

A list of objectives is available for each session upon request. NCCP Categories are listed in red according to the April 1, 2017 NCCP revision. All topics can be shortened to 30 minutes in order to better fit your needs with filling NCCP model guidelines. Newer topics are at the top of the list and are dated according to release date.

### **New Releases 2024:**

#### **Industrial Revolution: Traumatic injuries specific to Industrial Settings.**

Responding to a trauma in an industrial setting can be challenging just with the different settings possible in your service area. Welding shops, paint shops, farms/ranches, auto mechanics, and construction sites are just a few examples of what we can respond to. While general trauma care is still utilized, we need to understand specifics with industrial settings. In this presentation, we will address some of the specific injuries we would see in industrial settings. We will go over chemical exposures and decontamination, ocular injuries, high pressure injection injuries, degloving, impaled objects, burns and Harness/Suspension syndrome to name a few. (Trauma, Operations)

#### **Once Upon A Time: How the pandemic affected my Career...For the Better**

How many people, who are still in health care AFTER working during the pandemic can say their career is better than ever? We don't imagine there are very many. But Janet has a unique perspective about the different effects of the pandemic had on her during this time and the importance of good mental health, attitude, and resilience she learned while going through a dark time in her career.

## **Main Squeeze: Choosing Vasopressors**

What is the best choice of vasopressor for your patient when you have more than one to choose from? Which one will cause an increase in myocardial oxygen demand? All of them?! How can I help my patient without doing additional harm? This presentation will address the most common vasopressors in EMS, and which one(s) are the lesser evils for your patient. *(Medical, Cardiovascular)*

## **New Releases 2023:**

### **Live and Let Die.... with Dignity: Handling death and honoring DNRs’.**

How many times 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. *(Medical, Operations)*

### **Them Bones: Handling Extremity Injuries**

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. *(Trauma, Medical)*

### **Clue Me In: Using Critical Thinking Skills to Answer Questions about Your Patient.**

Sometimes your patient can’t or won’t tell you what is wrong. Maybe they are a poor historian, unresponsive or just not understanding your need for information to complete a SAMPLE history. But what about the things around them? It is not uncommon to find clues on or around your patient to help clue you in to what is going on. This presentation will help you focus on the scene around you and to help you make sense of certain medications, items, and behaviors to help clue you in. *(Operations, Medical)*

## **There's Something in the Water: Drowning**

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".  
*(Airway/Resp/Ventilation, Medical, Trauma)*

## **Take My Breath Away: Ventilator Management**

Good ventilator management can make a difference on a patient based on your critical thinking skills and vent settings. Every vent is basically the same, but some have more bells and whistles than others. The main goal is to mimic the patient's own respiratory function for his/her condition to improve ventilation and perfusion and decrease ICU/ventilator days. Why would you want to increase the minute volume on an acidic patient? Why doesn't an increase in FI02 always improve Sp02? Based on which version you chose for your participants will decide on how in depth we can get with vent management. Many of the major brands of vents will be represented here so we can see just how "easy" it can be. ☺  
*(Airway/Resp/Ventilation)*

## **New Releases 2022:**

### **Special Delivery: Post-Partum Care in the 1<sup>st</sup> Hour**

We've all had to take the obligatory childbirth class but what happens in the hour following delivery? What should we expect? The number of elective home births has surged since the beginning of the pandemic, and it doesn't show signs of slowing down. What should mom and baby be doing? Can mom get up and shower? What if the placenta doesn't deliver when it should? When SHOULD a placenta delivery occur? *(Medical)*

## New Releases 2021:

### **The Right Stuff: Critical Thinking Application ALS version (1 hour)**

Being able to apply critical care knowledge to actual cases will help reinforce your knowledge and help “work out the kinks” of critical thinking and differential diagnosis. In this presentation, you will see actual case studies of patients, some with a lot of detail and some with very little detail for you to go on. From this, you must decide what is wrong with the patient, and what YOU need to do to improve the patient’s outcome. \*\* Keep in mind this is an ALS version. There is a critical care version listed below. *(Cardiovascular, Medical)*

