

## Pediatric Disorders

### *Cruising the Literature: Pediatric Emergency Medicine 2020*

Faculty: Richard M. Cantor, MD, FACEP

Keeping up with the expanding pediatric emergency medicine literature is a challenge for busy emergency physicians. The speaker will review the recent literature from the past twelve months & discuss those articles that could affect the way you treat pediatric patients.

- Discuss the most important articles published in the pediatric literature during the past year.
- Identify trends & changes in emergency medicine as they emerge in the literature.
- Discuss the most current diagnostic & therapeutic management in pediatric emergency medicine.

### *Newborn Resuscitation: Born But Not Breathing*

Faculty: Emily C. MacNeill, MD

The newly born child in your department will generate a lot of attention naturally. While the vast majority of children who are born in the ED do perfectly fine on their own, occasionally things go awry. Neonatal resuscitation is distinct from resuscitation of older children & adults & deserves specific consideration. The presenter will discuss the unique anatomic & physiologic differences that exist with the newly born. The basic techniques & strategies of resuscitating a newly born patient will be covered. Potential pitfalls & pearls will also be highlighted.

- Explain the anatomic & physiologic differences that exist with a newly born patient & anticipate how those differences will affect the resuscitation.
- Discuss the basic strategies & techniques to successfully resuscitate a newly born child.
- Discuss some of the potential pitfalls of the resuscitation of the newly born child & how to avoid them.

### *Subtle Signs of Abuse: It's Not All About Bruises*

Faculty: Alisa A. McQueen, MD, FACEP

Child physical & sexual abuse is a challenging & difficult problem in the ED. Subtle signs can identify patients who present & are at risk for further trauma. New recommendations for testing & treatment of injuries & STIs have clinicians on the front lines of care for these patients. Discussion of the important role in the linkage to care that EDs play in the care of these patients will also be presented.

- Identify subtle signs of abuse in pediatric patients who present to the ED for evaluation.
- Recognize signs of neglect & determine best care path to provide a safe disposition.
- Evaluate new recommendations of abuse evaluation in the ED including CT/MRI imaging, cervical spine imaging, STI testing & treatment.

### *The Unvaccinated Child in the Pediatric ED*

Faculty: Daniel Imler, MD

Tetanus, H flu, Measles, Mumps, Pertussis, Polio, and the list goes on. An unvaccinated/partial vaccinated child presenting to the ED with fever or injury presents a challenge because they could have one of these diseases that vaccinated patients rarely get. The speaker the evaluation and treatments that the unvaccinated patient will need and the best way for you to utilize an unique opportunity to provide education/advocacy to families about getting vaccinations.

- Describe the increased risk for serious infections and need for expanded work up in unvaccinated child.
- Discuss risk/benefits of tetanus toxoid and TIG administration in unvaccinated patients with lacerations/abrasions.
- Advocate parents/family members to vaccinated their children.
- Advocate for vaccination with family members/parents of unvaccinated children.

### *Pediatric Status Asthmaticus in 2020: What's in Your Kitchen Sink*

Faculty: Emily C. MacNeill, MD

The severe status asthmaticus patient who is not rapidly responding to your initial therapies can be quite terrifying? What is in your kitchen sick to throw at the toxic, critically ill status asthmaticus pediatric patient? The presenter will discuss the potential techniques & tools available that may help improve the dire situation & prevent the need for intubation. The presenter will also discuss appropriate ventilation management in the event that those strategies were not successful.

- Describe strategies to improve oxygenation & ventilation in the pediatric patient with severe status asthmaticus.
- Discuss the potential pros & cons of using non-invasive ventilation in the pediatric patient with severe status asthmaticus.
- Discuss possible non-traditional use of medications like ketamine to help prevent intubation.

### *All That Wheezes is NOT Asthma: Other Causes of Pediatric Cough, Stridor, and Wheeze*

Faculty: Ian D. Kane, MD

The speaker will present an evidence-based review of treatment modalities for bronchiolitis, croup, & pneumonia.

- Recognize pediatric respiratory diagnoses & differentiate from benign presentations.
- Determine diagnostic & treatment strategies for critical pediatric respiratory diagnoses.



### *ALTE/BRUE: Can This Kid Go Home?*

*Faculty: Marianne Gausche-Hill, MD, FACEP, FAAP*

The brief resolved unexplained event (BRUE - previously known as apparent life threatening event ALTE) usually presents in a seemingly benign manner, however there is some associated morbidity & mortality. How can we risk stratify these children? Can the BRUE child go home? The presenter will discuss the most current, evidence-based literature on the topic. A reasonable initial evaluation & management strategy will be conveyed.

