# **2024 COURSE DESCRITIONS**

# **EKGs to Know and Fear:**

Dr. Sheppard

Not every EKG is a STEMI. But there are often important findings that you should be aware of to protect your patients and get them the right care. This talk covers Wellen's Warning / Syndrome, Brugadas, Sgarbossa and others. At the end of this talk, the audience should be aware of EKG findings that foreshadow bad outcomes for their patients if not recognized. In the prehospital and critical care world, we need to be the EKG experts as some of these findings are transient and we may be the only ones to see them.

# Death by Ventilator:

Dr. Sheppard

RSI (or DSI) is one of the great advances in Emergency Medicine and pre-hospital care. However, it comes with potential for great problems as well. The peri-intubation time is a very high-risk period with peri-intubation arrest occurring at a significant rate and generally does not have a good outcome. This talk covers the things that can be done to minimize bad outcomes. At the end of this lecture, the audience should understand the importance of, and ways to prevent, peri-intubation hypoxia and peri-intubation hypotension. The audience should understand and be able to prevent and treat immediate post intubation complications such as breath stacking, hyperoxia, and worsening acidosis. Finally, the talk reviews things that can be done immediately after intubation to minimize the chances of downstream complications such as VAP, VILI, ARDS, and fluid overload.

# **Rescue Task Force (RTF) for Active Threat MCI Response**

### Bill Justice

By the end of this session, the participant will be able to: (1) Understand the importance of the rescue task force structure, (2) Utilize the SALT Triage method during MCI, and (3) Understand the new accepted standard for dealing with an active shooter event.

Course Content: (1) Explain the active threat event, (2) Review the RTF structure for an active threat response, (3) Utilize the SALT Triage format, (4) Initial law enforcement response (hunting team), (5) LEO & EMS integrated response structure, and (6) What has changed in the aspect of an active threat event.

# Heads Up! Traumatic Brain Injury

#### Stephen Rahm

Traumatic brain injury (TBI) is a major cause of death and disability following trauma. Actions taken by the EMS provider—regardless of level of training—have a direct impact on patient outcomes. This presentation is geared towards all levels of EMS provider. It begins with a discussion of cerebral perfusion, the normal physiologic processes the body employs to maintain it, and how the body responds to increased intracranial pressure—knowledge that is crucial to understanding why some prehospital interventions are performed and why others are (and should be) avoided. The potentially disastrous effects of secondary brain injury, and how to minimize or avoid it, are discussed in detail. Specific injuries discussed include subdural and epidural hemorrhage (focal injuries), axonal injury (diffuse injury), and intracerebral hemorrhage; this includes clinical presentations. We will also review the latest scientific literature regarding the use of TXA for the TBI patient, as well as the effects of hard cervical collars on intracranial pressure.

# Airway Management: The Anatomy, Physiology, and Procedure

# Stephen J. Rahm, NRP

Do you measure your success at airway management on whether you "get the tube," or do you measure it by how well you keep the patient oxygenated and ventilated? The techniques to achieve effective oxygenation and ventilation vary-but the end game does not (and cannot). This presentation begins with a review of key airway anatomy utilizing highresolution cadaveric images. You will see exactly where your simple airway adjuncts and supraglottic airways—when properly placed—sit in the airway, perhaps giving you a better understanding of how they work and how effective they can be. Sure, we'll discuss good intubation techniques, but not before resetting the concepts of foundational airway management in our minds. We will then review the physiology of ventilation to appreciate that breathing does more than just move air into and out of our lungs. You will then understand and appreciate why it's healthier for patients to let them breathe on their own. Have you ever been ventilating a patient and totally trashed their blood pressure? After this discussion, you'll understand why this happened, as well as how it could have been prevented. Bottom line: if you deliver a well oxygenated and ventilated patient to the emergency department, regardless of how you achieved it, your patient wins every time. On the other hand, if you deliver a hypoxemic, hypotensive patient...well, you can see where that train will go.

