



EMERGENCY MEDICINE

Goals: The goal of the Fourth Year Emergency Medicine rotation is to provide learning opportunities that will enable students to develop the knowledge, skills, and attitudes necessary to :

1. Recognize, triage and provide initial management of common urgent and emergent medical/surgical problems in patients of any age or gender.
2. Acquire basic and advanced manual skills in the management of common urgent/emergent medical/surgical problems.
3. Assess patients quickly and efficiently, according to the urgency of the patient's problem.
4. Work as a member an emergency department team.
5. Understand the role of consultants within the framework of an emergency department.

Objectives: Upon completion of this rotation, students will demonstrate:

1. Understanding of the principles of early intervention, including:
 - a. Prehospital emergency care.
 - b. Emergency medicine concepts.
2. Understanding of the principles of time management, including:
 - a. Prioritization and triage.
 - b. Stabilization for transport.
 - c. Simultaneous triage of multiple trauma patients or patients with serious medical illnesses.
 - d. Efficient resource utilization.
 - e. Access to consultants or information.
3. Understanding of the assessment and management of emergency situations, including:
 - a. Trauma: primary and secondary assessment of a trauma patient with multiple injuries, by mechanism of injury (blunt vs penetrating trauma), by site of injury (head, eye, chest, spinal cord and bony spine, abdomen, extremity, urogenital system).
 - b. Neurologic emergencies: the comatose patient, status epilepticus, spinal cord compression, stroke, syncope.
 - c. Psychiatric emergencies: acute psychiatric breaks, suicidal patients, situational crisis, psychosis, domestic abuse issues.
 - d. Burns: classification, outpatient management of first and second degree burns, fluid replacement protocols, indications for hospitalization/consultation.
 - e. Violent patients.

- f. Obstetric and gynecologic emergencies: sexual assault, ectopic pregnancy, miscarriage, preeclampsia and eclampsia, vaginal hemorrhage.
 - g. Victims of violence.
 - h. Pediatric emergencies: the injured child, musculoskeletal trauma, acute abdomen, fever and sepsis, metabolic crises, child abuse.
4. Identifying those osteopathic clinical skills that provide an advantage in the clinical setting in differential and final diagnosis of cases including:
 - a. The osteopathic structural exam.
 - b. Palpatory and observation skills of structure and function.
 - c. Advanced musculoskeletal examination skills.
 - d. Neurologic evaluation skills.
 5. Providing where appropriate the osteopathic clinical skills in the treatment of:
 - a. Somatic dysfunction.
 - b. Sprains.
 - c. Muscular strains.
 - d. Dislocations.
 - e. Edema reducing techniques.
 6. Identify in the use of osteopathic principles and concepts the need to:
 - a. Assure the patient's psychosocial needs are met.
 - b. Assure the whole-person concept is realized in that injury or illness in one system may be related to or cause dysfunction in additional systems.
 7. Understanding of the management of critical care situations, including:
 - a. Acute respiratory problems and airway obstruction.
 - b. Arrhythmias: asystole, ventricular tachycardia, ventricular fibrillation, bradycardia, supraventricular tachycardia.
 - c. Cardiac arrest.
 - d. Ischemic heart disease: acute MI (thrombolysis), cardiogenic shock, unstable angina.
 - e. Cardiovascular pharmacology.
 - f. Resuscitation: organization (coordination, recording, communication), special circumstances (drowning/near drowning, electrocution/lightning injury hypothermia/hyperthermia, cardiac arrest in pregnancy, neonatal/infant resuscitation) immediate post-resuscitative care.
 - g. Other cardiovascular crises: aneurysms of thoracic or abdominal aorta, traumatic diaphragmatic hernia.
 - h. Acid/bases issues.
 - i. Shock: hypovolemic, restrictive, neurogenic, cardiogenic, septic.
 - j. Infectious disease emergencies (meningitis, toxic shock).

8. Understanding of the interpretation of diagnostics, including:
 - a. EKG.
 - b. Radiographs: cervical spine, chest, abdominal series, pelvis, long bones, basic unenhanced head CT.
 - c. Monitors (cardiac and pulse oximetry).
9. Understanding of environmental exposures, including:
 - a. Bites and stings.
 - b. Human, dog and cat bites.
 - c. Poisonous plants.
 - d. Inhalations.
 - e. Hypersensitivity/anaphylaxis.
10. Understanding of toxicologic emergencies, including:
 - a. General approach to the poisoned patient.
 - b. Access to poison control data bases.
 - c. Basic decontamination procedures.
 - d. Consultation/definitive management.
11. Understanding of disease prevention, including:
 - a. Immunization (active and passive), antibiotic prophylaxis.
12. Basic fracture/dislocation management:
 - a. simple dislocations of fingers and toes.
 - b. radial head dislocation.
 - c. anterior glenohumeral dislocation.
 - d. patellar dislocation.
 - e. simple undisplaced fractures of fingers and toes, metacarpals, metatarsals, radius, ulna, humerus, rib, fibular, tibia.
 - f. compression fractures of thoracic and lumbar vertebrae.
 - g. undisplaced pubic rami pelvic fracture.
13. Identifying and appropriately applying the careful and judicial use of osteopathic manipulation in the emergency department setting.
14. The competence required to achieve the following certifications:
 - a. Basic cardiac life support (BCLS).
 - b. Advanced cardiac life support (ACLS).
 - c. Pediatric advanced life support (PALS).
 - d. Advanced life support in obstetrics (ALSO).

15. Proficiency in the following techniques:

- a. Acute MI protocol.
- b. Peripheral IV access.
- c. Paracentesis and lumbar puncture.
- d. Simple laceration repair.
- e. Simple splinting of fractures.
- f. Local blocks.
- g. Cast/splinting.
- h. Optimizing airway patency.
- i. Bag-mask-valve ventilation.

16. Understanding of the following procedures and techniques:

- a. Intraosseous infusion.
- b. Central lines.
- c. Venous cutdown.
- d. Intravenous sedation (conscious sedation).
- e. Complex lacerations.
- f. Endotracheal intubation.
- g. Regional blocks.
- h. Defibrillation/cardioversion.
- i. Pericardiocentesis.
- j. External cardiac pacing.