On Rock Bands, Plane Crashes, SWAT Teams and Codes

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I've had the great pleasure of seeing Bruce Springsteen and the E Street Band perform live a number of times since the mid-70s. Yes, I started being a "groupie" while still in diapers (no, not Depends). What amazes me still is the obvious teamwork among band members and crew. Bruce can change an introduction, set list, or song on the fly by simply looking a certain way at Roy "The Professor" Bittan (piano) or "Mighty" Max Weinberg (drums) and they all start playing in the same key, on the same beat, and the exact same note. I have seen him do this countless times and the music just seems to flow. From an outsider's perspective, it looks effortless. I suppose that is what 40 years of playing together does.

I recently had the good fortune to survive a plane crash. Believe me, it wasn't as dramatic as it sounds. A pilot friend was flying when a gust of wind hit us right at the moment of takeoff from a mountain airstrip. The plane veered off the runway to the left and then back to the right before striking a hangar. Luckily, the person (also a pilot) in the back seat by the exit kicked the door open a moment before impact, otherwise, we would have been trapped. The pilot adroitly swung the tail of the plane around just prior to impact and therefore avoided going head first into the hangar door. We were all able to jump out as the plane caught fire and then exploded. No one said a word during the event; it was as if we had rehearsed for this moment. The three of us have been flying together for a number of years, and oddly enough, we talked through a couple of "what if" scenarios the night before over dinner. One of the scenarios we talked about was being trapped in a burning plane.

For the last 14 years I have been a physician-member of two SWAT teams. Initially, I was on the Department of Public Safety's (DPS) SWAT Team, and for the last 8 years, the Phoenix Police Department's team. In this role, I am the last person in the stack (the line of SWAT officers entering a building) on a couple of hundred call-outs. What continuously intrigues me about the team members is how they work in complete synchronicity despite being constantly thrown into highly stressful and lethal situations, sometimes without a lot of advance preparation. Even with detailed preparation and reconnaissance, there are unexpected threats that make instantaneous changes in tactics necessary. The well-trained team is able to quickly react as a cohesive unit and every person on the team knows that someone else has their back.

The common denominator of the aforementioned is preparation and teamwork coupled with the "I've got your back" attitude. In order to efficiently and safely treat patients, these practices must also be utilized in urgent care medicine.

Case Study in How Not to Respond to an Emergency

For example, here is an actual patient encounter from a well-known urgent care center. A 46-year-old previously healthy male presented with the chief complaint of "feeling ill." Despite being on the job only a few days, the person at the front desk recognized that the man did not appear well and immediately called for assistance. The patient was placed in a wheelchair and pushed into the back office. As they were going by the triage room, the tech noticed that the patient was not responding appropriately. The man then began to experience what appeared to be a seizure. He was taken to the triage room, because it was the closest exam room not already occupied. The patient continued to seize as the tech screamed for help.

When her cries for assistance were heard, everyone including the provider came to assist. The patient, now a dark shade of purple, had vomited and appeared to aspirate. The physician (moonlighting Chief Resident from a nearby emergency medicine residency) called for an oral airway and ambu bag, as well as portable suction and a monitor. The patient continued to seize and was now apneic.

As the situation was unfolding, the new person in the front office simply froze. Although she made all the right decisions and took the right actions up to this point, she was out of her element.

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The back office tech, who was an EMT on an ambulance on her off days, scrambled to help. She ran to get the "code cart," which had not been opened since the last Department of Health Services inspection, and almost forgot to unplug the monitor, which nearly crashed to the floor. By now, 60 seconds had elapsed. The portable suction was not where it should have been and the only masks for the ambu bag seemed to be sized for pediatric use. Ninety seconds had elapsed. The provider finally told the front desk person to dial 911, which she did immediately. However, since she was new, the address of the urgent care was not committed to memory and was not posted. One of the patients in the waiting room, seeing her stress, gave her the address.

It took the paramedics 4 minutes and 35 seconds from dispatch to arrival. During this time, the provider managed to bag-valve-mask the patient with an oral airway in place. At some point during that time, the oxygen tank ran out of O_2. (No one anticipated how quickly o_2 tanks are depleted with such a high flow rate). The patient lost his pulse at some point during the event, probably due to anoxia or the vasovagal response from vomiting and aspirating. The back office tech did a reasonable job at chest compressions. More than 6 minutes had elapsed from when the patient first seized.

Once the medics came into the room, they assumed care of the patient. He was intubated with difficulty, an IV line was started, and chest compressions continued. The initial accu-check was 19 mg/dL (very low). The patient was given D-50 and transported to the hospital. Ultimately, the patient survived in a persistent vegetative state due to prolonged cerebral anoxia.

As it turns out, he was a diabetic who took his morning dose of insulin and then, according to his wife, seemed to get "food poisoning" and could not keep anything down. He went to the closest urgent care around noon. Other than his tightly controlled diabetes, he was the picture of health. He had a very lucrative job trading futures and was the sole breadwinner for his family (wife and 3 young children).

The life care plan (how much it will cost to take care of him for the rest of his life) was determined to be more than $ 6 million. The negligence and loss of consortium claims pushed the total damages over $12 million. The theme of the plaintiff attorney's closing argument was, "All he needed was sugar."

Here is the rub. No one in the urgent care did the wrong thing. The care was appropriate, just not coordinated or timely. It was clear from the depositions of all involved, including the patients waiting in the lobby, that the staff "panicked." No one seemed to have control, the code cart was not well stocked, no one thought to check his blood sugar initially, and the oxygen tank ran out.

Ways to Prepare for the Unexpected

How often does your center participate in mock codes or dry runs or tabletop discussions of "what if" scenarios? Are the constantly rotating front and back office staffs oriented to their roles during an emergency? It can be as simple as this:

Front office tasks:

1. Identify sick patients and get assistance from the back.
2. Ask the provider if 911 should be called.
3. If "yes," call 911 and give them the clinic address posted by the counter.
4. If not needed in the back, once 911 has been dispatched, prop front doors open, clear the path, and wait outside to direct fire crew into center.

Back office:

1. Check the code cart or emergency equipment tray at the beginning of every shift.
2. Respond to front office request for help for "sick patient."
3. Notify the provider if not already aware.
4. Ask provider again if 911 is needed, if so, direct front office to call 911.
5. Bring code cart and oxygen tank into the room.
6. Anticipate needs (get ambu bag, mask, O_2 tubing, etc. ready)

Provider:

1. Respond to calls for assistance.
2. Quickly assess patient (Airway, Breathing, Circulation, and Disability) to determine need for 911 call.
3. If the patient is tachypneic, place on oxygen via mask.
4. If patient's mental status is altered, check blood sugar.
5. Support patient until 911 arrives.

Simply discussing these points and posting these tasks helps remind everyone what to do in case of an emergency. I know you are thinking, "This is so simple, why should we do this?" Here is why: Although many of you are trained to handle and expect emergencies, not everyone has that background or experience. In highly stressful times, things breakdown and everyone reverts to their training and "muscle memory." That is why checklists and repeated practice are necessary in other potentially high-risk areas like aviation and police special operations.

Take-home points:

1. Public expectation and the standard of care for urgent care centers is that they are able to handle (at least initially) emergencies.
2. Urgent care staff need to be trained on their roles during emergencies
3. Urgent care centers should have quarterly "mock codes" or "tabletop" discussions on what to do in case of an emergency.
4. Do no harm. You don't need to necessarily "save" patients (although saving them helps). You do need to respond appropriately and in a timely manner to patients who are experiencing an emergency. ■