Genitourinary and Endocrine Emergencies in Children - Lawrence Satkowski, MD
Recognize indications for obtaining a urine culture for children; Recommend the appropriate antibiotic to treat genitourinary infections in children; Differentiate between a hydrocele and inguinal hernia based on history, presentation, and physical examination findings; Prevent deleterious effects to the brain when treating electrolyte imbalances; Determine the severity of acute dehydration in children based on the ratio of serum urea nitrogen to creatinine.

Airway Update - Richard M. Levitan, MD and Ron M. Walls, MD
Perform intubation by first visualizing the epiglottis and not removing O2; Insert the laryngeal mask airway without applying cricoid pressure; Implement appropriate positioning during intubation; Recognize the risks of waiting vs intubation for patients with sepsis; Use the appropriate techniques of intubation and ventilation to maximize hemodynamics and oxygenation.

Pediatric Sepsis and Dehydration - Timothy A. Horeczko, MD, MSCR and Marc H. Gorelick, MD
Utilize the pediatric assessment triangle (PAT) for the initial evaluation of a sick child; Describe the 3 components of the PAT and their significance in evaluation; Assess the degree of dehydration based on the number and type of clinical findings present; Recommend oral rehydration therapy for children with mild to moderate dehydration when appropriate; Determine the adequate volume of fluid replacement based on degree of dehydration, maintenance needs, and ongoing losses.

Trauma: Emerging Issues - Marc K. Eckstein, MD, H. Gill Cryer, MD, and Lawrence M. Diebel, MD
Identify the components of a successful scene response; Analyze the lessons learned from recent significant multicasualty events, including the Boston Marathon bombing; Help prepare a hospital to triage and treat patients during a surge event; Discuss the various components of adipose tissue and list their inflammatory and microcirculatory effects; Explain the detrimental effects of visceral adiposity in an obese trauma patient.
Pediatric Emergencies: Syncope/Seizures - Alfred Sacchetti, MD and Andrea Marmor, MD, MSEd

Explain the theories on the pathophysiology of noncardiogenic syncope (NCS); Distinguish between NCS and cardiogenic syncope; Recognize indications for either admission to the observation unit, conditional discharge, or discharge in cases of pediatric syncope; Determine when work-up and referral for a neurologic consultation are appropriate in a child with seizures; Prescribe the appropriate drugs for status epilepticus in children.

Neurologic Emergencies - Robert Orman, MD and Christine E. Finn, MD

Obtain information to determine a patient’s risk factors for suicide; Recognize which risk factors most significantly increase the risk for suicide; Use a mnemonic (TRAAPPED SILO SAFE) to help estimate a patient’s risk for suicide based on the presence of risk factors and protective factors; Use verbal de-escalation as a strategy to avoid the use of seclusion or restraint with an agitated patient; Choose the appropriate medication to manage an agitated patient.

Update on Cardiac Resuscitation - David Barnes, MD

Identify changes to the 2010 American Heart Association guidelines on basic life support and advanced cardiac life support; Enhance the efficacy and quality of chest compressions to improve neurologic outcomes; Recognize the importance of minimizing interruptions and the concept of compressions-only cardiopulmonary resuscitation (CPR); Describe the short-term benefit and potentially harmful long-term effects of vasopressors in CPR; Discuss the pathophysiology of ischemia-reperfusion injury.

Acute Coronary Syndrome/ Cardioversion - Jeffrey Tabas, MD and Eric F. Silman, MD

Obtain the appropriate tests to rule out myocardial infarction and unstable angina; Recognize the conditions that can result in detectable troponin levels; Discuss the role of computed tomographic coronary angiography; Utilize biphasic defibrillation for ventricular fibrillation and for cardioversion in atrial fibrillation; Implement proper positioning for defibrillation and cardioversion.

Litigation Labyrinth - Gillian Schmitz, MD and Gregory L. Henry, MD

Understand the short-term and long-term effects of a medical malpractice lawsuit on physicians; Utilize counseling services and other resources available to minimize the effects of a malpractice lawsuit; Participate actively in the litigation process; Implement strategies to reduce patient complaints; Recognize the importance of documenting actions taken in the emergency department, particularly regarding patients who leave.

Trauma in the Rural Setting - Bart Besinger, MD and Philip F. Stahel, MD

Manage farm-related traumatic injuries; Recognize the indications for prophylactic antibiotics for farm-related traumatic injuries; Discuss the pathophysiology of crush syndrome; Educate farm families about strategies to prevent farm-related injuries; Practice spine damage control for acute spine injuries.