

## **El Dorado County EMS Agency Accreditation Required Reading: Article 3**

### **Proof of Life**

Why we must make every possible effort, even when patients 'look' dead

By David Erdman, EMT-P

In the "Lazarus Phenomenon," patients show signs of life after being declared dead; however, this "recovery" sometimes represents providers' failure to properly assess an apparently dead patient and can have disastrous results.

Erica Smith, 23, was riding in a friend's car when a vehicle coming in the opposite direction crossed the lanes of a San Antonio highway and hit the car carrying Smith head-on. The horrific crash occurred at 3:50 a.m. on a cold morning in December 2007.

San Antonio and South Texas Fire-Rescue crews triaged the scene and declared Smith dead after noting that her brain was partially exposed from an open head wound and brain matter was on the dashboard of the vehicle. She was covered with a tarp and left sitting upright, still trapped in the mangled wreckage that was once her friend's car, while the providers turned their attention to the other victims. The drivers of both cars and the remaining passengers were treated for their injuries and quickly transported to the hospital.

More than an hour after the fateful crash, a medical examiner's investigator arrived at the scene and, to his surprise, found Smith still breathing. He asked police to recall the fire department. The investigator repeated what he'd seen to the arriving fire rescue personnel. After calling their supervisor, the fire-rescue personnel agreed to "check the victim out" and told the investigator who summoned them they would free Smith from the car, "but if at any time during the process, she stopped breathing, they would halt the process."

Smith was extricated, treated and airlifted to Brooke Army Medical Center nearly two and a half hours after the crash that ultimately claimed her life. The case received national media attention and resulted in the individual responders being disciplined by the fire department. The Texas Department of State Health Services notified five of the responders of intent to pursue disciplinary measures. Erica's mother reportedly said, "Erica would have had a better chance of survival if treated right away." But we'll never know.

### **Back from the Dead**

It's commonly called the "Lazarus Phenomenon." It sounds like a bad tabloid

headline, but it's actually a term generally applied to people who surprisingly "return to life" after being declared dead in the field by EMS providers, either after resuscitative efforts have ended or after responders have decided not to undertake them. In the latter scenario, a split-second decision can leave a potentially viable patient abandoned, EMS providers in jeopardy, and an organization scrambling for answers while fending off litigation, bad press, compromised public confidence and state EMS inquiries.

The cases presented in this article, including the introductory case, are but a sampling of incidents, going back to 1982, concerning this phenomenon. Although some cases draw national media exposure, the majority of "Lazarus" cases generally don't get significant media attention.

The terms "Lazarus Phenomenon" and "Lazarus Syndrome" are derived from the story of Lazarus in the Bible. Lazarus dies and is "brought back to life" by Jesus several days later in front of a crowd full of mourners. Resurrection after dying was quite a crowd pleaser some 2,000 years ago, but the "resurrection" of a declared dead patient by EMS in modern times is not likely to produce letters of commendation or any other meaningful accolades.

A Google search on "mistakenly declared dead" or "declared dead by paramedics" (or similar terms) will turn up an abundance of articles. After sifting through a few pages, you'll understand that this situation is not specific to EMS. Hospitals, nursing homes and other health-care facilities have made the same mistake.

In fact, much has been written about the subject in various medical journals. A 2001 *Anesthesia & Analgesia* article discusses the case of a 66-year-old man who suffered a cardiac arrest while undergoing surgery to repair a leaking abdominal aortic aneurysm and experienced a return of spontaneous circulation a full seven minutes after the aggressive resuscitation effort ended. Surprisingly, the patient survived the event and, after a five-week follow-up exam, he appeared to have fully recovered and has since resumed his normal lifestyle.

## **Case #2**

In October 2005, 51-year-old Louis Golson was declared dead by EMS.

His sister asked her husband to check on Golson, who lived downstairs in a basement bedroom. He found Golson unresponsive. The couple called 9-1-1.

After reaching the residence, EMS personnel emerged from the basement a short time later and told the family that Golson was dead. They explained to family members that Golson "had died in his bed and that rigor mortis had begun to set in." It's not clear what criteria, observations or equipment were used to make this determination.