### **The Final Cut: Amputations (1 hour)**

While being faced with doing a field amputation is considered rare, caring for a patient who has already cut off a limb in an accident is common and most of us have a couple of these types of calls under our belt already. We will review ALL aspects of an amputation including mechanism of injury, recovering a limb, partial versus complete amputations, and what criteria is considered IF you were, in fact, faced with the possibility of doing the amputation yourself. *(Trauma, Operations)*

### **Short Circuit: Seizures (1 hour)**

Seizure Disorders are more common than you think. At least 10% of the world population has had a seizure at least once in their lifetime. Many times, you can be in the presence of someone having an active seizure and not even realize it. In Hollywood, seizures are depicted as being someone foaming at the mouth and thrashing around for what seems like hours, but that really isn’t an accurate portrayal of what is going on. In this presentation, we will look at the new guidelines for categorizing a seizure, define Pseudo seizure versus “pseudo-seizure” (yes, there IS a difference) and determine which one seizure state is considered a true emergency and why. *(Medical)*

## **Time is Brain: Stroke Assessment and Treatment Guidelines (1 hour)**

Based on the 2020 AHA guidelines for CVA recognition and treatment, we will review the different types of strokes as well as the different assessments you will find based on what portion of the brain a stroke is effecting. Assessment, recognition and timely decision making as to where we will transport a patient for intervention is discussed.

*(Cardiovascular)*

## **New Releases 2020**

### **U Can't Touch This: How NOT to screw up evidence collection at a crime scene (1 hour).**

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 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 when Law Enforcement isn't nearby.

*(Operations, Trauma)*

### **How Low Can You Go? : Emergency Severity Index in the ER\* (1-3 hours)**

The content in this presentation is designed for those who work in the ER. While it isn't designed for the type of triage EMS/Fire does on scene, the content does cover a brief overview of medical and traumatic conditions and why they are triaged differently. *(Operations)*

## **Every Beat of the Heart: Basic Cardiology**

(3 hours). This is *very basic cardiology* designed for new nurses. We start with what P waves and QRS complexes represent and finish with 12 and 15 lead EKGs. (*Cardiovascular*)

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

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. (*Operations, Medical, Airway*)

## **Under Pressure: Hemodynamic Monitoring**

Swan Ganz, Art Lines and CVP monitors aren't commonly seen in EMS transport but when doing critical care, it is expected that we know what to do and how to interpret the numbers to ensure quality patient care.

In this presentation, we will go over the parameters of each item, including having hands-on sessions with actual Swan Ganz catheters, Art Lines, and CVP monitors to help you get an understanding of how to maintain the equipment and use the data for patient care. (*Medical, Cardiovascular*)

## **Don't Let me Down: Balloon Pump: Intra-Aortic Balloon Pump Transport.**

Caring for a balloon pump patient can be daunting especially when you are doing a transport and don't have an entire ICU team at your side to help. And while IABP patients are critical and need the hemodynamic support, most IABP consoles are automatic and will take care of itself while you take care of your patient. In this presentation, we will go over indications for utilizing this intervention in addition to being able to practice with an actual balloon pump catheter, see its size, troubleshoot what happens when you have a leak and what to do if your console quits working while in transport. By the end of this lecture, our goal is to make you much more comfortable with a balloon pump patient and you will find the hardest thing that you have to do it get it secured in your ambulance/helicopter! **(Medical, Cardiovascular, Operations)**

## **What to Expect when you're Expecting: High Risk OB Transport (1 – 1.5-hour versions)**

Who doesn't LOVE a high-risk obstetric transport? 😊 No? Not surprising since they aren't a common call for most of us but yet we are expected to care for these patients as if we do it every day. We will review a pregnancy and delivery complications and how to do basic fetal monitoring in the field as well as recognize what that pile of fetal monitoring strips the sending OB nurse gives you are saying. Early decels, late decels, variability, VEAL CHOPS, HELLP Syndrome, and Hypertensive states in pregnancy will all be discussed as well as much more. **(Medical)**

## **New Releases 2019.**

### **History's Mysteries: Interesting Ways Famous People Have Died (1 hour)**

Did you know that George Washington died of a sore throat? Or that John Ritter died of an Aortic Dissection? What about Christopher Reeve? Didn't he die in a horseback related accident? No? In this presentation we will re-visit some famous and historical figures and evaluate their cause of death and some possible solutions that may (or may not) have helped save their lives. This is all about assessment and resources available and recognizing potential life threats.

