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Sherri is the training and operations manager for Waukesha County Communications, Wisconsin, USA, a combined dispatch center in southeastern Wisconsin, just west of Milwaukee, a land where the beer runs freely and locals proudly stack cheese on just about everything and call it great. You can contact Sherri at 262-446-5085 or by email at stigler@waukeshacounty.gov.

Art is a software instructor and IAED™-certified ED-Q™ instructor for Priority Dispatch Corp™. He has been a fire and EMS dispatcher for 18 years and works at Union County Regional Communications in Westfield, New Jersey, USA. Art has been involved in 911 telecommunicator training and medical quality assurance since 1999.

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IS IT SUMMER YET? Journal celebrates season’s change

Josh McFadden

This issue is scheduled to arrive at your centers when NAVIGATOR hits New Orleans, Louisiana, USA. After the event, many of you will head out for weekend getaways, family trips, or outdoor excursions. So we’ve put together some informative, fun articles we feel fit nicely with this time of year.

As people get outside more, their chances of encountering wild animals increase. Managing Editor Audrey Fraizer tackles some of these issues in her Medical CDE titled “Beauty And Beast.”

Spring and summer are the perfect seasons for sightseeing, but vacations aren’t without hazards. I’ve written a feature about a fictitious family that goes on a cross-country trip, only to find trouble at every turn. The feature brings up several scenarios where the protocols would be used. Our second feature is an in-depth look at the troubling rise in opioid abuse. Audrey has some information to share about the dangers of painkillers.

This issue also includes a Fire CDE. Staying with our outdoors theme, I’ve written about high-angle rescues.

One of Your Space articles introduces you to a trio of comm. center members in the Twin Cities of Minnesota (USA). Another Your Space piece about a former dispatcher in Kansas will put a smile on your face. This article relates the tale of Lindsay Prater, whose loss of hearing forced her to step away from her job. To provide help, OnStar awarded Prater a grant of $20,000.

Also, enjoy the following columns: Lean In and From the EMD Side. Director of Academics, Research & Communications Isabel Gardett also contributes a Research Column about how EMDS can more effectively identify strokes than on-scene paramedics. We also profile one of our ACEs, Allina EMS in Minneapolis/St. Paul, Minnesota. Plus, we highlight Joint Emergency Services Control Centre (JESCC), Guernsey, U.K., and Maine’s Emergency Services Bureau.

Lastly, when you plan your vacations, do you ever think about watching ambulance racing? This unique activity is a fixture at Cedar Lake Speedway in Richmond, Wisconsin (USA), owned by Allina EMS Director Chuck Kaufman. Read about it in Case Exit.

As you can see, we’ve got a little bit of everything in store for you.

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MARKING TIME
Metronome study tracks effective CPR
Audrey Fraizer

For a moment, it seemed math and science overwhelmingly dominated University of Utah graduates and undergraduates’ choice of majors and minors.

At least, this was my perspective while spending an afternoon at the university’s Student Union building recruiting volunteers for an IAED™ study. This was the third phase in examining how a metronome may assist dispatchers in providing bystanders with hands-on-chest CPR instructions.

In all phases, volunteers, kneeling alongside a medical dummy in a simulated cardiac arrest situation, gave compressions-only CPR following instructions from an EMD for timed two-minute periods. In the experimental group, volunteers and the EMD counted out loud using a metronome, while in the control group, volunteers and the EMD counted out loud without the use of a metronome. The study compares effectiveness of chest compressions when provided with and without the metronome.

Spencer Steadman, a psychology major, is applying to medical school. Hannah Waddel, a math major, plans on going straight through to a Ph.D. in math; she’s interested in research and had already conducted biology research into brain development of a zebra fish. Andrew Clevenger, a graduate student in chemistry, is studying nickel complexes, and Johnny Le, a computer science major, wants to “revolutionize how things work in the world.”

Finally, the question came up, at least in my mind.

No one wants to admit to studies other than math and science?

That’s when Kayla Stewart set things straight. The chemistry and math major, and science club president in high school, pointed down the hall. The IAED research project and the Calculus Carnival were sharing the second floor. By 4 p.m., it was standing room only for students competing in rapid rounds of calculus bingo.

Stewart, who arrived early for the carnival, said the words “research study” on the IAED poster caught her attention, while principal recruiter and IAED statistician Meghan Broadbent was only too happy to send her in the right direction.

Though most participants were trained in CPR, none had provided bystander CPR. Only a few had ever called 911 in an emergency. Sara Lee, a biology and chemistry major, has never had to call, but just in case, she wanted to be ready.

Opportunity to participate in a research project seemed to be the biggest draw. The incentive of a $200 Amazon gift card awarded randomly to one of the eventual 53 participants also carried some weight.

Andrew Porter, a computer engineering major, wants to make computers smarter, faster, and more efficient through the application of mathematical and scientific principles. He also wants to add to a broader understanding of biomedical engineering. Research, he said, is how you get there.

Melissa Preziosi, an educational psychology graduate student, conducts research into adult learning and has an undergraduate background in research involving human participants.

“This project seemed like a good thing to do,” she said.

Loveleen Ghuman said the study complemented her high school’s medical response team. She is certified in CPR, trained in using an AED, and has practiced mock medical emergencies. She carried a first aid bag to classes in case she was called out to an emergency at the school. A section of the program familiarized her with 911.

“I’ve asked questions about medical procedures since I was a kid and a family member was in ICU,” she said. “I want to know what happens, and that’s what makes this so important. I’m part of finding out.”

A high school and an assisted living center were the sites of earlier phases in the research project. The IAED plans to publish findings later this year. ●
Dec. 10, 1996, is a day Jill Bolte Taylor will never forget. That was the day she lost her ability to walk, talk, or read when she suffered a massive stroke in her left hemisphere. A Harvard-trained neurologist, Taylor knew exactly what was happening to her when the first symptoms appeared. Most of us, however, do not have Taylor’s training. When a member of our family suddenly loses the ability to sit up straight, or starts mumbling random sounds instead of speaking in sentences, we do what we have been trained to do—we call 911.

It’s a good thing we do. According to new research, Emergency Medical Dispatchers (EMDs) using a scripted stroke scale accurately identify even more strokes than medics on the scene.

On the face of it, this seems impossible. Paramedics have so many apparent advantages. They can see the patient. They can touch her, move her arms, look into her eyes. They can ask bystanders and family members what they saw. They can run tests and feel the patient’s pulse. All the dispatcher has is a voice. As a result, many dispatchers believe that there’s no point in conducting a stroke diagnostic at the dispatch point; after all, the paramedics will get so much more information once they arrive that the whole thing will end up being redundant.

The numbers tell a different story. Our study (published in the attached issue of the Annals of Emergency Dispatch & Response) found that, out of 603 hospital-confirmed strokes, EMDs identified a full 99 that the field responders missed, and identified clear evidence of a stroke in another 31 cases where the responder’s test was inconclusive.

How is this possible? It’s simple: things change.

Stroke is one of the most highly variable conditions handled by EMDs. Not only can stroke symptoms vary widely from one person to another, but a single person’s symptoms can change, or even disappear, from one moment to the next. This is especially true for people suffering transient ischemic attacks (TIAs), or “mini-strokes,” which are predictive of later full strokes and other negative outcomes.

EMDs can and do identify tens of thousands of strokes per year—maybe more—that would otherwise be missed.

