

How Long Do YOU Stay “On Scene?”

How long do you stay on scene? The emphasis in the title is on YOU. This information here is for YOU, the First Responder, EMT, Paramedic, and yes even the Flight Crew. Is there a right or wrong answer?

If you have ever had one of your EMS runs reviewed at a company meeting, and your Service Director points out that the “staff members” on call number 098735, (whom everyone knows is YOU), stayed on scene 32 minutes longer than the Standard Operating Guidelines state was the appropriate time for that type of call, and that the time on scene could have been avoided with a little pre-planning on your part. Of course no names are mentioned to protect confidentiality, but everyone knows it was YOU, because they have been talking about it for the past 22 days. They all want to know why your crew was sitting on scene for 42 minutes, with a critical trauma patient, when the hospital was only 10 minutes away, yet no one has approached you to ask why, not even your boss. You weren’t questioned that day, and the hospital you transported to did not mention anything about your scene time. Now, you show up for the meeting that you are required to come to, just to get ripped apart for “doing your job”. If something similar to this has not happened to you, it is probably just a matter of time.

Scene time is an issue that has changed over the years. When EMS was not even called EMS, a fast ride to the hospital was what was needed to make a difference. As Pre-Hospital care changed, more skills and treatment modalities were added to everyone’s list of “things to do”. We stayed and performed more advanced life support skills on scene because that is what we were trained to do. The trend then turned to rapid assessment, rapid treatment, and rapid transport. The trend once again came to spending more time on scene and initiating more treatment modalities. So what is right and what is wrong, or is it that simple?

In the rural setting, transport times can vary from 10 to 40 minutes, and even longer in remote areas. Comparably, in more urban areas, transport times can range from the same 40 minutes in congested areas, down to 30 seconds if you are right across from the hospital. Instead of seeing both of these situations as complications, why not use time to your advantage.

Since this article is for Rural EMS, we will focus only on those issues, in other words, the long transport times.

For comparison use, I will site one scenario for urban use. A vehicle was traveling at a high rate of speed and lost control in an urban area. High speed motor vehicle crashes are not commonly scene in urban residential areas, but it does happen. The vehicle lost control for approximately one city block and struck a tree. The two occupants were critically injured. The MVC occurred 9 blocks from a Level 3 hospital. Air Medical Services were not available locally, just as in most rural areas. In the ideal situation, the hospital would be notified that you are out, and what was found on scene. On scene time was less than 8 minutes, transport time of less than 2 minutes, giving the hospital a total of 10 minutes to prepare for a Level One Trauma, which would have to be eventually transferred to a Level One Trauma Center.

Many of the EMS calls in the rural setting can take 10 or more minutes to arrive on scene. Transport times are never 2 minutes; in fact 15 to 20 minute transport times are very common, even under ideal conditions.

So let's take the same scenario, high speed MVC, critical patient, no local Air Transport, Level 3 Hospital. Patient care remains the same. Extricate, C-spine, advanced airway control, manage life threatening injuries, initiate IV therapy, and transport. We all know that scene time on major traumas should be 10 minutes or less when conditions are optimal. Even with extrication, 10 minutes or less should be your goal. Treatment should be continued enroute instead of all of it being done on scene. These cases are clear. What about the cases that are not so clear, and why are many Ambulance Services delaying transport to Emergency Departments?

Trauma cases reflect only a small percentage of the Ambulance runs that we respond to. What about the cardiac patients, diabetic complications, cerebral vascular accidents, abdominal pain, OB emergencies, and respiratory distress calls to name a few. People who call for an ambulance, whether it is an emergency or a non-emergency have called YOU because they need to go to a hospital. Either they may have no other means of transport, or they need your assistance because it would be too dangerous to get to the ED without treatment for their medical or trauma related problem.

There are several constants that cannot be changed. Travel time to a scene, even in an Emergency mode, cannot be changed much if the normal is 12 to 15 minutes. Travel time to an Emergency Department, is usually consistent with the distance traveled. Initial response time is a variable that can be changed to save usually only a few minutes time. What YOU can change is how long you remain on scene.

Consider this emergency call for a 52 male with an acute episode of chest pain. His initial history was as follows; he was feeling fine and never had an episode of chest pain until today, he was shoveling snow for about an hour and developed the crushing chest pain of 10/10. His wife called 911 immediately after the chest pain started. He did not have any aspirin to take at home prior to your arrival. You find him in the garage sitting on a chair. The 12 lead ECG you did on scene showed an inferior MI. The patient remained C/A the entire trip. Some of the ACLS treatment was done on scene. The hospital was notified that this patient was coming to their facility less than 1 minute from their door.