# Be Where Your Feet Are...Building Your Own Resiliency

Scott Lail

We see things we shouldn't see and hear things we weren't meant to hear. So what happens when the experiences are too much, and your plate is full or begins to overflow? What if there was something we could do to proactively prepare ourselves for these traumatic events and help mitigate their effects on us? Luckily there IS something we can do; we can build resiliency! This session will offer a brief introduction to the challenges associated with reactive responses to trauma. More importantly, it will explore several techniques to help Responders build their own upstream resiliency. This lecture is appropriate for everyone from the newest rookie to senior leadership and management, and the discussion may range from emotional and dark to smiles and laughter. Ultimately, it is designed to help Responders live their best life!

# **Exploring Boring: Fun With the Endocrine System**

Scott Lail

When most EMS providers think about attending a class over the Endocrine System, their first reaction is typically "Oh No!" But, when we realize that every cell in the body is influenced, in some way, by the Endocrine System, the study becomes very interesting! This lecture, taught by someone who is in no way an Endocrinologist, takes a complex and convoluted system and makes it easy to understand, memorable and fun! It also explores some of the more common disorders associated with the Endocrine System.

### Normal Vs. Special Needs; Let's Redefine Normal

Scott Lail

"Special Needs" is an umbrella term with a vast array of diagnoses. Children and adults with special needs may have mild learning disabilities or profound mental challenges; simple developmental delays that show up early or remain entrenched; occasional panic attacks or serious, life-changing psychiatric problems. When these conditions are combined with a critical illness or injury and involve movement to more specialized treatment, air and ground transport programs are faced with a difficult mission. This lecture will take an emotional, introspective look at how we view and interact with these patients. It will also review some important concepts and "pearls" for transport personnel.

# There's Something in the Water: Drowning (1 hour)

Janet Taylor

NCCR: Operations, Medical, Airway/Breathing/Ventilation, Trauma

In 2002, the World Health Organization released its new guidelines regarding the definition of drowning, but no one noticed. 20 years later, we are still behind in proper identification of drowning and, more importantly, treatment. We will go over the pathophysiology behind drowning, and why we need to change our thinking when someone walks up to you and reports, "I drowned".

# OBJECTIVES

- 1. Define drowning according to the World Health Organization and determine fatal and non-fatal.
- 2. Differentiate between Submersion and Immersion as a cause for drowning.
- 3. List the top 2 things you should do to greatly increase your patient's outcome from drowning.
- 4. List the things a rescuer can do to maintain his/her own safety while gaining access to a patient.
- 5. List at least 3 risk factors that increase the rate of drowning.

# The Littles': Caring for neonates in the 1<sup>st</sup> hour.

Janet Taylor

NCCR: Operations, Medical, Airway

Caring for a newborn can be daunting for a new parent. But what about EMS/ER who are faced with caring for a newborn or even a preemie who really is NEWLY BORN?! In this presentation, we are going to look at the 1<sup>st</sup> hour of a baby's life. How do we do an APGAR? What if they don't "pink up" quick enough? Why do I need to put an SP02 monitor on the right foot? What if the baby's mom was a diabetic? Why is THAT important to know? All these questions will be answered and more.

### Objectives

- 1. List the five assessment findings that must be evaluated during an AGPAR scoring and at what time(s) after birth should you do this?
- 2. List the four things to achieve when stabilizing a newborn.
- 3. List at least three antepartum risks when evaluating potential problems of a newborn.
- 4. Discuss the differences in the new 2015 Meconium Guidelines and how it changes your care
- 5. Differentiate between newborn seizures and jitteriness.

# Live and Let Die...with Dignity: Handling Death and Honoring the DNR

Janet Taylor

NCCR: Operations, Medical

How many have you responded to the residence of someone who is dying and when asked about DNR paperwork, the family responds, "Oh, we've been meaning to get that done ", or "it's here somewhere".

We will review the difference between dying and actively dying, and how to honor what your patient would have wanted, maybe even if the family isn't willing.

# OBJECTIVES

- 1. Differentiate between DNR, DPA and MOLST/POLST
- 2. Define "Comfort Care" and what it means to a patient/family.
- 3. Explain the best practice for handling a situation in which a patient is actively dying and doesn't want resuscitation done but doesn't have paperwork.
- 4. Explain how to handle a situation where the family does not want to follow the patient's wishes.