Repeated studies have shown that any stroke assessment is likely to be far more accurate closer to the time of the initial stroke. In other words, the first, first responder (the EMD) is the most likely person to capture the true symptoms of a stroke in any given case. By the time responders arrive on scene, the patient’s symptoms may have changed or receded, or the patient may be unresponsive and unable to complete a stroke diagnostic at all.

The danger in these cases is that a stroke that isn’t identified early may not be identified as a stroke at all. Why? Emergency department (ED) physicians miss as many as 38 percent of the strokes that appear in their EDs. If it’s missed at dispatch—or the Stroke Diagnostic Tool is not performed—it may never be identified. And it’s pretty clear that when a stroke is missed or misidentified, it gets worse. The patient misses the optimal time window for treatment. Often, serious neurological damage or death is the result.

It may seem logical to think that responders on the scene, with their greater access to tools and their ability to evaluate the patient in person, would have such a huge advantage in identifying stroke that conducting the assessment at dispatch is just extra work. Nothing could be further from the truth. Because they are so close in time to the initial stroke, EMDs can and do identify tens of thousands of strokes per year—maybe more—that would otherwise be missed.

The next time that Stroke Diagnostic Tool pops up on your ProQA® screen, remember: The best chance this patient has may be the one at your fingertips.

Check out the full study in the attached issue of the AEDR.

Sources
Jeff,  
Is there a publication, either in the peer review literature or from IAED™, that shows when different telephone CPR scripts were implemented in MPDS® scripts? For example, when did the C-A-B (Chest compressions, Airway, Breathing) sequence get implemented? When did the Hands-only CPR instructions get implemented?  
Michael R. Sayre, M.D.  
Professor  
Division of Emergency Medicine  
University of Washington  
Medical Director  
Seattle Fire Department

Hey Michael,  
Long time no see. Hope you’re thriving in the great NW. I can give you the timeline for the beginnings and major changes in MPDS CPR protocols you have asked about below:

1. CPR and choking instructions were included in the first MPDS v1.0 in 1979.

2. We moved to a more logic-driven fully scripted and instruction linked form in 1983.

3. In 1990 (v10.0), the Council of Standards (COS) of IAED implemented the panel-logic-script method of the 3x3 (nine-panel format) that greatly simplified EMD use (you guys had that in Cincy).

4. In 1995 (v10.3), CPR was mirrored with an AED Support protocol that integrated all AED steps logically with the various CPR steps.

5. In 1998 (v10.4), the pulse check was removed based on AHA recommendations at that time.

6. In 2004, CAB was implemented, which gave compressions first, followed by two vents at the 400 (Four-minute) compression mark. This coincided with 30:2 for kids at this time. These recommendations came from an Academy Resuscitation Council that published this rationale in Resuscitation (see attached).

7. In 2008, CAB was modified to start with continuous compressions for 600 (six minutes). This modification was made based on recommendations from the Academy’s Resuscitation Council and the latest evidence regarding positive pressure ventilations.

8. In 2015 (v13.0), the choice was given to local Medical Directors (via use of an Administration Utility setting feature) to select either Compressions 1st (600) or Compressions Only (until responder arrival) based on their clinical and geographical needs. Some extended response regions and rural/wilderness areas have 30- to 60-minute response times, so “refilling the oxygen tank” via some breaths at 6 minutes out has been desired by some. AHA has never taken a stand on this concept—i.e., no evidence one way or another they say …

9. In 2015 (v13.0), the COS completely revamped all aspects of arrest detection, eliminating unneeded elements, to get Hands-on-Chest (HOC) faster and improve the quality of CPR, as well as provide the metrics to implement an EMD CPR Quality Improvement process. This has been, on initial studies that are undergoing now, a great success.

I have attached a couple of short articles from the Academy’s Journal that better detail some of these changes as well as an abbreviated list of changes of interest to local medical directors. Please note that these were published prior to the official release of v13.0 and are now past tense. Additionally, Brett Patterson, Chair of the Academy’s Medical COS, and several other Academy CPR and resuscitation experts, have put together a “High Performance EMD” course designed to heighten the EMD’s appreciation of their critical role in resuscitation and improve their performance using the new v13.0 protocol. It also includes a Q&A module specific to telephone CPR. I have attached the related course brochure.

I have also attached an article published by our joint buddies in Dallas outlining a more general history of EMD in the U.S.

(Editor’s Note: The Journal website at https://iaedjournal.org includes these articles and the brochure among other archived documents and publications.)

Again, hope things are going swimmingly for you and your work. Please don’t hesitate to contact me if any further information or clarifications are needed.

Best regards always … Jeff C.
With the dawn of a new year, it seems like the perfect opportunity to take a deep breath and reflect upon our calling…our choice to “be” 911. Like many of you, I often wonder about how on earth, among the chaos swirling around us daily, we manage to hold it together. We are the directors, the air traffic controllers… and, for all practical purposes, the “ringmasters” of this circus… where anything can happen and you always tend to be exposed to the unique and unusual.

Yes, indeed, folks, this IS our circus, and these ARE our monkeys.

As the ringmasters, we are tasked to make sense of it all so that we send the right help to the right place at the right time. And sometimes that takes a lot of doing.

Recently, I was on the operations floor watching as the staff was busy multitasking its way through a particularly intense burst of critical calls. The phones were ringing off the wall; the voices became louder and more numerous. Police, fire, and EMS radios were squawking away. What did I see? Pure focus from those dispatchers; intensity; listening for the next transmission; anticipating; teamwork. I heard things like “I got the tow,” “I’ll call flight (air medical),” and “I’ll advise the supervisor.” It was amazing to watch them weave order and calm in the midst of chaos, in the middle of the circus.

I ask myself how a person is drawn to do what we do, because it is truly fascinating.

How do we speak gently to a child who calls because his parents are in the middle of a serious domestic disturbance? How do we find the patience to get information from an elderly woman with Alzheimer’s who called (as she does every few days) because she misplaced her keys again? How do we find the courage to calm a panicked woman in order to direct her to begin CPR on her husband or to coach a frightened father to help deliver his first baby? How do we maintain a clear and even tone in our voice when the officer on the other end of our radio is in hot pursuit of a robbery suspect?

The answer begins and ends in each of us drawn to this profession. We are a special breed. Our director, Gary Bell, tells new employees that they are among the elite 2 percent of the population who can do what we do. We see close to a 50 percent wash-out rate within the first six months of employment at our center. It has nothing to do with our hiring process, because it’s extensive. It has nothing to do with our training program, because it’s top notch.

It does have everything to do with a person’s ability to function and get it right under those inevitable pressures that exist in the 911 environment. It has everything to do with keeping it under control.

There is a special “something” that we “ringmasters” share. It is a unique combination of intelligence, empathy, bravery, resiliency, patience, humor, and heart. We are willing to stand in the middle and somehow direct organization when the circus seems to be running amok. And we love every minute of it. Those who enter this profession who are simply “jobbers” will find themselves on the outside of the tent looking in, and the show must go on without them.

We are among the elite, and we strive to be the very best ringmaster possible. We must never stop learning and growing. We must keep our sense of humor, as the clowns will, even though they are sometimes sad and afraid on the inside. Our audience is worth the effort. Remember, this is our circus, and these are our monkeys. Congratulations!
Two of my co-workers gave me a sign that reads, “GO THE EXTRA MILE—It’s not crowded there.” I was flattered—it seems I have a reputation as someone who’s not content with being average.

Our jobs have their frustrations. Callers and even responders frequently don’t appreciate what we’re doing or why, even when it’s in their own best interest. One popular internet site is full of humorous cards with sarcastic messages directed toward both groups. (If only we could send them to a few choice people.) When we get genuine appreciation from anyone in our business, it can give us a real boost.