**(Airway/Ventilation, Cardiovascular, Operations, Medical, Trauma)**

### **An Extraordinary Mind: Mental Illness Review (1 hour and 1.5-hour versions)**

Why doesn't a person with depression just take his/her medications to feel better? Why can't the person with paranoia just ignore the voices, don't they just "turn off"? What is Catatonia and what can we do to treat it? How do you interact with someone who has schizophrenia? What does it mean when someone cuts themselves to, "feel the pain on the outside"? We don't get enough training to adequately handle our patients who have psychiatric disturbances, and this certainly isn't going to make you an expert on the subject but understanding the basics to mental health problems and the stigma that goes along with it may make us better providers and better develop a rapport with our patients and their support system so they can get the help they need. **(Medical)**



## **The Right Stuff: Critical Thinking Application Critical Care version (1 hour)**

Going through the courses and memorizing the parameters in labs and hemodynamics just aren't enough. Being able to apply this knowledge to actual cases will help reinforce your knowledge and help "work out the kinks" of critical thinking and application. In this presentation, you will see actual case studies of patients, some with a lot of detail and some with very little detail for you to go on. From this, you must decide what is wrong with the patient, what the medical team did right or wrong and what YOU need to do to improve the patient's outcome. Lab results, hemodynamics, misdiagnosis, shock states and ABGs' with vent settings adjustments are reviewed. \*\* Keep in mind this is a critical care version involving hemodynamics. There is an ALS version listed above. (Cardiovascular, Medical)

## **Updated Releases 2018**

### **"Sort them Out": S-A-L-T Triage in an MCI (1 hour)**

In 2011, SALT triage became a nationally recognized system for sorting through an event with multiple victims and limited resources. We will go over the "sorting" process and why it works so well. At the end of the session, we will put this process to the test and practice the SALT triage system in the classroom.

(Operations)

### **All Bleeding Stops...Eventually: Bleeding Control (1 hour)**

Stop The Bleed is a National Awareness Campaign launched in October of 2015 by the White House in order to train and equip bystanders with what they need to do in order to stop or significantly slow the bleed enough to potentially save a person's life. This presentation goes a step further and explores the different types of hemostatic agents, tourniquets and Tranexamic Acid (TXA). Which tourniquets work the best? Which hemostatic agent is most recommended by the U.S. Military? (Trauma)

## **A Change of Heart: CHF (1 hour)**

Congestive Heart Failure is a complicated condition that is a cardiac AND a respiratory condition. Depending on the severity, patients who have this condition can be so severely disabled from a weak heart that they can no longer walk across a room without extreme shortness of breath and fatigue. These patients require a LOT of care and intervention. But what happens when a normally well “controlled” CHF patient goes into exacerbation? What are some things that are proven to work and work quickly? How aggressive do we need to be with our patient’s? Can we treat them using BLS level interventions? (answer: YES) In this presentation we look into the day-to-day lifestyle of someone who has moderate to severe CHF. There is a LOT more to this condition than what most EMS/ER healthcare providers realize. (Cardiovascular)

## **Show-Me Some Mo! : Creative and Kinesthetic Ideas in the Classroom (*Pre-Con Instructor Workshop*).**

(4- or 6-hour sessions available)

Lori Sizer and Janet Taylor work together in creating a fast-paced class for instructors who need to increase the energy level in the same old topics. All kinesthetic, all the time. Using cucumbers and salt to describe osmosis and diffusion.