# U Can't Touch This: How NOT to Screw Up a Crime Scene

Janet Taylor

# NCCR: Trauma, Operations

First Responders are often involved in treating a victim of a crime, but we were never formally taught how to help out the Crime Scene staff in gathering evidence that would help in identifying and prosecuting the assailant. Many times, as it is reported by Law Enforcement, EMS and Fire actually make their jobs a lot harder, without even realizing it. Safety is always first, patient care is second, but being able to help out other agencies while still providing patient care should be a priority also. In this session we will look at some simple things we can do to ensure evidence collection isn't compromised and how to handle evidence we come across while caring for a patient.

Objectives:

- 1. Justify why using paper bags instead of plastic for evidence collection is important when dealing with the victim of a crime.
- 2. Explain why cutting along the seams of clothing is the best method of preserving evidence on clothing.
- 3. List at least two things you should do (if possible) to ensure Chain-of-Custody isn't breached during evidence collection.
- 4. List the two things you should do when your patient has a firearm in his/her possession prior to transporting him/her.
- 5. Explain the importance of not disposing of any medical equipment /supplies used during a call without the consent of LEO.

# **Them Bones: Handling Extremity Injuries**

Janet Taylor

### NCCR: Trauma

Is it broken? What is the difference between a sprain and a strain? When are you allowed to walk on a broken leg? Which is better, a pillow splint or a flexible aluminum splint? What is compartment syndrome? When should we worry about this? This presentation will go over the bones, and joints of the human body, mechanism of injury, and splinting. We will also cover Compartment Syndrome and other post-surgical concerns of joint replacements/repair.

# OBJECTIVES

- 1. Differentiate between a sprain and a strain.
- 2. List the benefits of utilizing M.E.A.T. versus R.I.C.E
- 3. Identify the key points when assessing the effectiveness of a splint application.
- 4. List at least 2 S/S of Compartment Syndrome
- 5. Describe at least two assessment findings of a dislocated shoulder.

### <u>"Don't know nothin 'bout birthin No babies!": Pre-hospital Delivery and how to survive it</u> Janet Taylor

We review a normal pregnancy state and go right into basic delivery techniques as well as complications in childbirth including breech delivery, turtle sign with shoulder dystocia, and post-partum complications. \*Disclaimer\* Lots of pictures and videos are used in this presentation including frank pictures of the female perineum with crowning. (Medical)

### "Grandma Got Run over by a Reindeer: Geriatric Emergencies."

### Janet Taylor

With the baby-boomer generation beginning retirement and enjoying their "golden years", the healthcare industry will be seeing an influx of elderly patients in the next 10 years. What is the difference about geriatrics that we need to consider with assessment and treatment? What changes go on with the human body that makes geriatrics so different than a young adult? We will answer these questions and more by going from one body system to another addressing bone calcification, brain atrophy, kyphosis and much more. (Operations, Medical)

### Autism Interactions for First Responders

### Ryan Woodard

This two-hour course will explain what Autism is, its origins and misconceptions. Discuss the dangers and obstacles dealt with regularly. Discuss good application of this knowledge, to include how to interact going forward.

### **BELOW 100 Training Program**

#### Quapaw Nation Marshal Service

Below 100 is a free training program for law enforcement officers which aims at providing instruction that will assist in reducing the number of line-of-duty deaths to below 100, a number not achieved since 1944. Unfortunately, too many officer deaths and injuries are due to "accidents" or otherwise preventable circumstances. The program is based on the following five tenets: "Wear your seatbelt," "Wear your bulletproof vest," "Watch your speed," "What's Important Now W.I.N. – (Situational Awareness and Decision Making); and "Remember Complacency Kills." Below 100 is committed to providing the tools and resources you need to make a culture of safety thrive throughout your department.

#### Profiling Dangerous People

#### Phil Chalmers

Phil Chalmers conducts lie criminal profiling classes across the country teaching attendees how to spot dangerous people. Training topics include Causes, warning signs and triggers of today's dangerous killers, school shooting trends, school safety plan, dangerous youth culture, myths of serial killers, hundreds of crime scene photos, active shooting videos, LIVE killer interviews and crime prevention strategies.

#### Cruel intentions

#### Chief Kyle Romagus

Fires are growing and extending faster in the modern age than they ever have before. We must ensure that as a nozzleman we can think and act as an independent operator. This class is a deep dive into understanding the goals of the first engine due, how to operate independently on the nozzle, and attack the fire with cruel intentions.