Another sister arrived on scene and descended the stairs into the basement just in time to see her brother before his body was removed from the scene. She reportedly saw Golson open his eyes and move his arm. Police officers arrived at the scene and examined the victim only to find that he was, in fact, alive. Golson was finally rushed to an area hospital, where he was treated for a condition related to his diabetes.

According to news reports, the EMS crew members were investigated by their employer to determine if disciplinary action was warranted.

### **Case #3**

On Jan. 24, 2005, 27-year-old Larry Green stepped onto a highway in Franklin, N.C., one dark night and was struck by a passing car.

The head-on impact propelled Green 100 ft. in the air. He landed in a ditch and, according to published accounts, suffered extensive head and leg injuries. He lay motionless in the trash-strewn ditch with a pool of blood surrounding his head that was estimated to be a foot in diameter.

At 8:53 p.m., units from Franklin County EMS, Epsom Fire Department (EFD) and Louisburg Rescue were dispatched to the scene. The first emergency personnel arrived on the scene approximately one minute later.

One of the three EFD members, who was also employed as a paramedic with Franklin County EMS, examined Green. The paramedic found no carotid pulse, absent breath sounds, no chest movement and "massive head injuries" before declaring Green dead at the scene. The second unit on the scene from Franklin County EMS was carrying two more first responders. They met with the paramedic who initially examined Green, and it was determined that they did not need to examine him further. They covered his body with a sheet.

At 9 p.m., two personnel aboard the Louisburg Rescue unit arrived and met with the other responders on the scene, who told them that the victim sustained severe head injuries and was pronounced dead. Based on this information, the Louisburg responders elected not to examine the victim.

The Franklin County medical examiner, a licensed physician, arrived at the scene approximately 37 minutes after the initial crews were dispatched to the scene. He surveyed the scene and noted the victim's location in relation to his shoes, socks and pants. He examined other evidence at the scene, including the damage sustained to the car that hit Green. He then examined the victim while the initial first responders, joined by other members of the EFD, held up a tarp to shield the examination of the body from bystanders.

It was at this point, after seeing the victim's chest and abdomen move, an EFD member asked if Green was breathing. According to a report by the Franklin

County Attorney's Office, the medical examiner told the firefighters that the movement was the result of air escaping the body after being turned over during examination. The victim's broken leg was twisted upon examination and first responders state the medical examiner placed his finger in the wound on Green's head.

When questioned later, one first responder stated that they did not respond to possible chest movement, because they relied on the explanation of events provided by the medical examiner. Franklin County EMS policy states that resuscitation efforts should be undertaken immediately "if doubts exist."

Surrounded by paramedics, firefighters and a physician, all trained to save his life, Green was placed in a body bag, which was then sealed for transport. The victim was loaded into one of the rescue units that responded to the scene and transported to the medical examiner's office. The medical examiner began a second exam of Green, and it was during this exam that one of the paramedics present noticed the victim's right eye twitch several times. When she questioned the physician performing the exam, he reportedly replied that this was a muscle spasm "like a frog leg jumping in a frying pan."

Although the paramedic who witnessed the victim's eye twitch later stated that she was uncomfortable with the situation and related her feelings to other responders present at the medical examiners' office during the second exam, no one took the opportunity to look for other signs of life. After the second exam, Green's supposedly lifeless body was placed in a drawer and secured in the portable morgue.

At 11:23 p.m., the victim was removed from the drawer at the behest of state troopers for a third exam to determine from which direction the vehicle struck the car carrying Green. The medical examiner opened the body bag and saw Larry's abdomen move. He quickly called for EMS, who arrived and placed an ECG monitor on Green and discovered a rhythm. He was taken to Franklin Regional Medical Center by local EMS approximately two and a half hours after he stepped onto the road.

As a result of the Green case, five paramedics were immediately suspended by the county; two were eventually fired and stripped of their paramedic certification by the state. Other responders at the scene were placed under investigation.

Today, Green lives in a nursing facility. He's alive but permanently disabled. Green's parents filed a lawsuit on his behalf. Franklin County's medical examiner, Franklin County EMS, and Louisburg Rescue and EMS were named in the suit, which has garnered national media attention.

### **Avoid Snap Judgment**

There are some troubling similarities in the scenarios described. As my medical

director likes to say, "No one comes to work with the intent of doing the wrong thing." However, good EMTs and paramedics can make critical mistakes due to experience-based assumptions, misleading radio communications and bad information from other responders on scene. Moving forward and changing the way we deal with the "determination of death" may be as simple as changing the collective mindset to determining "proof of life."

