physician to evaluate the patient wherever the acuity allows. They will interview and examine the patient using directed techniques based on the severity of the patient's illness and chief complaint. The resident will then formulate a working diagnosis and differential diagnosis as well as an approach to elicit the diagnosis and plan treatment of the problem. This plan will be discussed with the attending after which appropriate orders and treatment will follow. That patient will be followed through until a final disposition is made or the patient is signed out to the next shift.

B. Teaching Methods- Residents involved in the emergency department rotation will attend noon conference when available as well as Power Rounds. Teaching will occur mainly through direct interaction with the attending as care is provided for the acutely ill patient. Opportunities for teaching will also be present while interacting with consultation services. Direct supervision by the emergency department attending will assist in teaching by means of discussing the plan of treatment and examining/treating the patient.

1. Recommended Reading

- *Goldfrank's Toxicologic Emergencies (Toxicologic Emergencies)* by Neal Flomenbaum, Lewis Goldfrank, Robert Hoffman, Mary Ann Howland, Neal Lewin, Lewis Nelson
- *Atlas of Human Anatomy*, 4th ed. By Frank H. Netter, MD
- *Sanford Guide to Antimicrobial Therapy*, 2009, by David N, Gilbert, MD; Robert C. Moellering, Jr., MD; George M. Eliopoulos, MD; Henry F. Chambers

2. Unique Learning Opportunities-The emergency department setting provides an inherently unique opportunity based on the acuity of the patients' complaints. Residents will be afforded the opportunity to be the first physician to diagnose and treat the patient's illness including acute and chronic psychiatric and surgical patients. Residents will learn to interact with consultants, nurses, and families under unique conditions. Residents are also scheduled to perform ride-alongs with EMS in the City of Syracuse's active 911 system. This exposes housestaff to an entirely new patient care environment with, at times, different priorities. This expands resident competencies in understanding broader based systems of care.

3. Mix of Diseases

Common Clinical Presentations and diseases:
Abdominal pain
Acute loss of vision
Back Pain

Cardiac arrest
Cardiac dysrhythmias
Chest pain
Coma, altered mental status
Dehydration
Diarrhea
Dyspnea
Fever
Gastrointestinal bleeding
Headache
Hemoptysis
Fractures
Lacerations
Leg swelling
Musculoskeletal trauma
Palpitations
Severe hypertension
Shock
Sprains and Strains
Syncope
Vaginal bleeding
Volume depletion
Vomiting
Wheezing

4. Procedures:

Advanced cardiac life support
Central lines
Intubation
Arthrocentesis
Fluorescent staining of cornea
Mask ventilation to maintain airway
Placement of nasogastric tube
Suturing of laceration (optional)

III. Educational Content

Cardiovascular
Acute or chronic congestive heart failure
Arrhythmias
Cardiopulmonary arrest
Chest pain, stable and unstable angina, myocardial infarction
Hypertension, hypertensive emergencies
Shock
Syncope

Unstable thoracic or abdominal aortic aneurysms
Dermatology
Cutaneous ulcers
Rash
Domestic Violence
Endocrine
Acute complications of hyperthyroidism, hypothyroidism
Addisonian crisis
Diabetes mellitus, hypoglycemia, hyperglycemia, diabetic ketoacidosis
Gastroenterologic
Acute abdomen
Acute diarrhea
Acute liver failure
Acute pancreatitis
Ascites
Bleeding
Bowel obstruction
Gallstones, cholecystitis
Nausea and vomiting
Hematologic
Acute complications of sickle cell disease
Anemia, leukopenia, thrombocytopenia
Easy bruising, purpura, ecchymosis
Polycythemia, leukocytosis, thrombocytosis
Hyperthermia, hypothermia
Infectious
Active tuberculosis
Encephalitis
Herpes simplex infection
Herpes zoster infection
HIV infection (including *infectious complications*)
Meningitis
Otitis externa media
Pharyngitis
Pneumonia, bronchitis
Prostatitis, urethritis, epididymitis
Sepsis
Sexually transmitted diseases
Sinusitis
Upper respiratory infection

Urinary tract infection, pyelonephritis
Viral hepatitis
Neurologic
Coma
Head trauma
Headache
Seizure
Transient ischemic attack, stroke, subarachnoid hemorrhage
Ophthalmologic
Acute loss of vision
Red eye
Otolaryngologic
Epistaxis
Vertigo
Overdose, poisoning
Pulmonary
Acute respiratory failure
Asthma
Chronic obstructive pulmonary disease
Pneumothorax
Pulmonary embolism, deep venous thrombosis, phlebitis
Severe airway obstruction
Renal
Acute renal failure, chronic renal insufficiency
Electrolyte, acid-base disorders
Renal colic, kidney stones
Rheumatologic
Acute arthritis (including gout)
Back pain
Sexual abuse

IV. Method of Evaluation

Six core competencies are used for evaluation of residents. Interim evaluations are done throughout the rotation for praise of outstanding work and correction of substandard performance. Emergency department attendings evaluate the residents at the end of the rotation using the e-value web based system.

V. Rotation Specific Competencies

A. Patient Care- Residents must provide care to patients and counseling to family members under emergent conditions. This includes discussing potential end of

life issues, admission into the hospital, coordinating consultative care in the emergency department and follow up care when patients are discharged. Residents are likely to encounter clinical situations in non-medicine areas and will need to recognize the appropriate early intervention of ED attendings and specialists from all disciplines.

B. Medical Knowledge- Residents will need to have appropriate skills to assess knowledge in conditions with time constraints. They will need to be well rounded in that the care they provide may be emergent and require aggressive interventions. They will need to be able to interpret radiological studies, stabilize patients with hemodynamic or respiratory compromise and utilize criteria for admission.

C. Professionalism- Residents will need to treat and stabilize patients, and they will also need to interact with staff and family members under stressful conditions. This will require a firm understanding and expression of the principles of professionalism. They will need to express compassion and understanding to people dealing with personal tragedy and stressful situations.

D. Interpersonal and communication skills-Residents will have to maintain superior communication skills in order to explain treatment plans, the need for admission, medication use and follow up care.

E. Practice Based Learning - link

F. Systems Based Practice-Residents will need to develop cost-effective plans when treating patients in an emergency setting using their clinical skills and EBM. They will need to master skills used to determine which patients will need admission and which patients may be sent home with appropriate follow up care. This rotation will expose residents to a broad array of extended care providers and opportunities to improve the logistics of patient throughput in the ED.

Reviewed and Revised by: D. Landsberg, MD
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