### Animal Rescue

#### Kyle Arnall, NRP

Do you work with animals, or do you own a pet? Then you don't want to miss out on this very educational course. Animal Rescue is a class that will help you prepare for an emergency involving your beloved pet or canine co-worker. This class addresses common illnesses and injuries, handling, basic anatomy of animals and covers CPR techniques and treatment options for canines and felines. It also includes canine NARCAN administration first responders.

# **Cancer**

#### Christopher Way

Chief Way, through humor and humility, will describe his recent experience with a life-changing cancer diagnosis. He will describe what it is like to go from being in charge of everything to completely relying on the healthcare providers and systems that he had worked around for years. This discussion will demonstrate the importance of relationships and friendships developed over many years, as well as how important a positive attitude means while receiving care.

- Discuss how important relationships are in patient care.
- Discuss how a positive attitude impacts patient outcomes.
- Discuss how giving up control can be okay.
- Discuss how resiliency plays a part in the overall healing process.

# Leadership during a disaster

#### Christopher Way

Chief Way, through his experience at several large disasters/incidents, will discuss the importance of GOOD leadership during these events. He will also share lessons learned from five specific incidents in which he held a command role. These fifteen lessons can be applied to everyday leadership or to normal EMS/Fire/Healthcare operations.

- Discuss five different large-scale disasters and the speaker's role at each.
- Describe, in detail, lessons learned from each incident.
- Discuss how important GOOD leadership is during a critical incident.
- Discuss how clear communication is the biggest key and factor at any large disaster.

# Cardiogenic Shock: Where Are We in 2024? (1 hour)

### C. Ryan Longnecker, MD, FACC, FSCAI

This class reviews cardiogenic shock including associated issues and current ways to treat including vasopressors and mechanical circulatory support devices. Class includes case presentation for real life application.

#### Objectives:

By the end of this presentation participants will be able to answer the following questions:

- What is Cardiogenic Shock (CS)?
- Who is affected?
- What to look for?
- How to treat?

### Cardiac Arrest 360

### Stephen J. Rahm, NRP, FcEHS

Nationwide, survival from out-of-hospital cardiac arrest remains low—only about 9-10%. Yet there are agencies who consistently report survival rates as high as 45%; what are they doing? Cardiac arrest management can be divided into two phases: pre-ROSC (resuscitation) and post-ROSC (stabilization and transport). A system's approach to both phases must be deliberate, founded in science, well-orchestrated, and planned. During this session, we will explore the latest trends and science in adult and pediatric cardiac arrest management. Main discussion points include recognition of sudden cardiac arrest, public education, telecommunicator CPR (T-CPR), "high-performance" CPR, crew resource management and scene choreography, airway management, medication therapy, targeted temperature management, and recovery of the cardiac arrest survivor. In addition, we will discuss cardiac arrest data collection and reporting, as well as system performance review and improvement.

# <u>Trauma 360</u>

### Stephen J. Rahm, NRP, FcEHS

Trauma is the leading cause of death for individuals up to 45 years of age, and the fourth leading cause of death for all ages. Several causes of traumatic death are preventable, which means that prompt recognition and treatment are vital to the patient's survival. Trauma 360 is an engaging course that is consistent with current, evidence-based best practices in prehospital trauma care. It explores and reviews assessment techniques and treatment strategies for the patient with life-threatening trauma, with a specific focus on those injuries that require immediate treatment in order to prevent untimely death. Topics discussed include:

- Rapid assessment of the trauma patient
- Pathophysiology, signs and symptoms, and prehospital treatment of:
- Hemorrhage and shock
- Head and face injury
- Chest injury
- Abdominal injury
- Spinal injury
- Musculoskeletal injury
- Traumatic cardiac arrest
- Trauma Alert activation criteria
- Pain management
- Antibiotic therapy
- Tranexamic acid (TXA)
- Whole blood administration

# **Thoracic Trauma: The Emergent Truth**

# Stephen J. Rahm, NRP, FcEHS

Thoracic injuries are a common cause of untimely death; however, many of these deaths are preventable with prompt recognition and immediate treatment. Your understanding of the anatomy, as well as the lifesaving evidence that supports current interventions, is imperative. This presentation begins with a review of the "anatomic truth," using cadaveric images that distinguish mythology from reality. Complimented by videos of actual injuries and high-resolution cadaveric images, the discussion continues with common (and not so common) clinical presentations, complications, and current management options.