Strawberries and Sugar to describe diuresis in a hyperglycemic patient, shaving cream, baking soda, balloons, and much more!

All on a shoestring budget!

This presentation is based on the availability of both instructors’ schedules as well as availability of a Dollar Tree nearby.

Maximum class size is 50 students. Additional \$200 for cost of supplies. If no Dollar Tree (or similar store) is available, we can arrange to purchase and ship the classroom materials to the venue.

## **"Pour Some Sugar on Me" : Diabetic Emergencies (1 hour)**

In addition to reviewing basic diabetes, different medications and complications and go into depth with hypoglycemia and each of the hyperglycemic states. We will also differentiate between Diabetic Keto-Acidosis (DKA) and Hyperosmolar Hyperglycemic State (HHS) and the treatment options for each as well as review some of the new medications that have been released to help diabetics better control their blood sugar. (Medical)

## **"Don't know nothin 'bout birthin No babies!" : Pre-hospital Delivery and how to survive it (1 hour)**

We review a normal pregnancy state and go right in to 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)

## **She's Having a Baby!: Pregnancy Complications (1 hour)**

This course looks at pregnancy from the very start. Miscarriage, tubal pregnancy, gestational diabetes, pre-term labor, incompetent cervix and more!. Great for fulfilling the core content for paramedic refresher transition courses. (This course can also be used as a "Part One" in that it does not address childbirth. See, "Don't Know Nothin 'bout birthin' no babies!" for the popular childbirth lecture.) (Medical)

## **"First Blood": Blood Transfusions in EMS (1 hour)**

We learn the indications of requiring a blood transfusion and why certain types of blood react with others and why O- is referred to as the "Universal Donor". What do you do when a patient goes into a transfusion reaction? Do you even know what to look for in a reaction? What do you carry on the ambulance that can be given to lessen the effects of a reaction? (Medical)

## **"Thoracic Park" : Chest Tubes in EMS transport ( 1 hour)**

This session reviews why chest tubes are indicated and how they work. We will practice assessment, troubleshooting, and maintenance of a chest tube set up while in transport. On hand, I offer different chest tubes, the chest drainage systems, and various items found on an average ambulance that can be used for troubleshooting. (Medical, Airway, Respiration & Ventilation, Trauma)

## **"Going Mainstream" : Handling Central Lines (1 hour)**

The basics in dealing with central lines and keeping them patent during transport. We discuss maintaining infusions, flushing central lines, troubleshooting and what emergency procedure you need to do in case a line becomes dislodged or pulled out completely.

## **"To Pee or Not to Pee": Renal Failure and Dialysis in EMS (1 hour)**

We see so many patients who have multiple chronic illnesses and even those who are compliant with their lifestyle will still develop complications. We will review the different types of dialysis, what a dialysis patient must go through on a daily basis and the high maintenance each type of dialysis requires. We will also review what things EMS personnel are liable to find when responding to a patient who happens to have renal failure or is on dialysis despite what the reason for calling EMS was. (Medical)

## **"Every breath you take": The most common respiratory diagnoses (1 hour)**

We will review the most common respiratory diagnoses found in EMS and the differences between the way the symptoms present in EMS and the treatment options. Included in the list of diagnoses are COPD, Asthma, CHF, Pneumonia, and ARDS.

(Airway/Respiration/Ventilation)

## **"Just the Basics": Pharmacology for the EMT (1 hour)**

Often used as a Continuing Education module, this class reviews the medications that an EMT is able to give without ALS assistance. We review the indications, contraindications, side effects, and little-known trivia about SL Nitro, Charcoal, Epi-Pen, Oxygen, Oral Glucose Gel, and aspirin and Albuterol. Did you know? The same activated charcoal used for overdoses is also great for removing odor from cat litter. And it works the same way in your gut! **(Medical)**