An experienced EMT, paramedic or firefighter will see more dead victims in the span of their career than they care to recall. The dead come in a variety of conditions that can cause the most stoic EMS veteran to wince.

Can we count the number of bodies we've encountered that have begun the process of decomposition, testing the limits of our visual and olfactory senses? Can you remember the last five or 10 elderly victims you pronounced dead after their spouse woke up to find them cold and unresponsive? Do these images and experiences, etched deeply in our minds, become a permanent reference for later use in decision-making? Do we make quick judgments on whether a person is dead based on a graphic visual presentation and our past experiences with other dead victims? Have we become so accustomed to seeing dead people, many of whom are horribly injured and disfigured, that we're forever prejudiced in our clinical decision-making? Is there a bias, built up over years of dedicated service in prehospital medicine? In the cases described, the answer may be yes.

Even the most experienced and trusted medical directors appear concerned about the phenomenon. Laurie Romig, MD, the medical director for Pinellas County (Fla.) EMS, outlined concerns she had with regard to declaring patients deceased at crime scenes in a memo written in December 2007. Her memo, titled "Crime scene declaration of death," carried a warning to all her EMS providers. "I realize that there are some types of patients who, for practical purposes, can potentially be declared dead without following the requirements for applying the cardiac monitor and checking for pulse and respirations (decapitation, decomposition, etc.). I cannot authorize deviation from existing protocol ..." She goes on to say, "Stories about patients who have been declared dead and later found to actually be alive come across my desk at least several times a year. Fortunately, the stories haven't been from Pinellas County; we'd like to keep it that way." Good advice.

Ventura County (Calif.) EMS actually references "Patients Who Appear to be Dead" in its medical protocols authorized in December 2008. Its protocols outline a series of actions that must occur in logical progression before declaring someone dead.

### **Proof-of-Life Paradigm**

We can't change the past, but we can acknowledge the need for increased vigilance and make substantive changes for the future. To do that, it's essential to change our mindset from trying to determine death to uncovering proof of life.

EMS professionals can collectively change their approach by following some rules to eliminate the visual bias that may affect judgment and force reliance on our diagnostic skills and cutting-edge equipment to make these critical decisions. Consider adopting these proof-of-life guidelines:

- A BLS unit without the ability to interpret or monitor a heart rhythm unit should not determine death. Exceptions for obvious death can be found in many local protocols and may include decapitation, gross decomposition, massive crush injury that would include destruction of the heart, lung and/or brain, and gross dismemberment of the trunk. All other victims are examined by ALS personnel.
- Check for a pulse in more than one site.
- Listen for heart sounds with a stethoscope.
- Take a minute and look, listen and feel for breathing.
- No one is dead, until they're "wired and dead." The use of a cardiac monitor to check for a viable rhythm should be a mandatory step in looking for proof of life. Most protocols around the nation recommend that the patient be monitored for a full minute and a recording made of the entire process.
- Consider the various medical conditions, including diabetes, overdose, hypothermia and other factors that can cause a person to appear dead when they're actually alive yet unable to express that to you.
- Put a fail-safe plan into effect: The patient is initially examined by an ALS provider, then by a second provider (your partner or another similarly qualified responder on the scene), nearly concurrently, using the same proof-of-life guidelines, and both must agree with the determination of death. If there's any disagreement, resuscitation is immediately initiated.
- Take great care when pronouncing a patient dead after aggressively attempting resuscitation, especially when multiple medications have been administered. Many of the articles written about the Lazarus phenomenon occurring in the hospital setting seem to occur after resuscitative efforts have ceased. One article in particular may provide good advice for prehospital providers when recommending continuous ECG monitoring for 10 minutes after pronouncing death to ensure the patient remains deceased.

### **Conclusion**

It's our duty and obligation to ensure that if an opportunity exists for a patient to survive, we use our skills, tools and experience to give them a fighting chance at life. Acknowledge that there's a distinct difference between "looking dead" and "being dead." Don't let the victim's appearance or distractions on scene, no matter how overpowering, dissuade you from doing all you can to establish that the patient may be viable. You're the patient's last and best hope. Don't let them down when they need you most.

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