- Explain the definition of a brief resolved unexplained event (BRUE).
- Discuss the most common causes of ALTE/BRUE & know some of the more unusual ones as well.
- Form an evidence-based approach to the evaluation & management of ALTE/BRUE.

### *Avoiding the Pitfalls in Pediatric Orthopedics*

*Faculty: Emily C. MacNeill, MD*

The identification and treatment of pediatric orthopedic injuries is an extremely difficult aspect of working in an ED due to the often paucity of radiological findings and relatively rarity of the conditions encountered. Yet we can't miss these injuries. The speaker review the latest in pediatric orthopedics so that making that diagnosis will be a "snap".

- Classify the anatomy of the pediatric musculoskeletal system and compare to adults.
- Review the most commonly missed pediatric orthopedic injuries presenting to the ED.
- Integrate physical examination findings with radiological finding to make orthopedic diagnoses in the ED.

### *Different Strokes for Pediatric Folks*

*Faculty: Amanda B. Price, MD*

Pediatric strokes are increasingly recognized in pediatric & community EDs. Cased-based presentations of pediatric strokes will reviewed. Challenges in the recognition & mimics of pediatric stroke are also critical to understand in the timely diagnosis of this emergent presentation. Treatment strategies including tPA & interventional radiology will be explored. Challenges & community-based strategies to treatment & identification will be discussed.

- Determine the epidemiology, presentation & mimics of acute pediatric ischemic CVAs.
- Explain diagnostic strategies including ideal approaches to acute imaging in pediatric patients.
- Identify treatment strategies in this critical time based presentation.

### *Does This Itis Need Antibiotics? Otitis, Bronchitis, Conjunctivitis, Sinusitis and Antibiotic Stewardship*

*Faculty: Daniel Imler, MD*

Antibiotic stewardship in children is challenging in the busy ED- correct diagnosis and making patients happy can collide with evidence based medicine. Strategies and tools such as safety net antibiotics, education and communication will be discussed.

- Identify the indications for antibiotics in otitis media, conjunctivitis, sinusitis and bronchitis.
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- Discuss patient focused strategies to provide evidence based care and antibiotic stewardship.

### *Fussy Infant*

*Faculty: Alisa A. McQueen, MD, FACEP*

The fussy irritable infant is a challenge to the most seasoned provider. A frequent complaint with critical implications but frequently no acute findings is frustrating to physicians, parents & patients. Strategies employed in the evaluation & disposition can engage families & mitigate some of this stress for families & limit risk. Real world techniques that are easily implemented will be the focus of the presentation.

- Describe the approach to the fussy infant.
- Determine ideal testing & diagnostic strategies for evaluation of the infant who is fussy & crying.
- Identify shared risk models & engagement strategies to assist in disposition of patients.

### *Keeping It Simple: Pearls and Pitfalls in the Emergency Care of Medically Complex Children*

*Faculty: Christian D. Pulcini, MD, MEd, MPH*

There has been increased survival for medically complex children creating new and unique challenges to emergency medicine physicians. The initial care of these patients during their emergencies will likely not be in the tertiary or quaternary children's hospital, but more commonly in the community emergency department. This session will help enlighten you and alleviate your fears of providing care to these complex children until they are transported to their designated referral center.

- List 3 reasons why it is important to plan for urgent and emergency care of children with medical complexity in all healthcare settings.
- Describe current strategies and challenges in addressing the healthcare needs of children with medical complexity.
- Develop an appropriate emergency management plan for children with medical complexity based on varying clinical scenarios.
- Demonstrate techniques and strategies to successfully address acute issues with common medical technologies in children.

### *Kids Dropping Out: Pediatric ECG From Normal to Disaster*

*Faculty: Christian D. Pulcini, MD, MEd, MPH*

Pediatric ECGs are not just little pieces of paper. The speaker will explain how & why the "normal" ECG changes over time in kids & what is always abnormal & what can be normally abnormal.

- Discuss how & why the pediatric ECG changes over time.
- Identify the "big bad uglies" on pediatric ECGs
- Explain the differences on ECGs in athletes.
- Discuss the life-threatening conditions that present with chest pain or syncope in pediatric patients.

### *Life-Threatening Radiographic Emergencies in Pediatric Patients*

*Faculty: Russ Horowitz, MD*

In the pediatric patient, life-threatening radiographic findings can often be subtle & easy to miss. The speaker will review important & potentially life-threatening findings found on pediatric radiographs. Cases that are specific to the pediatric population including cardiac, abdominal, traumatic, & infectious disease emergencies will be reviewed.