## **All Jacked Up! : Endocrine Emergencies (1 hour)**

We see endocrine emergencies more often than we realize, not counting Diabetic Emergencies. From Myxedema Coma and Thyroid Storm to Adrenal Crisis, we learn the different presentations of each emergency and the treatments for each. *Please Note: Although diabetes is an endocrine disorder, it is covered in a separate presentation entitled, "Pour Some Sugar On Me: Diabetic Emergencies".* **(Medical)**

## **Toxic Avenger: Sepsis in EMS (1 hour)**

Sepsis is the hot topic with one person dying every 3.5 seconds somewhere in the world. The International Sepsis Campaign has developed guidelines for improving patient outcomes including interventions that can be started in the field. In this presentation we will develop a better understanding of sepsis and how it is more than "just an infection" **(Medical)**

## **"Heart Breaker": Acute Coronary Syndromes and the Cath Lab (1 hour)**

We go on so many calls where, "chest pain" is the complaint. What happens that causes chest pain? What is the reason why Nitroglycerin works as well as it does but we have to be careful when administering it to someone who we suspect is having an Inferior MI? What happens when someone earns a trip to the cath lab and what really is the difference between a balloon and a stent? Why does Retavase work better than Heparin in an MI? We will see video clips of actual angioplasties and stent applications, restored blood flow and EKGs of the before and after intervention. **(Cardiovascular)**

## **"I've Got a Crush on You" : Dealing with Crush Injuries in EMS. (1 hour)**

Why isn't the systemic effect of crushing your hand the same as crushing your leg? What happens that makes crush injuries distinctive from other trauma injuries? In this session, we will go over crush injuries from start to finish. What happens at the moment a heavy weight hits the body and what we need to do before that weight comes off. We will review some common medications in EMS that we need to have available in order to improve your patient's outcome and why they should be given. **(Trauma, Medical)**

## **"Killer Bees": Anaphylaxis in EMS (1 hour)**

What is the difference between a side effect, an allergy and anaphylaxis? What do you do when a patient says he/she is allergic to epinephrine? Why do so many people have allergies to Aspirin? And why is it that someone who is allergic to peanuts can eat French fries fried in peanut oil? In this session, we will review what happens in the body when it is exposed to an allergen and what we need to assess for to determine whether this is a side effect, an allergy or a true allergic reaction. **(Airway/Respiration/Ventilation, Medical)**

## **"It's All in Your Head": Neuro Assessment for Non-neuro folks (1 hour)**

This session is geared toward EMS assessment and care of the neurological insults to the brain whether traumatic or non-traumatic. We review the basic normal neurological assessment and go on to learn what small assessment changes can occur and how to recognize those changes. We learn common non-invasive interventions we can do in the field to reduce the intracranial pressure on any patient with neurological insult and the importance of frequent re-assessments when you have someone who has suffered a potential brain injury. **(Trauma, Medical)**

## **“Free Food!” : Becoming an EMS Conference Speaker and How to Get Noticed. (1 hour)**

Have you ever listened in on a lecture and thought to yourself, “I think I could explain that a lot better than this person”? There are so many great speakers and educators out there who want a chance at speaking at a conference and getting noticed. Whether you are just thinking about becoming a speaker or you are already a speaker but want to move forward with your material, this presentation is all inclusive.

What is a Speakers Bureau Packet or an Elevator Speech?

How much does an average speaker make?

What kinds of things do conference planners look for?

What can I do to get noticed and what do audience members really like in a speaker?

What kind of equipment do I need to have?

What kinds of topics are in big demand and are likely to get picked by conference planners?

Why do conference planners need objectives and what is Bloom’s Taxonomy?

All of this and so much more! Lots of information and insights from both national conference speakers and conference planners.