Surprisingly, the instances where I’ve seen and experienced the most appreciation from our “customers” wasn’t from saving a life or something else definitive. It was from nothing more than going a little above and beyond.

I work in a regional communication center, and we handle the full spectrum of emergency and non-emergency calls. Recently, a trainee I was with took a call from a man whose car had been towed after being pulled over for a motor vehicle violation. He was trying to find where it had been towed so he could get it back. The problem was, he didn’t know when it happened because he couldn’t remember. It was several weeks ago, and he had a lot of problems to deal with before he got back to his car—and had lost the paperwork in the interim. Our Records Department was closed, so our search options were limited to CAD. A cursory check revealed no calls that fit the profile, and we told him as much. It would have been very easy to say, “Sorry, without more information we can’t help you.” Instead my trainee said she’d look a bit further and stayed on the phone another five minutes looking back through a few weeks’ worth of calls. That didn’t yield any success either. So imagine my surprise when the same man called back an hour later to tell her that he still couldn’t find his paperwork but wanted to say “thank you” again for how much she tried to help him.

Recently, another one of my co-workers took a call from a suicide hotline elsewhere in the state. They had just spent 45 minutes on the phone with a depressed female. The only thing they could get out of her before she finally hung up was that she lived in our county. Officially, there was nothing for us to do. But my partner decided to call her himself. The girl initially refused to give any information, but my partner eventually managed to establish a rapport to the point where she accepted his offer of transport to a crisis unit.

Often, going a little above and beyond for someone—even if the only appreciation you get is a brief acknowledgement over the radio—can make someone’s otherwise aggravating day better. And exceeding people’s expectations often isn’t hard to do, since customer service standards have plummeted to abysmally low levels in so many areas of our society. Let’s also make a point of recognizing our partners when they perform exceptionally. My agency has a “Report of Exceptional Performance” that we initiated based on a similar form I was shown while teaching for Priority Dispatch® at Onondaga County 9-1-1 in Syracuse, New York, USA. (Thanks for the idea, Onondaga.) Anyone can fill it out, and it lets administration know about something that might otherwise go unwitnessed and unsung.

Delivering excellence isn’t hard to do. Go the extra mile routinely, and it becomes your standard. And as my new sign says, it’s not crowded there.
get the **right** information.

at the **right** time.

to the **right** people — every call.

Faster calltaking time means shorter time to dispatch.

That means faster, safer responders and safer communities.
THE HOLD BUTTON
Should incoming call interrupt current call?

Brett Patterson

**Brett:**
I am a new EMD, and I have a question about a hypothetical situation and am looking for guidance should it ever occur.

Let’s say you are in the dispatch center by yourself, and you are on a 911 call giving dispatch lifesaving instructions (e.g., CPR, compressions, or choking). Your other 911 line rings. Is it acceptable to put your current patient on hold or temporarily stop giving instructions to answer your other 911 call? Or, is it our duty as an EMD to stay with the patient and continue with instructions and have the other 911 line continue to ring and potentially not get answered due to giving lifesaving instructions to the first patient? Our agency has no policy on this, and I am looking for advice from other EMDs on what they would do if faced with this situation or if there is a protocol for this.

Thank you so much for taking the time to read my question. I look forward to hearing from you. I hope you have a great day.

Jennifer Boedicker
Richfield Police Department
Richfield, Minnesota, USA

**Jennifer:**
You have a challenging question!

Fortunately, being faced with such decisions in an emergent environment has for many years been considered by our courts, and there are provisions for essentially “doing the best one can given the circumstances.” In short, the standard of care is “adjusted” based on the unpredictable challenges we face. This principle in law is called the Emergency Doctrine, and it is based on the “reasonable man” concept. I have attached an article I wrote for 911 Magazine that explains this in more detail. (See accompanying column.)

To answer your question specifically is difficult because every situation is different. If, for instance, you were providing CPR instructions when a slew of calls hit your center, your decision to put a caller on hold may be based on where you were in the instruction process, i.e., you decided to stay on the phone until compressions were started, or you decided to put the caller on hold while they were getting the patient to the floor. Both of these decisions could easily be justified using the “reasonable man” concept.

And while agency policy may be helpful in these situations, you can see how it would be difficult to create a policy that covers every possible situation. More often, policies are created to change response plans or suspend PDIs/PAIs during unpredicted, high call volumes. In addition to the consideration of policy, however, you may be comforted to know that doing the best you can, given your training and experience, is always considered in a court of law. And important to the agency’s administration, predictable spikes in call volumes are generally not considered under the Emergency Doctrine because they are foreseeable. In other words, an agency is obligated to prepare for what is predictable.

Feel free to contact me directly with any additional questions or comments.

Brett A. Patterson
Academics & Standards Associate Chair, Medical Council of Standards International Academies of Emergency Dispatch

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**Editor’s Note:** The following article was published in the January/February 2006 issue of 911 Magazine.

DISPATCH OVERLOAD
Applying principles of law to disaster management

Brett Patterson

The record hurricane season of 2005 and the subsequent criticism of how the disasters were handled by emergency agencies and their leaders have many
of us in emergency communications considering ways to be better prepared for times of crisis. However, preparing for call volumes that can implode any reasonable staffing and equipment preparations is no easy task. It seems that no matter how well we prepare before a storm, our resources are taxed beyond their limits, leaving line personnel, supervisors, managers, and administrators to make uncomfortable triage decisions, often in the heat of battle without a moment’s notice.

Fortunately, our system of justice provides some consideration for such times, within reason, of course. Our system of justice, and that of most Western civilizations, is generally based on something called the reasonable person concept. In civil law, this concept uses a hypothetical person to set a standard of care based on what actions may be considered reasonable in a given situation. Furthermore, this concept is considered in the definition of negligence where the actions of the defendant are compared to the hypothetical or testimonial actions of a reasonably prudent person given the same, or similar, circumstances.

There is another principle in law that has more specific regard to the practice of public safety where explosive call volumes and desperate situations are more common than are universally expected elsewhere. The emergency doctrine considers times of crisis separately from normal, expected situations. In other words, our law allows for instinctive reactions, even if those reactions do not meet an ordinary standard of care, when they are the result of a sudden, unexpected need.

On the surface, these concepts appear to protect emergency professionals from civil liability during times of crises. If only these principles are considered, it seems that, for instance, the emergency dispatcher need only perform reasonably well during normal times and rely on instinct when disaster strikes. In reality, these concepts in law are considered in conjunction with perhaps the most important legal principle pertaining to public safety: foreseeability.

In tort law, foreseeability is considered an essential element of proximate cause. In other words, causation, or the direct relationship between one’s actions and the damages associated with a negligence claim, is somewhat dependent on the ability of the defendant to foresee the problem. This directly relates to emergency operations because many of the crisis situations we face are indeed foreseeable; in fact, they are predictable.

Modern weather forecasting technology makes the tracking and landfall predictions of a hurricane more accurate than ever. The emergency command centers associated with Hurricane Katrina were able to anticipate disaster days before the storm made landfall. Additionally, past hurricanes and scientific predictions provided accurate assessments of what may happen if a hurricane of such magnitude were to strike the Gulf Coast of the United States in the vicinity of New Orleans, Louisiana. With such information available, can it be said that public safety officials were reasonably able to foresee the need for public aid, and the demand that would be placed on their operations, in the event of such a storm?