- Review life-threatening conditions displayed on pediatric radiographs.
- Discuss how to read radiographic images specific to the pediatric population.
- Recognize serious radiographic findings of numerous pediatric cardiac, abdominal, traumatic, & infectious emergencies.

### *Mistakes You Do Not Want to Make in Pediatric Patients*

*Faculty: Steven M. Selbst, MD, FACEP*

Besides the obvious challenges of children's nonverbal clues & their having unique illnesses & presenting symptoms, the diagnosis & treatment can be full of pitfalls. The speaker will explain what key features of childhood illnesses should "raise the red flag" & how not to be missed. Key issues such as missed meningitis & appendicitis, as well as other uncommon "legal" based diagnoses will be discussed. New cases are added yearly to this popular course.

- Identify the challenges of diagnosing illnesses in children & their nonverbal clues.
- Recognize "red flags" in pediatric illness.
- Discuss the most commonly missed pediatric diagnoses: meningitis, appendicitis, intussusceptions, & fractures.

### *Neurologic Zebras in Kids: Flaccid Myelitis, ADEM, NMDA Receptor Antibodies and More*

*Faculty: Amanda B. Price, MD*

There are rare & unique presentations of acute neurologic emergencies that present in pediatric patients. Careful assessment, testing & disposition will allow the identification of these rare but very important diseases that appear to be on the rise. Flaccid myelitis, acute disseminated encephalomyelitis, and NMDA receptor encephalitis will be the “zebras” discussed in this lecture.

- Determine how to diagnose, assess & disposition the child with an undetermined acute neurologic presentations, including key examination & testing in the ED.
- Discuss the emerging identification, diagnosis & treatment of these unusual neurological presentations in pediatric emergency medicine.

### *Pediatric Lung Ultrasound: Time to Ditch the Chest X-Ray?*

*Faculty: Russ Horowitz, MD*

Point-of-care ultrasound is a great diagnostic tool in pediatric patients with respiratory related medical and surgical complaints. It is uniquely suitable for young children where the anatomy is shallow and radiation sparing is important. It is safer and faster compared to chest x-ray. Recently published studies have shown that it is equivalent or in some cases superior to plain radiography in efficacy as well. During this session, the presenter will discuss techniques, tips, and pitfalls for pediatric lung ultrasound. Literature supporting its use will be summarized. Typical findings in pediatric pneumonia, bronchiolitis, pneumothorax, empyema, lung contusion, & other common pulmonary conditions will also be reviewed.

- Recognize how point-of-care ultrasound can be used to evaluate pediatric patients with undifferentiated respiratory complaints.
- Review pediatric lung POCUS techniques as well as tips and potential pitfalls.
- Describe common pathological findings of pediatric lung POCUS.

### *Pediatric Myths, Misnomers and Flat Out Lies*

*Faculty: Katherine E. Remick, MD, FACEP*

Every clinician knows that intussusception presents with currant jelly stools & procalcitonin is the best test to evaluate a febrile child & if you look hard enough you can always find a palpable olive in an infant with pyloric stenosis. Well, every clinician may be wrong. This session will challenge many of the long held tenets of pediatric emergency medicine in a spirited presentation that will certainly change many of your practices.

- Recognize those long held tenets of pediatrics that are now changing was a result newer evidence based findings.
- Identify how some pediatric dogmas have changed over the last decade.
- Explain how to critically evaluate some of the long standing “golden rules” of pediatric emergency medicine.

### *Pediatric Nightmare: Endocrine and Metabolic Emergencies*

*Faculty: Mimi Lu, MD, FACEP*

What do a very dehydrated 7-day-old infant, a comatose 2-month-old child, and a 7-year-old child with polydipsia and polyuria have in common? They each have a potentially catastrophic endocrine or metabolic problem that requires rapid implementation of treatment to prevent severe morbidity and mortality. The speaker will review some of the critical endocrine and metabolic emergencies, how to distinguish among them, and how to begin appropriate resuscitation.

- Discuss the presentation of an infant with congenital adrenal hyperplasia.
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- Differentiate among common urea cycle defects and initiate workup and fluid resuscitation.
- Expertly manage a child in diabetic ketoacidosis.
- Discuss some of the unique findings in children with organic acidurias.

### *Pediatric Psych: Punk, Parenting, or Psychiatric Emergency?*

*Faculty: Steven M. Selbst, MD, FACEP*

Children present with a multitude of psychiatric & behavioral problems at an ever increasing rate. ODD, ADD, ADHD, new medications, social media & bullying, suicidal ideation & homicidal ideation. These patients are different than adult patients for a number of reasons. These will be explored, along with the best practices for evaluation, treatment & disposition of pediatric patients with psychiatric & behavioral problems.

