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# LIVE VIRTUAL INTERACTIVE TRAINING

Help you become more comfortable and confident using the 12-lead and the critical thinking for STEMI activation.

Provide a simplified approach that helps maximize appropriate cath lab activation and, simultaneously, reduces STEMI overcall.

## LIST OF TOPICS

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Tim has provided ECG education to over 100,000 healthcare providers in more than a dozen countries. He has authored several ECG textbooks, and presented at scores of conferences including EMS Today, EMS World, ENA and NTI. Tim is known for his ability to take complex topics and make them easy to understand.

[CONTACT TIM](#)



## Getting a Clear and Accurate 12-lead ECG in the Real World.

It is indeed possible to get a clear and accurate ECG in the real world. Perhaps more likely than you think! Simple, quick tricks can often make a big difference. This session explores common issues, answers frequently asked questions, and provides solutions. Topics include: Correct electrode placement for limb and chest leads, electrode placement for female patients, why the 12-lead is more sensitive to artifact, when your monitor is and isn't trying to reproduce the ST segment correctly, important aspects of when to get a 12-lead and even tips for diaphoretic patients.



## The Essentials of STEMI recognition

Determining which 12-lead ECGs meet the ST elevation criteria is easy, right? Yes, it is usually easy, but sometimes it is a case of we don't know what we don't know! Most of us were never given a specific approach or process to make this decision. That is exactly the goal for this session. This session provides a consistent approach for your whole team to use when determining if a 12-lead ECG meets the ST elevation criteria for STEMI. Topics include: What is the right way to find ST elevation? Which leads are anatomically contiguous? How much ST elevation is required in V2 and V3 versus other leads?



## Managing the STEMI Impostors Part I

Non-ischemic causes of ST elevation are very common, perhaps more common than STEMI! To make matters worse, there are over 20 STEMI impostors out there. How to decide if the ST on 12-lead is from STEMI or a STEMI impostor? This session takes a practical approach to decision-making. We provide a simple and rapid approach to rule out the most common STEMI impostors and, by doing so, making the case of ST elevation more likely to be from STEMI.

## Managing the STEMI Impostors Part II

What to do if a STEMI impostor is present along with ST elevation? This session explores the question. While it is not always possible to know with certainty, some strategies can be used to suspect STEMI, even in the presence of an impostor. We start with some simple ones that work for all STEMI impostors and progress to some more specific strategies such as the Sgarbossa criteria for LBBB.

## Activation without ST Elevation: The STEMI Equivalents

ST elevation is the "typical" indication for Cath lab activation. However, some of our patients that would benefit from immediate reperfusion do not have any ST elevation on their 12-lead ECG. That makes them a STEMI equivalent. How would you recognize a STEMI equivalent? The STEMI impostors explored in this session are Wellens Syndrome, DeWinter T waves, and an ECG pattern seen in left main or multi-vessel occlusions.

## 15-18 lead ECGs

As good as the 12-lead is, it has two blind spots: The right ventricle and the posterior wall of the left ventricle. Each is important, just for different reasons. This session explores how to increase STEMI recognition by obtaining posterior leads and how to better manage complications of STEMI through information gained from the right-sided leads.



## AV Block in STEMI

The 12-lead not only helps us to suspect STEMI, but it can also help us to better manage the complication arising from the STEMI. One example is AV block management. There is way more to it than the degree of AV block! This session looks at how to use the 12-lead to better identify the severity of AV block (not only degree), the location (nodal versus infranodal), which are more stable which are less stable and which are more likely to respond to atropine and which will probably require external pacing.

## 12-leads for EMTs

With STEMI, time is muscle. While EMTs are not expected to interpret the 12-lead they have the potential to save significant time to reperfusion! That's why more systems are utilizing BLS providers to obtain and transmit a 12-lead ECG. This session conveys what an EMT needs to know about STEMI and the BLS 12-lead ECG. Topics include: Why the 12-lead is so important, who gets a 12-lead, when to get the 12-lead, how many 12-lead to get, and how to obtain a clear and accurate 12-lead ECG.

## Capnography: The Essentials

This session looks to provide a solid foundation for everyone using capnography. We explore both the ETCO<sub>2</sub> number and the waveform, the three primary influences on capnography, the four basic waveform patterns, as well as uses in the intubated/ventilated patient.



## Capnography: Beyond the Basics

Capnography has been around in the prehospital environment for over 20 years. However, we may not be taking advantage of all of its uses. This session picks up where the previous one leaves off and looks at ways the information from the capnogram can influence our treatment. Covered in this session are topics such as: Bronchospasm, early suspicion of impending shock, sepsis, hypoventilation, pulmonary embolism, and others.