The 911 dispatcher was on the phone for 2 minutes getting the correct information. You respond to the call and are enroute in 2 minutes. It took you 14 minutes to arrive on scene because of the distance, and you arrive at the patient's side 2 minutes after you arrive. You are on scene with your patient 34 minutes because you could not get an IV start, your B/P cuff broke when you used it, and the batteries on your cardiac monitor went dead after 10 minutes. Your transport time is 24 minutes because of the distance. You arrive at the ED one hour and 18 minutes after the patient called for assistance with his episode of chest pain. He thought he was having a heart attack. The patient did not receive thrombolytics until 1 hour and 2 minutes after arrival. He did well with the thrombolytics and re-perfused within 1 hour and 24 minutes after arriving in the ED. The patient had permanent muscle damage, and developed cardiogenic shock soon after the incident. This patient did in fact have an inferior MI, required several vasopressors, and transport to a facility with cardiac services. He did receive a CABG x 4 several days later. His ejection fraction 6 months later came back at 22%.

Could this man's heart muscle been saved, or at the very least could he have had less damage with a better outcome if he had arrived at the ED sooner, allowing the thrombolitics to be given sooner? That is a question that will never be answered.

The question YOU should be asking is why 34 minutes on scene, and why was the ED given less than 1 minute notice of this patient.

The patient was sitting in the garage, literally 20 feet from where the ambulance was parked. There were no obstructions in the way. The garage was heated so he was wearing only a T-shirt and pants. He was not on any medications. There was an initial set of vitals done by the First Responder squad that was on scene. He was already on oxygen, with an initial oximeter reading of 93%. He care came from an ALS level service provider.

After close review of this call, it was found that equipment failure led to subsequent delays in both treatment and transport. Equipment failure cannot be completely avoided, although you should have alternative methods of treatment in mind when failures do occur. What led to the biggest delay was the inability of the Ambulance personnel to provide efficient care in the shortest possible time. Efficient time management and preparedness is the key to shorter scene times.

Rural EMS systems have very unique advantages. One very big advantage is the ability to treat patients during the 15 to 45 minute transport times. Basic life support, Advanced Life Support, and ACLS can be performed in a short amount of time. Assessments need to be done rapidly, yet thorough. More than one skill needs to be performed at any given time. There have been well documented cases of codes with CPR in progress and ACLS performed on scene, with the on scene times limited to less than 15 minutes. ACLS medications, intubation, and defibrillation can be performed effectively in a short amount of time. Up to 3 rounds of medications, intubation and defibrillation can all be performed in the first 12 minutes on scene. Pre-planning is essential to good time management. This includes working with other entities which assist you, along with pre-planning of your own staff and partners. The most important pre-planning involves YOU. You need to plan how different scenarios will go, and how you can get over hurdles as they present to you.

After extensive review, it was thought that this call could have gone something like this:

After arriving on scene, and during the scene size up, it was evident that access to the patient was unrestricted, and he was very close to the ambulance. History was easily obtained from the patient. Oxygen was already in place, and an initial set of vital signs was done. The history should have been obtained while attaching ECG leads, obtaining a second set of vitals, treating the chest pain with both Aspirin and Nitro, and setting up for a 12 lead ECG. The cot could have been moved to the patient's side, the patient lifted to the cot, and the remainder of the 12 lead ECG performed prior to loading. The 12 lead ECG should not delay transport, but with efficient use of time, the tracing can be done as you load the patient, or just prior to leaving the scene while the doors are being shut and the driver readies the ambulance for leaving. This patient had two sets of stable vital signs, allowing for the IV to be initiated enroute. If it took up to 4 minutes to attempt another IV, and give subsequent Nitroglycerin, that still allows for 20 minutes to give the Emergency Department a report on this patient. Reports should not last longer than 30 to 45 seconds initially, leaving another 19 minutes for more IV attempts, along with

continuation of ACLS protocols. On scene time could have easily been 7 to 10 minutes, allowing this patient to arrive at the ED 24 to 27 minutes sooner. The advanced notice to the ED would also have helped to have additional staff available when he arrived, and would have allowed the ED staff to be prepared for a patient with an inferior MI. The patient would have gotten thrombolytics sooner, and re-perfused sooner, which could have saved more heart muscle, thus improving quality of life.

Long transport times can be a real disadvantage for many depending on their illness or injuries. Instead of letting this time get the best of you, use the time to your advantage, and to the patient's advantage. The proper use of long transport times, instead of scene times to continue needed treatment should be used to the patient's advantage. Also, use this unique advantage to give the ED time to prepare for your arrival of unstable cardiac patients.

In the next article, I will give you real life suggestions of ways to decrease you scene time. Please be sure to follow your individual service protocols and guidelines when responding to and treating your patients.

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