Given the reasonable person concepts that protect emergency workers in times of crises, and considering the principle of foreseeability that protects the public, how can we better prepare for disastrous situations? While it may not be reasonable to provide enough resources to manage a disaster as we would during normal operations, public expectation demands that we do everything in our power to prepare, using all available means of prediction. In addition to staffing to full capacity, this means pre-planning and training that outlines specific methods of triage for times when resources are depleted and some calls must, necessarily, go without a traditional response. In the communication center, a pecking order of duties must be established ahead of time so that personnel act consistently, as compared with each other, with regard to answering calls, providing interrogation and instruction, assigning resources, and coordinating field activity. Personnel should be adequately trained and practiced to manage times of severe overload in order to make the best possible use of limited resources. Such practices should be written into protocol, where possible, and summarized in guidelines when exact specificity is not possible.

Most of us can find it in our hearts to excuse an action with an untoward outcome when such an action is performed under duress and made with the best of intentions. However, as situations become more predictable, the handling of those situations becomes more manageable, and the level of expectation naturally rises. From the predictable rise in call volume on a full moon or celebration night, to the anticipation of a record hurricane season, we share a responsibility to prepare our services to a level that meets reasonable expectations.

While no man can be expected to perform at his best doing something he has not had the opportunity to learn, every man should learn from the lessons of history and prepare for the expected. Reasonable Person: A hypothetical person used as a legal standard, especially to determine whether someone acted with negligence; the reasonable person acts sensibly, does things without serious delay, and takes proper but not excessive precautions.

Emergency Doctrine: A legal principle exempting a person from the ordinary standard of reasonable care if that person acted instinctively to meet a sudden and urgent need for aid.

Foreseeability: The capacity to be reasonably anticipated; foreseeability, along with actual causation, is an element of proximate cause in tort law.

Source

There’s something delightful about landing at the Minneapolis–St. Paul International Airport, renting a car, and reaching a destination in the Twin Cities (St. Paul/Minneapolis), Minnesota, USA.

Trees, leafy and needled, line the roads and extend back to border lakes and ponds. The air feels clean, easy to breathe, and carries the scent of fresh water and pine. Come winter, ice rinks set up in backyards complement frozen waterways for hockey practice, undeniably the state’s most popular high school sport.

There’s also something called “Minnesota Nice.” Minnesotans are fiercely loyal to one another and gladly extend a helping hand because it’s the polite thing to do. Neighbors shovel snow from neighbors’ driveways and invite neighbors to skate on their ice rinks. Drivers merge when it’s their turn to merge in a traffic lane, and bicyclists and cars do share the road. They favor polite conversation over anything that might sound the slightest bit overbearing.

Minnesota Nice, however, does have its distinct disadvantages.

Compare Minnesota Nice to the Medical Priority Dispatch System™ (MPDS™) PAIs and the Academy’s compliance standards. What you say exactly is important. Case Entry, Key Questions, and PAIs are precisely scripted and cannot be altered for the sake of cordiality. “Don’t go out of your way on my account, but if it’s no problem, please listen carefully to the following instructions” won’t win performance points for an EMD handling a childbirth and delivery call.

“Calltakers here for a long time took that hard,” said Chuck Kaufman, Director, Allina Health Emergency Medical Service communication center in St. Paul, Minn. “Their Minnesota Nice was working against them.”

And that’s no exaggeration (after all, Minnesotans don’t exaggerate except when it comes to the walleye that got away).

**Wobegonics**

Garrison Keillor’s “A Prairie Home Companion” coined the term “Wobegonics” to explain the language of Minnesota Nice, which includes “no confrontational verbs or statements of strong personal preference.” Minnesota Nice makes it hard to confront and to be confronted.

Going back to childbirth and delivery, the following EMD to caller exchange in the PAI sequence might not be too far off (adopted from Wobegonics):

**Caller:** You say I should get some dry towels and blanket to wrap the baby?

**EMD:** Yes, what kind do you have?

**Caller:** I got light cotton, I got flannel, I got fleece.
EMD: Sure, any of those would work.
Caller: Which kind do you think the baby would like?
EMD: Oh, use any one of them. I don’t think the baby will mind.
Caller: What do you think of the fleece?
EMD: Sure, that’s fine.
Caller: Or would you rather I use the flannel?
EMD: Either one. Whatever’s easiest.
   It’s little wonder the ACE process took Allina Health communications nearly four years to achieve.
   “We struggled,” Kaufman said. “I wasn’t always sure we could do it.”

Driving forces
   The center’s management team implemented MPDS in 1992 and built the protocol into the center’s CAD system. Team members asked the questions and provided assistance. Their compliance, however, was short of perfect. In 2003, the center received a makeover (new CADs, 800-megawatt radio system, and ergonomic workstations, to name a few things). Kaufman thought about applying for ACE, but it wasn’t until 2010 that timing seemed entirely right.
   “We hired Victoria Peckman, and she told me we should do it,” Kaufman said. “I was willing to give it a try. She would be the driving force.”

   Peckman is the Allina Health EMS Technology and Emergency Planning Specialist. She previously worked at Life Link III, an air ambulance company based in Minneapolis, which is accredited by the Commission on Accreditation of Medical Transport Services.
   She knew what accreditation could mean to an organization, from ground level to management, through a collective vision supported by policies and procedures.
   “They were doing a great job,” she said. “Accreditation would solidify their direction.”

   At Allina, individual or team performance was not the prominent obstacle. Rather, the major hurdle was an EMD’s reluctance of sounding bossy or condescending. The EMDs tended to add a more conversational tone. They took pride in their congeniality.

   That’s not the way protocols work to gather information and provide over-the-phone assistance until response arrives on scene.
   “Protocols aren’t meant to be nice,” Peckman said. “Protocols are direct, and people who have been here a long time wanted to be nice about it.”

   Peckman, however, managed to work the Minnesota Nice to her advantage.
   As a native of the state, Peckman is well aware Minnesotans don’t like to draw attention. They are reticent to talk about personal success, and they don’t like making a fuss. They love local sports and share a Minnesota-style of socializing, particularly around meals. Minnesotans tend to stay in the same towns and jobs surrounded by the people they know and trust; the comm. center staff averaged more than 10 years on the job.
   They stick together.

   Peckman and others on the leadership team—Communications Manager Angela Fox, Training and QA Specialist Katie Paulson, and Kaufman—started slowly. They did not push; they encouraged. They broke protocol into learning sections: Case Entry, Key Questions, Chief Complaints, PAIs, PDIs, and Determinant Descriptors. Moving from one section to the next required proficiency.

   “We wanted to get people into this,” Peckman said. “We looked out for the good of the entire staff because, as we agreed from the start, we didn’t want anyone to lose their job over this.”

   They took a few chances. They announced posting high compliance call congratulatory signs on EMD lockers. During early PAI compliance struggles, they snubbed the signs. No one wants to stand out. Once the first sign went up, however, the field was wide open. It was OK to stand out if everybody else did.

   The winner of the monthly high compliance drawing could pick from a list of prizes, with lunch out with the leadership team taking top choice. They established a goal line and slam dunk performance games. A three-minute motivational video recognized the hard work of EMDs, and EMS officials from outside the comm. center pitched in. The EMS Medical Director discussed a more aggressive start to CPR, reminding EMDs that they couldn’t hurt people by starting CPR.

   “They were doing this for the patient,” Kaufman said. “They turned the corner. They got on board to do their part.”

   The Allina Health EMS communication center was officially accredited on April 9, 2015, in enough time to attend NAVIGATOR 2015. EMD James Domeier, a Specialist First Class with the Minnesota Army National Guard, was recognized as the IAED™ Dispatcher of the Year.