- Describe the pediatric behavioral problems such as ODD, ADHD, ADD & others & their presentations & care in the ED.
- Explain the assessment, stabilization & safe disposition of the pediatric patient with suicidal or homicidal ideation.

### *Pediatric Sickle Cell Disasters*

*Faculty: Coburn H. Allen, MD, FACEP*

Sickle cell disease can cause exquisite physical pain in pediatric patients, but it also can lead to critical medical conditions, that if not managed expertly can cause severe morbidity and mortality. The clues to detecting these emergent and critical conditions, such as splenic sequestration, acute chest syndrome and severe sepsis/bacteremia will be covered as well as their most current management strategies.

- Identify the important complications associated with sickle cell disease in children.
- Recognize how these critical illnesses may initially present in subtle fashions.
- Discuss the most evidence-based management strategies for these critically ill patients.

### *Pediatric Tricks of the Trade: What They Didn't Teach You in Residency*

*Faculty: Mimi Lu, MD, FACEP*

What is the best way to remove tenacious earwax? Can you really get away with not performing a lumbar puncture on a 4-month-old with a febrile seizure? Would a pediatric emergency physician manage these cases differently than a general emergency physician? The speaker will share experiences and expert insights that are not necessarily taught in any textbook. Diagnostic and therapeutic pearls will be stressed.

- Identify effective physical examination techniques that are age or developmentally appropriate.
- Describe 5-10 new diagnostic or therapeutic pearls specific to children not previously known.
- Apply these pearls in the setting of a general emergency medicine practice.

### *Scary Baby Bellies*

*Faculty: Ian D. Kane, MD*

Abdominal pain is one of the most frequent pediatric complaints. In the sea of gastroenteritis there are serious diseases that can't be missed. Case-based presentation & review of cardinal symptoms & signs of NEC, volvulus, hirschsprungs & pyloric stenosis. The latest EBM guidelines & management for academic & resource poor settings will be reviewed.

- Recognize critical abdominal pain diagnoses & differentiate from benign presentations.
- Determine diagnostic & treatment strategies for critical pediatric abdominal pain diagnoses.

### *The 1st 60 Minutes: Initial Management of the Critically Ill Infant*

*Faculty: Richard M. Cantor, MD, FACEP*

Critically ill kids scare all of us! Fortunately, the critically ill child is rare even in the pediatric ED. Unfortunately, this rarity can often lead to discomfort in the management of these patients. Due to the subtle signs & symptoms of illness in children, the initial management is frequently delayed & sub-optimal which can lead to poor outcomes. The presenter will illustrate & highlight the important findings that can alert clinical providers to the child who is critically ill. Evidence-based strategies that will lead to improved clinical outcomes & save lives will be discussed.

- Describe the overt as well as the subtle clinical findings of neonatal shock.
- Discuss methods & strategies to improve the early recognition of the critically ill young infant.
- Explain how to implement protocols aimed at improving the management of the critically ill infants in the ED.



### *The Critical Child in the Community ED: Optimum Care Without Optimum Resources*

*Faculty: Katherine E. Remick, MD, FACEP*

Many children in the ED require stabilization and then transfer. The speaker will focus on the management of such children outside the confines of a tertiary care children's hospital. Information will be presented on preparation, equipment, staffing, and transfer protocols as well as practical approaches to case-based scenarios. The central role of the community ED in critical care pediatrics will be stressed.

- Describe stabilization tips and techniques to manage critically ill or injured children.
- Describe the preparation and equipment resources needed to optimize care in a community ED for critically ill children.
- Explain the importance of having transfer agreements with tertiary care children's hospitals.

### *You're Feeling Sleepy Now: Pediatric Sedation*

*Faculty: Daniel Imler, MD*

The sedation of pediatric patients can be stressful for the busy provider while not providing sedation can be stressful & harmful for the patients & families. Ideal sedation strategies for different procedures will be explored & indications & contraindications explored. Sedation medication & pharmacology will be discussed including nitrous oxide, ketamine & other agents.

- Determine the approach, medication selection & monitoring plan for the pediatric patient who needs procedural sedation in the ED.
- Determine the risk benefit & key patient selection factors in not sedating, sedating in the ED or anesthesia performing sedation in the OR.
- Describe key parameters in both the outcome of a successful sedation & establishing a successful sedation program in the ED.