# Narcan and the Opioid epidemic

# Amy Mercer, PA-C and Jake White, NRP

This course is a practical approach to treating opioid overdose in first aid and hospital settings. It will provide you with a general understanding of opioids and opioid overdose, an overview of Naloxone, and its use in treating opioid overdose.

Opioid Use Disorder/Narcan Training

- 1. Brief review of the disease of Opioid Addiction
- 2. Opioid Overview and The New Fentanyl
  - a. The Opioid Family of Drugs
  - b. The New Fentanyl, Myths, Exposure Risks, Safety Precautions
- 3. The Opioid Public Health Crisis
- 4. Harm Reduction and Overdose Prevention
- 5. Recognizing and Preventing Overdose
  - a. Opioid Overdose Signs and Symptoms
  - b. What is Naloxone and Safety Considerations
  - c. How Opioids Affect the Central Nervous System
  - d. How Naloxone Stops an Overdose
  - e. Naloxone Myths and Studies
- 6. Naloxone Laws and Access
  - a. Naloxone Laws
  - b. Naloxone Access
- 7. Naloxone Administration
  - a. Naloxone Administration via various routes (intranasal, IV, IM)
  - b. What to Expect After Administration and General Naloxone Information and FAQ
- 8. Solutions
- 9. End Notes and Questions

### LPR and it's benefit to LEOs

#### Rob Ryan

This class will provide a basic introduction to the HIDTA LPR system, powered by ELSAG LPR. It includes an update of current ELSAG LPR Equipment, Basic LPR operations and an example of some Advanced query types, including Make, Type, Color, Cross Search, Convoy Search and Event Analysis. This will include several case studies on how LPR Technology can assist officers in interdiction and local policing efforts. There will also be a brief introduction to ELSAG's EOC Plus technology for electronic signal acquisition and discussion about current industry trends and best practices.

### Myths description:

### Chuck Sheppard, MD

The presentation aims to challenge and debunk various medical practices and beliefs. It covers topics like the ineffectiveness of cricoid pressure, the misconception about the benefits of oxygen for all patients, and the reconsideration of the use of epinephrine in cardiac arrest, and the futility/harm of chest compressions in cardiac arrest. The presentation provides a critical examination of these medical practices through a combination of research findings, clinical studies, and expert opinions, with a focus on developing skepticism and encouraging evidence-based medical practices.

### Prehospital pain Management

#### Chuck Sheppard, MD

Prehospital pain management discusses the importance of effective pain management in prehospital settings. It covers topics such as the physiological and psychological impacts of pain, common myths about pain treatment, and various pain management strategies, including nondrug modalities and pharmacological options. The presentation also addresses the challenges and misconceptions surrounding the use of narcotics and other pain medications in emergency care, emphasizing evidence-based practices for improving patient outcomes.

### Pediatric Minor Head Trauma

### Chuck Sheppard, MD

Peds minor head trauma focuses specifically on minor head injuries in children. It covers various aspects including the unique anatomy and physiology of children, different injury patterns, and the importance of appropriate tests and treatments. The presentation discusses developmental aspects relevant to injury mechanisms, the significance of understanding growth patterns in diagnosing trauma, and highlights the differences between pediatric and adult patients. Key topics include the Pediatric Assessment Triangle, head trauma statistics, cognitive impacts, and guidelines for using CT scans. The PowerPoint aims to equip medical professionals with the knowledge to effectively handle pediatric head trauma cases, emphasizing the need for careful evaluation and family involvement in treatment.

### **Geriatric Critical Care**

### Chuck Sheppard, MD

Geriatric Critical Care Transport focuses on the unique challenges in transporting and treating elderly patients in critical care scenarios. It emphasizes the importance of understanding the physiological changes associated with aging and how these affect medical treatments and responses. The presentation covers various aspects such as the effects of aging, common geriatric conditions, medication considerations, and ethical issues involved in geriatric care. It also discusses specific scenarios and provides guidelines for the effective and safe transport and treatment of elderly patients in emergency situations.