   Better news? “We did not lose a single person through the entire process,” Kaufman said.

   The EMDs now go to leadership for assistance. Paulson keeps an open-door policy.

   “She’s the epitome of Minnesota Nice,” Kaufman said. “No one ever leaves her office feeling bad.”

About Allina Health
   Allina Health has 30,000 employees covering a 1,600-square-mile service area (120 communities), with a resident base of about 1 million people. The 32 full-time calltakers/dispatchers handle 100 interfacility and 300 911 medical calls a day, and about 60 percent of the medical calls require PAIs.

See page 46 for more about Chuck Kaufman.

Source
The Joint Emergency Services Control Centre (JESCC) consolidation project is one for the records. JESCC, situated in the Bailiwick of Guernsey in the British Channel Islands off the coast of Normandy, France, consolidated 14 processes from four separate control rooms using management information systems as varied as handwritten logs to underused CAD systems. No reference manuals existed. Dispatchers participated in creating and adapting to policies and technology in a consolidated communication center. Recruits were encouraged to speak from their perspective. A few left; most stayed.

The result was exactly what JESCC was looking for.

“Were developed collaboration and buy-in,” said Michael Burrows, Project Manager. “The consolidation enabled new ways of thinking. Service to islanders and visitors has improved. Lives have been saved.”

Now, in one room and under one roof at the Guernsey police station, dispatchers from Guernsey Fire and Rescue Service, St. John Emergency Ambulance and Rescue Service, and the Guernsey Police Department provide emergency call assistance for fire, police, and ambulance, and initial call handling for the Coast Guard. They also answer calls for service.

Their collaboration is as enviable as the place where they live.

Guernsey is a paradise of stunning scenery, clear water beaches, and breathtaking cliff walks along paths overlooking the English Channel. The island is 70 miles south off the coast of England and 30 miles from the French coast. It is the largest (24 square miles) and most populous (63,000 people) of three jurisdictions comprising the Bailiwick.

**Five-year plan**

The consolidation and subsequent technology advances worked in tandem with recommendations in a five-year plan (2016–2021) to improve Guernsey’s ambulance service. The report included a proposal that St. John Ambulance & Rescue Service (SJARS) participate in plans to develop a joint emergency control room with police and fire rescue. Since 1938, SJARS has been the sole provider of professional ambulance service. Another section of the report advised dedicated local control staffing with appropriate call-taking and system training.

The consolidated center incorporates IT infrastructure, an integrated command structure, and streamlines processes to reduce the time between receiving a call and mobilizing the appropriate responders. EMDs using the Medical Priority Dispatch System™ (MPDS™) ask questions, send response, and give PDIs and PAIs while emergency services crews are en route.

Standing command decisions built into CAD processes allow recruits with no experience to operate effectively after a short training period. Staff has access to call recordings and radio traffic for quality improvement and assurance purposes.

Prior to JESCC, a simple search and rescue mission involving air, sea, and land assets required the completion of six separate incident logs. The same incidents are now handled using one time-stamped incident log. A single automated messaging system alerts volunteers and on-call personnel, replacing manual actions, and cloud-based applications reduce the task’s time to less than two minutes.

The project demonstrates how the right blend of effective management, people, technology, and clear operational vision can pull teams together to produce an award-winning formula, said Terry Coule, Manager, JESCC.

“The project professionalized the call-handling and dispatch process,” Coule said. “By focusing on our goal to improve service, we developed a strong sense of inclusion and pride in achievement.”

JESCC received the 2016 IT Industry Award for the best Not For Profit IT Project sponsored by the (U.K.) Chartered Institute for IT.
spreading like fire

MAINE GOES EFD
Fire Protocol spreads across the state

Audrey Fraizer

There’s nothing like momentum to keep the protocol rolling.

At least, that’s the case with going statewide in Maine with the Fire Priority Dispatch System™ (FPDS®) after seven years of uniform use of the Medical Priority Dispatch System™ (MPDS®).

“State regulators chose the EFD as the definitive application based on the success of MPDS,” said Stephan Bunker, former operations manager of Maine’s Emergency Services Bureau (E9-1-1) and strong advocate of the International Academies of Emergency Dispatch® (IAED™). “The use of protocol was not a new concept.”

Familiarity of PSAP staff with the EMD Protocol system and the QA system also allowed a fast-track approach easing the adoption of EFD. A PSAP employee familiar with EMD software would have an easier transition to the EFD software. Partners (Priority Dispatch Corp.® and Maine’s E9-1-1 Bureau) adopted the same plan, with lessons learned from the previous endeavor in 2009.

Maine legislated EMD on a statewide basis in January 2007, leaving system choice to individual centers. In 2010, the law changed to specify MPDS. In addition, the state mandated the corollary quality assurance/quality improvement (QA/QI) program. All dispatchers in Maine’s 33 PSAPs were certified EMD, and the managers took on the dual responsibility of QA/QI training and certification. All centers are meeting ACE QA/QI standards, and Bunker is encouraging accreditation. Due to ongoing consolidation, the number is at 26 PSAPs.

Rather than expecting agencies outside dispatch to simply roll with FPDS, Bunker and PDC™ consultants held “intensive kick-off” meetings to introduce protocol. They explained what to expect including the basics: EFDs would ask Case Entry questions to determine the type of emergency, followed by Key Questions to gather specific information, and give PDIs to guide the caller in preparing for on-scene arrival and PAIs to provide specific guidance, such as escaping from a sinking vehicle. The EFDs would be trained and certified.

They also dispelled common misconceptions involving protocol. There was an additional myth dispelled: Protocol would slow down dispatch times, and statistics proved otherwise.

For example, they countered a mistaken perception among some that EMDs and EFDs tell field personnel how to respond to a medical or fire emergency, respectively. That’s not true, they explained. Rather, response assignments in Maine are still governed by either service-level policies or relevant state board approval.

A third lesson was allocating more time up front to communication center staff and synchronizing training and activation.

Training is incremental according to geographic region, and the “go-live” dates correspond to the training schedule. The first set of three centers went live during the first and second week of December 2016, and the final set of five centers are slated to go live in early 2018. PDC trainers are present on the go-live day.

“There’s that great anticipation of who is going to take the first call,” Bunker said. “It’s thrilling to see the complete dispatch process I’ve watched from conception.”

Finally, Bunker made sure the entire process was understood and realized according to the Maine Board of Emergency Medical Services and PDC approved standards.

Each state-licensed center is required to organize a Dispatch Review Committee and Dispatch Steering Committee, and complete a set number of case reviews each month. QA and case review begins immediately upon respective implementations. Oversight committees are assigned to guide and review each stage. An orientation geared to rank and file firefighters explains the process and benefits of using protocol.

Majority funding comes from the state 911 surcharge. Funding covers protocol, ProQA® software, certification courses, QA, and AQUA®.

Bunker said the effort advances Maine as “a national leader in the establishment of best practices.”
Opioid addiction and its consequences made Dan Snarr an outspoken critic of an epidemic keeping a stranglehold on the United States. And it’s a position that’s neither enviable nor expected, considering the personal toll on his family and his religion. Snarr is a Mormon, which is relevant to his story. He is a high priest in The Church of Jesus Christ of Latter-day Saints (LDS), a faith that spurns the use of drugs and alcohol.

Snarr’s son Denver, also a devout member of the LDS church, was only 25 when he died from a prescription overdose in 2005. Doctors had prescribed painkillers following surgery for an injury caused while playing for the Murray High School rugby team, and the prescriptions continued for each subsequent injury the athletic Denver experienced in his young adult life.