## **“Frozen: The Cold Hard Truth about Hypothermia in Trauma” (1 hour)**

We take a look at the negative effects of hypothermia specifically in the trauma patient. From vasoconstriction to cold diuresis and the trauma triad of death, we will look at ways of preventing hypothermia and the detrimental effects it has on the body. **(Trauma, Medical)**

## **Man Vs Wild: Environmental Emergencies for the EMT (1-1.5 hour versions available)**

Lions, Tigers and Bears... wait... Okay maybe not wildlife but there are several things that are necessary to know in order to treat patients who have decided to “rough it” in the outdoors. Rather than discuss advanced interventions, we are going back to the basics and using common sense knowledge to treat a variety of environment emergencies including hypothermia, hyperthermia, diving emergencies, snake bites, lightening, drowning, and much much more. **(Trauma, Operations)**

## **Dirty Dozen: Infection Control in EMS (1 hour)**

This is more than just, “Wash your Hands and Wipe Down Your Equipment!” this presentation addresses the most common infections we encounter as well as the different isolations and how we can safely transport an isolation patient and what we need to have ready to make the transport. C. Diff, MRSA, VRE, Ebola and Normal Flora and much more including some interesting trivia. **(Operations, Medical)**



## **“Grandma Got Run over by a Reindeer: Geriatric Emergencies” (1 hour)**

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 different 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)**

## **“Waiting to Exhale: Capnography” (1 hour)**

The American Heart Association has deemed Capnography the gold standard for many years in assessing circulatory status and confirming ETT placement. But we aren't just applying it to assessing the severity of a respiratory distress any longer; we use it for post anesthesia, assessing the efficiency of compressions during CPR, monitor patients on magnesium drips, and many more applications. This presentation goes through how ETCO<sub>2</sub> is created, exhaled and a step-by-step method for analyzing waveforms and assessing the respiratory and circulatory status of your patient. **(Airway, Respiration & Ventilation, Cardiovascular)**

## **No O<sub>2</sub> for You! : Using Too Much of a Good Thing (1 hour)**

30 years ago it was thought that if a little oxygen is good for you, then a lot must be even better. And that was the case until studies proved that too much of a good thing really isn't the best for our patients. Oxygen titration is now recommended in many nationally recognized programs such as ACLS, NRP, PALS and more. But why can't we give some extra oxygen to our patients? What bad could really happen if we continue to do what we have been doing for 30 years?

**(Airway, Respiration & Ventilation)**

## **Lil' Rascals: Respiratory Distress (1 hour)**

Lil' Rascals looks at Airway and respiratory from a pediatric view. Starting at respiratory distress and looking at ventilation (BLS and ALS application) asthma, croup, RSV, pertussis, and more and working our way to Airway issues and indications for intubation and how to prep for a pediatric intubation as well as tricks to make the intubation process go more smoothly. We discuss “obligate nose breathers” and how kids breathe when they CAN'T breathe through their nose (Airway, Respiratory & Ventilation, Medical)

## **Caring for Special People: Unique Situations in EMS (1 hour)**

Fortunately for most patients with special needs, they and their caregivers are very knowledgeable on how to care for their special need(s). **Unfortunately**, it is when they have tried everything that they were taught, and it still doesn't work that they call 9-1-1. It can be daunting to walk in and find a patient with equipment you aren't familiar with or have a condition that you may or may not have learned about in paramedic or nursing school. We will go over the most common situations that instill fear in those who respond to a patient with a special need. We will go over and handle actual tracheostomy equipment, feeding tubes, Cerebral/Ventral Shunts, dialysis catheters, central lines and review the most common reasons for calling 9-1-1 in each of the special needs' situation. *This class is 75% clinical in nature as we talk about and apply hands-on to actual medical equipment such as tracheostomy tubes, G-tubes and Gastric Buttons. This works better in a smaller setting (less than 50 people) as there are a lot of hands-on applications.* (Medical, Operations)

## **Pump Up the Volume: Ventricular Assist Devices in EMS (1 hour)**

Ventricular Assist Devices (VAD) are becoming more common with improvement in technology and affordability. Knowing what type of VAD a patient has as well as the assessing heart tones, blood pressure and how to read the controls on the device will help you give the best care possible to your patient. We will review all the major brands and go over why a patient needs a VAD in the first place as well as common complications and what to do when they have a VAD related problem.

**(Cardiovascular, Operations)**