### Heads up CPR/Pit Crew Resuscitation

#### Tom Lewis, MD

Heads up CPR / Pit Crew resuscitation: updates and current science of resuscitation of cardiac arrest victims. This course will detail the importance of a coordinated effort with prehospital and medical personnel cardiac arrest resuscitation. Understand the benefits of "Heads Up" CPR for neurological survival and the techniques to improve outcomes. The F1 race car drivers, crew chiefs and the entire team have a specific task and priorities to achieve their goal – we are no different.

### **H-Bombs with Head Injuries**

### Tom Lewis, MD

H-Bombs with head injuries: This course will discuss important parameters to improve neurologic outcome in patients with head injuries and intracranial disease. Improve your understanding of hypotension, hypoxia and hyperventilation and how this effects the physiology of head injuries. Explore the techniques and protocols to improve outcomes with a focus on the "H-Bombs" that destroy our patients' brain.

#### New ACS Field Triage

#### Tom Lewis, MD

Trauma Updates including the updated ACS field triage guidelines: This course with review the updates American College of Surgeons and CDC trauma field triage guidelines. Understand how these new guidelines may change the transport locations of your patients. Updated ACS guidelines and the development of new trauma procedures will be discussed. The new updates will address updates in prehospital blood products, plasma, txa, finger thoracostomy and new IO sites for trauma resuscitation.

### **Dual Sequential Defib**

# Tom Lewis, MD

Dual Sequential Defibrillation: This course will cover the procedure of dual sequential defibrillation and the science behind improved resolution in patients with persistent ventricular tachycardia. Recent research and physiology of persistent ventricular tachycardia will be covered. Protocol development and case studies will be discussed with this new and immerging technique in cardiac resuscitation.

# Pediatric Emergencies

# David Seastrom

- Differentiate between such heat illness as cramps, exhaustion, and stroke.
- Discuss signs of abuse in the pediatric patient
- Describe the management of patients with meningitis.

This course will cover many pediatric medical emergencies including their signs and symptoms, management, and possible complications. Topics in this lecture include heat emergencies, cold emergencies, gastroenteritis, appendicitis, hemophilia, abuse, burns seizures, meningitis, DIC, septic shock, MODS, croup, epiglottitis, asthma, SIDS, cardiopulmonary arrest, and snake bites. This is sure to enhance the knowledge of the basic provider and reinforcement of the more advanced.

### Pediatric Trauma Resuscitation: Fluid, Blood, & Prayers oh my!

### David Seastrom

- Discuss the pathophysiology of different types of shock.
- Assess a pediatric trauma victim for signs of circulatory compromise.
- Identify conditions that cause rapid cardiopulmonary deterioration in pediatric trauma patients.
- Monitor the adequacy of your resuscitation.

This lecture emphasizes the importance of a thorough resuscitation for pediatric trauma patients. It will cover the most evidence-based literature and current practices. Though research in pediatric resuscitation is less than robust there is some that translate from the adult world. We will also take a dive into the physiology of shock in children, its manifestations, symptoms, and clinical management.

# Pediatric Trauma: the hurts bad.

David Seastrom

- Review the diagnostic approach to the pediatric trauma patient.
- Discuss differences between adult and pediatric trauma patients.
- Discuss trends in pediatric airway management, transport & overall care.

This lecture reinforces and strengthens the healthcare providers' knowledge of Pediatric Trauma. The lecture will cover a variety of topics including the differing etiology in pediatric trauma, the anatomical & physiological differences between adults from children, and the current treatments and trends in airway management, stabilization & transport, and overall management.

# Stupid Kid Tricks

# David Seastrom

- Describe the effects of drug use/overdose in the pediatric population.
- Discuss the importance of a thorough evaluation of the pediatric trauma patient to minimize life-threatening occult injuries.
- Describe unconventional treatments for children with uncommon injuries.