“He kept getting hurt,” said Snarr, former mayor of Murray, Utah (USA), a suburb directly south of Salt Lake City. “After his third major surgery, he was hooked. He was doctor shopping.”

The Snarr family tried every avenue available to help Denver. They met with elders from their tight-knit LDS community. They went to family counseling. Denver voluntarily attended an addiction recovery program and was taking methadone to wean himself away from the drugs. They talked to him about the dangers and reassured him.
“We said repeatedly how much he was loved,” Snarr said. “We assured him that the addiction made him no less in our eyes.”

Denver died of a suspected overdose of methadone and sleeping pills hours after telling his father he was getting off the drugs. He died before help arrived and nearly a decade before naloxone—a medication that can reverse an opioid overdose—was accessible outside of EMS.

“There’s a chance he could have been saved,” Snarr said.

Instead, he died at the crux of an epidemic.

According to the Centers for Disease Control and Prevention (CDC) (2015):

• Heroin and prescription painkiller abuse, a class of drugs known as opioids, caused more than 50,000 deaths from drug overdoses in the U.S.
• Heroin deaths rose 23 percent in one year, to 12,989. Deaths from synthetic opioids, including illicit fentanyl, rose 73 percent to 9,580. And prescription painkillers took the highest toll.
• Abuse of drugs like Oxycontin and Vicodin killed 17,536 people, an increase of 4 percent.¹

By comparison, the number of people who died in car crashes was 37,757, an increase of 12 percent; gun deaths, including homicides and suicides, totaled 36,252, up 7 percent. From 2000 to 2014 nearly half a million people died from drug overdoses and, by the latest statistics, 78 Americans die every day from an opioid overdose.²

Utah ranks fourth highest per capita in the nation for drug overdose deaths, a problem state officials are addressing through legislation, safe drug disposal campaigns, and, recently, authorizing pharmacies to dispense naloxone without a prescription.

What is an opioid?

Opioids are a class of drug used to reduce pain. Prescription opioids are used to treat moderate to severe pain. Common types are oxycodone (OxyContin), hydrocodone (such as Lortab and Vicodin), morphine, and methadone. Fentanyl is a synthetic opioid pain reliever. It is many times more powerful than other opioids and is approved for treating severe pain. Heroin is an illegal opioid. From 1999 to 2013, the amount of opioids dispensed in the U.S. nearly quadrupled.

Oxycodone is a semi-synthetic opiate developed in 1916 as an effort to find non-addictive alternatives to narcotic drugs (morphine and heroin), which were commonly used in medicine before and during World War I. Like all opiates, oxycodone works by binding to opioid receptors in the brain and spinal cord for relieving pain and, at higher doses, for a euphoric effect.

In the past, oxycodone and other opiate drugs were prescribed sparingly and mainly for short-term pain. However, changes to government recommendations and aggressive marketing by pharmaceutical companies led to a dramatic increase in the last 25 years in prescriptions of oxycodone for long-term use in patients with chronic pain.³

Preventive and lifesaving strategies

Naloxone

Naloxone is an antagonistic medication that saves lives by counteracting the effects of opioid overdose. First cited in 1961, it was not the first and only medication to counteract the effects of an opioid overdose, but it was considered a medical breakthrough in reversing respiratory depression common in overdoses of synthetic and natural opioid related substances.⁴ In 1971, the Food and Drug Administration (FDA) licensed naloxone for opiate overdoses by intravenous or intramuscular injection, stating that access to the medication would require a prescription from an authorized health care provider. The FDA approved an intranasal naloxone applicator in November 2015.

A study involving systematic review of overdose prevention programs (OOPPS) that include the distribution of naloxone clearly supports the drug’s effectiveness:

Demonstration of how to administer naloxone
Naloxone was used successfully by participants in all but one reviewed study, for a total of 1,949 reported naloxone administrations across 18 programs. Eleven studies reported 100% survival rate post-naloxone administration; the remaining articles reported a range of 83% to 96% survival.

Paramedics arriving on scene can administer naloxone or, ideally, someone on scene can administer it. The study cited also provided evidence suggesting that bystanders (mostly opioid users) can and will use naloxone to reverse opioid overdoses when properly trained.

The Medical Priority Dispatch System™ (MPDS®) v13.0 established Post-Dispatch Instructions (PDIs) in Protocol 23: Overdose/Poisoning for both intramuscular and intranasal delivery of naloxone. The EMD provides the PDIs when the initial request is to help the caller administer naloxone and in situations in which the patient’s condition worsens during the call (becomes not alert or unconscious).

Callers in the Boston, Massachusetts (USA), area may soon have easier access to naloxone when reporting a drug overdose to 911 through an online PSAP registry of publicly available naloxone for bystander administration.

Dr. Scott Goldberg, EMS Director in the Emergency Department at Brigham and Women’s Hospital in Boston, likened the program to community AED access. In case of a sudden cardiac arrest, dispatchers at many 911 centers throughout the country can locate the closest publicly available AED through an online registry and provide that information to the caller while at the same time dispatching EMS and providing bystander CPR instructions.

Goldberg said the proposal comes in response to the growing opioid crisis.

“The number of overdoses keeps climbing, and the severity is increasing as the drugs get stronger,” Goldberg said. “In a heroin overdose, we have minutes to reverse the effects. For fentanyl, it’s a matter of seconds.”

While logistics are in the planning, Goldberg said surveillance can provide statistics for optimal public access, such as in areas showing the highest density of overdose calls to 911 and EMS data on emergency overdose response.

Faster access to naloxone doesn’t solve the drug problem, Goldberg said. But it’s one of several measures to curb the alarming increase in death rates associated with opioid overdose.

“Drug addiction is a disease,” Goldberg said. “We’re trying to get naloxone in the hands of someone who can help as fast as possible in an overdose situation.”

Massachusetts is also one of more than two dozen states with a Prescription Drug Monitoring Program (PDMP). PDMPs also identify “doctor shopping” through reporting systems and surveillance to identify irresponsible prescribing.

PDMPs are another tool to fight the epidemic, Goldberg said.

“We’re increasing resources,” he said. “We’re increasing public awareness. This is not an easy problem to be solved, but hopefully things will get better through multiple approaches.”

Surveillance

Surveillance and multi-agency cooperation using and sharing CAD and electronic patient care reporting (ePCR) data is a strategy with the persistence to escalate the war against opioid abuse. Among other benefits, such as allowing clinical distinction at the onset of a 911 call to quickly identify an opioid overdose, the strategy can prevent abuse through detecting points of sale for law enforcement and encouraging individuals to seek treatment in the recovery from opioid dependency.

FirstWatch, a data-gathering company headquartered in Encinitas, California (USA), was established in 1998, almost accidentally, when Todd Stout devised
an algorithm to collect information for the EMS System in Kansas City, Missouri (USA) (then MAST). The company, independent of the ambulance service, now provides its expertise to more than 350 clients in North America.

FirstWatch monitors data in real time and replaces the tedious and often inaccurate process of manually reviewing all records in relation to an incident or situation. Clients choose the parameters, and FirstWatch models the solution from best practice experience and asking what might be different for the specific client. Triggers are defined to draw the raw data from sources, including ProQA® and electronic Patient Care Records (ePCR), and the data is analyzed to complement pieces of the query.

The process is dynamic, said Stout, a former MAST Paramedic.

“Data gives us patterns,” he said. “It can create a picture of what’s going on at the local level. It tells us where things are happening.”