This lecture focuses on three of the common mechanisms of injury for the pediatric trauma population: Pills, Spills, & Thrills. The pills section covers the basics of pediatric overdoses with helpful insight of what to look for and works in some comic relief by some great amusing pictures. The spills topic covers some of the most common injuries in children sustained by falls and their treatments and the reminder to never underestimate the occult injury. Lastly is the thrills section where we see pediatric trauma at its worst from lawnmower incidents, life threatening dog bites and major burn patients.

# Concussions: A wolf in Sheep's Clothing

# David Seastrom

- Review current assessment guidelines for patients who have sustained a concussion.
- Identify management priorities for the pediatric patient who has sustained a concussion.
- Identify long-term effects from concussions.

This lecture focuses on emerging research and literature concerning concussions. The lecture focuses on the pathophysiology surrounding concussions and the body's healing process. Major topics of secondary impact syndrome and repetitive concussive syndrome are also discussed. Realization of the risk factors for sustaining a concussion such as age, sex, previous medical history will be discussed. This lecture is perfect for any healthcare provider providing care to children at risk of sustaining a concussion.

# Rural Trauma: You're Still in Kansas Toto!

David Seastrom

- Discuss the differences in mortality between urban and rural environments.
- List barriers to rural trauma care.
- Understand why a trauma system is the best intervention for a rural trauma victim.

This lecture will cover some of the barriers to trauma care in general with a specific focus on the rural environment. The listener will learn why rural trauma carries a higher mortality rate and what they can do to decrease that. Common misconceptions regarding EMTALA and the transfer process will also be discussed.

# Child Abuse: The Dark Side of Pediatrics

David Seastrom

- Describe injury patterns consistent with non-accidental trauma.
- Describe risk factors that are common in children and who are victims of non-accidental trauma.
- List injuries that are highly suggestive of non-accidental trauma.

Child abuse kills nearly 1600 children every year regardless of race, age, sex, and geographical location. This lecture will heighten the awareness of providers at every level and guide them through the understanding of how children are abused, common injury patterns to look for, and risk factors that predispose children. A tough topic for most, but a valuable amount of information via slides, videos, and pictures is sure to keep your interest.

# Forgotten Partners: Integration of EMS in Maternal Mortality Reduction

### Heather Scruton

Often overlooked by multidisciplinary teams focused on improving maternal outcomes, frontline EMS clinicians may be the first, or last, healthcare workers vulnerable pregnant patients encounter. Postnatal complications are rarely included in annual mandatory obstetric education hours for EMTs and paramedics. This program describes the challenges and successes of statewide EMS outreach in this missed specialty.

The maternal mortality rate in the United States, already the highest of any industrialized nation, has continued to rise despite concerted multidisciplinary efforts to improve outcomes in this vulnerable population. Maternal complications can easily be overlooked by experienced clinicians due to compensatory shifts in cardiovascular physiology. Maternal Mortality Review Committees (MMRCs) across the nation are reporting up to 3/4 of maternal deaths had at least one interaction with emergency medicine during the pre- and postnatal periods. As maternal fetal transport programs are created in response to this national crisis, there remains a critical need to provide expanded education on maternal physiology, obstetric emergency intervention, and the role unconscious bias plays in obstetric deaths to the frontline clinicians who encounter these patients in a multitude of settings.

### **Objectives:**

- 1. Evaluate emerging data from statewide Maternal Mortality Review Committees in regard to EMS involvement in care.
- 2. Describe three strategies to engage local EMS agencies in maternal mortality reduction efforts.
- 3. Recent presentations:
- 4. "We Don't Do That Here: Management of the pregnant and postpartum patient in the field to the ED", Board of Emergency Nurses Annual Convention, Dallas, TX, 2023, audience 500
- 5. "We Don't Do That Here: Management of the pregnant and postpartum patient in the field to the ED", Kansas EMS Annual Convention, Mulvane, KS 2021, audience 250
- 6. "Obstetric Emergency Intervention for the EMS Provider", National Association of State EMS Officials Annual Conference, 2020, audience 200

### Surgical Extraction Teams

Field Amputation Surgical Teams: The Evolution of Rural Trauma Response in the 21st Century

This presentation will provide a brief overview of the evolution of the Surgical Extraction Teams from the inception through today. It will review activation processes, outreach efforts and campaigns, as well as provide attendees with a firsthand account of the Millcreek Marietta Quarry Activation.