The real-time gathering and surveillance make FirstWatch an ideal tool in the battle to prevent opioid use and abuse, from the point of sale to helping an overdose patient. The data also focuses efforts of law enforcement, social workers, and others relevant to the issue.

“FirstWatch can adapt surveillance to the community,” Stout said. “We also take away the burden of gathering data so that the agency can concentrate on what needs to be done.”

ProEMS, in Cambridge, Massachusetts, and Richmond Ambulance Authority (RAA), Richmond, Virginia (USA), are among agencies using FirstWatch algorithms in the communication center and the field to detect opioid overdoses and share that information with local agencies that can intervene in real time.

RAA partners with the Richmond Police Department Narcotics Task Force to confirm an Emergency Dispatcher’s interpretation of a call in the communication center with those actually occurring in the field.

The CDC awarded $12.8 million in grants to 12 states to better track opioid-involved overdoses over a three-year period starting in fall 2016.

“It allows us to look at the point of OD, which we know, versus the suspected point of sale,” said Rob Lawrence, RAA Chief Operating Officer. “They usually have some intelligence, but more often than not, sale and consumption are not far apart.”

RAA uses FirstWatch to identify clusters of real-time activity and syndromic activity. From the data, RAA can calculate total numbers of potential opioid overdoses from clinical records in periods of high activity and monitor the number of naloxone doses administered per patient.

“We are seeing the more complex the mix, the more naloxone needed,” Lawrence said. “At this point [due to lab backup] we have no definitive indication of what is in the heroin mix, but what we have seen after the fact is that more fentanyl, the more naloxone required.”

They also flag patients who refuse transport to encourage medical attention, at some point, and recovery.

“We work hard to get them help,” Lawrence said.

Good data is everything, according to Bill Mergendahl, Chief Executive Officer, ProEMS. Data FirstWatch pulls from multiple sources gives an in-depth view of their system, and the data can be segregated to support different outcomes. Triggers to collect data specific to opioid use depend on a list of customized symptomatic chief complaints taken from a caller’s narrative.

Real-time information geocoded to the caller’s location initiates response. ProEMS shares clinical overdose data with Cambridge Public Health Department and tracks calls according to positive response related to naloxone administration.

Tracking has multiple benefits. It can target higher users of emergency services and signal a potential medical situation based on patient history. Data can hasten intervention.

In an opioid emergency, ProEMS can provide paramedics trained as recovery coaches. The coaches can provide the patient with contact information and a referral.

“Like everyone in EMS, we are frustrated by the revolving door,” Mergendahl said. “We have the resources to make an impact and help patients who are trying to recover.”

The system’s not failproof, Mergendahl said. For example, EMS personnel cannot identify every overdose, nor can they save every patient experiencing an overdose. But it’s a start that brings with it the opportunity to exchange information and strategize.

“We learn from collaboration,” Mergendahl said.

Legislation

State and federal regulations affect the delivery of patient care and the availability of treatment options.

The Federal Comprehensive Addiction and Recovery Act (CARA), signed in July 2016, includes provisions to update best practices for pain management and pain medications, study the prevalence of neonatal abstinence syndrome, authorize funds for expanded treatment, and train law enforcement officers and first responders in the use of naloxone.
The CDC awarded $12.8 million in grants to 12 states to better track opioid involved overdoses over a three-year period starting in fall 2016. States will use the program funds to increase the timeliness of reporting nonfatal and fatal opioid overdoses and share their data to improve multi-state surveillance and response.7

The grant was in addition to $18 million Congress appropriated to the CDC for funding the Prescription Drug Overdose: Data-Driven Prevention Initiative. The three-year grants were awarded to 13 states and the District of Columbia and target development of a web query system that provides data on prominent risk factors for opioid overdoses and drug overdose mortality data across the U.S. This data dashboard will also help track the progress of U.S. states implementing prevention programs and policies versus those that are not.8

According to recent figures, 37 states and the District of Columbia had enacted some form of a Good Samaritan or 911 drug immunity law. In general, these laws provide immunity from supervision violations, low-level drug possession, and use offenses when calling 911 for assistance when experiencing an opiate-related overdose, as either a bystander or the individual taking the drug.9

Turning pain into action

Snarr turned the pain of Denver’s death into action. He is a community volunteer, regularly finding what needs to be done, particularly by the elderly, such as replacing water heaters, shoveling snow from driveways, or running errands. He is an “ear” for LDS families experiencing drug abuse problems within their homes, and he is an outspoken advocate of discussing the drug problem to promote legislation and prevention.

“I talk to people all the time,” Snarr said. “They don’t know what to do. We have to get to the root. Unless we do, we will never know how to address the problem effectively.”

No matter the basis of addiction, Snarr grows impatient waiting for someone or something to get to the bottom of the problem and work up from there.

“It’s not only about me and my son,” he said. “It’s about these young people and adults who could be in the same situation trying to cope with pain and suffering. It saddens me.”

Sources

6. See note 5.
AN AVERAGE DAY IN THE U.S.

650,000+ opioid prescriptions are dispensed.

3,900 people start nonmedical use of prescription opioids.

580 people start heroin use.

78 people die from an opioid-related overdose.
One (made-up) family’s trip keeps dispatchers busy

Josh McFadden
Illustrated by Erin Salazar

Studies have shown that one in five vacationers suffers some sort of injury or mishap on a trip. As a dispatcher, taking calls from people who are away from home on vacation is not a rare occurrence, and they present unique challenges. These callers can be in unfamiliar areas and are sometimes far from help.

The following story tells the tale of the fictional Malchance family, which embarked across the United States on a long-planned, highly anticipated vacation. Let’s see what misfortunes befall the family and which Priority Dispatch protocols emergency dispatchers would have used in response to the family’s calls for help.

Boat incident in San Diego

Kevin Malchance loaded his family of five into the minivan, leaving their Phoenix, Arizona, home for a monthlong voyage across the U.S. Kevin and his wife, Nancy, had selected 14 destinations, with the first in San Diego, California. They would then head north and then east to the opposite side of the U.S. before ending at the Grand Canyon, a few hours north of their home. Nancy wanted to fly from place to place due to her husband’s speeding habit and tendency to get into fender-benders, but Kevin convinced her that traveling by car would give the family a better experience.

The Malchances were novices when it came to boating, but once in San Diego, Kevin insisted on taking his wife and their three children out on the open water of the Pacific Ocean. Kevin found what looked like the perfect spot, rented a modest speedboat, and hit the choppy water.
But Kevin was worse at driving a boat than he was at driving a car, and after just 10 minutes on the sea, he lost control of the craft and rammed it into another speedboat. The driver of the other boat took off without a word, leaving the Malchances alone in the open water. The impact sent little 5-year-old Bobby into the water (fortunately, he was wearing a life preserver, and he was pulled out). Susie, age 15, banged her head, and 9-year-old Steven had some cuts on his leg and lost his iPod to the ocean. The wreckage was severe, and their boat was inoperable. After checking on his family, Kevin called 911.

Upon taking the call and hearing Kevin’s story, the dispatcher correctly turned to the Fire Priority Dispatch System™ (FPDS®) Protocol 73: Watercraft in Distress/Collision. The dispatcher asked Key Questions, including, “What is the exact location of the boat?” and “What type of body of water is this?” Kevin answered, and the dispatcher immediately considered Rule 1: Seemingly benign water emergencies may turn into immediate life threats due to changes in weather, tide, and location.

The dispatcher appropriately went through the rest of the questions and properly coded the call as 73-D-4Y. The dispatcher then went through the seven Post-Dispatch Instructions with this protocol, such as PDI-e: If it’s safe to do so, anchor your boat. Help arrived shortly thereafter.

Unhappiness in the Happiest Place on Earth

Undeterred by their oceanic wreck, the Malchances were treated for minor injuries, and the family was off the next day for Disneyland, in Anaheim, California. What could possibly happen there?

The family spent a delightful day in Disneyland and returned the following day for an encore. Things were going magically until a discourteous man and his young daughter cut in front of Nancy as she stood in a long line with Susie to get a picture taken with Queen Elsa from the movie “Frozen.” A verbal shouting match ensued, in which Kevin intervened, and the two men nearly exchanged punches.

Cooler heads seemed to prevail, and the rest of the day went as planned. However, as the family reached the parking garage on its way out of the park, the same hotheaded line-cutter darted out from a doorway, grabbed Kevin by the shirt collar, and shoved a gun into his chest!

Terrified but alert, Nancy screamed at Susie to run, and she grabbed her two younger children and sprinted to the safety of a stairwell and called 911. The responding dispatcher calmed the frantic wife and gathered the necessary information to move to Police Priority Dispatch System™ (PPDS®) Protocol 106: Assault/Sexual Assault. The dispatcher began with the critical first Key Question, “Were weapons involved or mentioned?” Nancy mentioned the gun, and this, along with her other descriptions of the incident, helped the dispatcher code the call as 106-D-4G: Gun.

One of the four Post-Dispatch Instructions told Nancy to “keep very quiet and stay out of sight.” She waited nervously for the police to arrive, not knowing what was happening with her husband. Sensing her anxiety the dispatcher provided help and comfort by offering Case Exit Instructions “An officer will be dispatched as soon as possible” and “I’ll stay on the line with you as long as I can.” Fortunately, the authorities arrived in time to apprehend the man and prevent Kevin from being seriously harmed.

Sin City situation

Shaken but determined, the Malchance family made the four-hour drive to Las Vegas, Nevada. Vegas isn’t exactly an ideal spot for children, but Kevin was intent on showing his family the glitz and glitter of the Las Vegas Strip.

Impressed with the dazzling buildings but hungry for something more than homemade sandwiches, the family visited the all-you-can-eat buffet at the Circus Circus casino. The family was soon calling 911 for the third time on the trip when a Swedish meatball became lodged in Bobby’s throat.

After being asked Medical Priority Dispatch System™ (MPDS®) Case Entry Question 3, “Okay, tell me exactly what happened,” Kevin fearfully relayed the emergency, including the fact that Bobby was unconscious. The dispatcher followed up with Case Entry Question 3a, “Is he breathing or coughing at all?” Kevin’s answer of “no” automatically signaled the dispatcher to code this call as 11-E-1. The dispatcher also instructed Kevin not to slap Bobby on the back.

Because consciousness and breathing questions were already answered, the dispatcher didn’t need to ask them in the Key Questions on Protocol 11. The dispatcher went to Post-Dispatch Instructions and then to Pre-Arrival Instructions in Protocol B: Airway/Arrest/Choking (Unconscious) – Child 1–7 Yrs. The dispatcher instructed Kevin on steps 1 and 2. When Kevin reported that there was nothing in his son’s mouth, the dispatcher moved to steps 5 and 6 where chest compressions were explained. Kevin understood the instructions and then followed the directions for CPR plus Mouth-to-
Mouth in steps 7 and 8. He continued the breaths and pumps until paramedics arrived. Bobby started breathing and regained consciousness shortly thereafter.

**Lost in the desert**

A relieved family had young Bobby back in his full capacity after the boy made a complete recovery from the terrifying event. Kevin thought the best way to put the near-tragedy behind them would be to enjoy a nice hike and fresh air at Arches National Park in the southeastern Utah desert.

The family found an off-the-beaten path trail but became lost when Kevin suggested leaving the marked trail and venturing over to some interesting rock formations. With no food and very little water, the family members began to suffer under the draining sun. Steven was in the worst shape. The exhausted boy's skin was turning red and burning hot. He had no energy to do more than lie against a large rock that provided a tiny amount of shade.

With a rare stroke of luck, Kevin noticed he had cellphone coverage, so he called 911 once more.

The responding dispatcher determined through Case Entry to use Protocol 20: Heat/Cold Exposure. The dispatcher paid careful attention to Axiom 1, which states, “Because a patient has a problem in a hot or cold environment does not mean the problem was caused by the environment. Heat or cold extremes may trigger other medical problems.”

The dispatcher skipped Key Question 1, “Does he have chest pain or chest discomfort?” because Kevin reported the victim was under the age of 35. The dispatcher moved to Key Question 2, “Is he completely alert?” to which Kevin answered “no” to Key Question 3. However, the worried father did report that his son's skin color had changed in response to the dispatcher asking Key Question 4. The gathered information told the dispatcher that this would be a DELTA-level response.

It took a few long, tense hours for help to find the Malchances. During the wait, the dispatcher instructed Kevin in PDI-b to “remove (Steven) from any sources of heat” and to “remove his outer clothing. Apply cool water to his entire skin surface while fanning him.” Search and rescue located the Malchances, and Steven spent the night in the hospital but was OK.

**A word about remote rescue**

Hearing from ill-prepared vacationers in remote areas is not uncommon. Frances Jimenez, 911 Programs Manager, El Paso County 911 District, El Paso, Texas, for example, says the calls her agency receives from hikers and bikers in rural and remote areas can be challenging.

“Callers are almost always ill-prepared, with little water, no sunblock, and poorly charged cellphones,” she said. “Common calls we receive are due to heat-related illnesses, traumatic injuries, or simply people that get disoriented or lost.”

Jimenez added that environmental challenges, such as where our fictitious Malchance family got lost, make determining location and successfully reaching the victims difficult.

“The callers usually cannot tell us where they are, so it is up to the calltakers and dispatchers to find them based off of their CAD map and other landmarks,” Jimenez said. “Mountain Rescue and/or Special Angle Rescue teams are sometimes called out to assist if the caller is not accessible due to mountainous or dangerous terrain.”
Susie was OK, but things got scary for the family two days later in a New York City subway train when electrical issues started a fire. Several trapped passengers called 911, and the FPDS was used to code the call as a 75-D-3S. Help soon arrived, and no major injuries resulted.

Breathing problems and a body
How much abuse could one family take? Nancy and her three beleaguered children begged to go straight home, but Kevin moved the family onward, reasoning that they might as well finish the trip after everything that had happened.

In the nation’s capital of Washington, D.C., Kevin’s asthma flared up while walking from site to site. It was so bad that Nancy called 911, the number the family had grown so accustomed to dialing.

Kevin was alert but was having a hard time speaking between breaths. His color wasn’t changing, but he didn’t have an inhaler with him. The experienced dispatcher taking the call knew that the statement in Rule 2 of Protocol 6: Breathing Problems, “Breathing problems are potentially life-threatening until proven otherwise,” meant this call could go in any direction.

The call was accordingly coded as 6-D-2A, based on the information given during Key Questions. Paramedics arrived and gave Kevin an inhaler just as he was running out of breath.

The family avoided injury or accident at the next stop at Great Smoky Mountain National Park in Tennessee. However, the five weary travelers did stumble upon a dead body on a hiking trail. There appeared to be a gunshot wound to the chest. Using Protocol 112: Deceased Person, a dispatcher got police to the scene.

A brief discussion on phones and PAIs
The Malchances were able to get out of the Smoky Mountains without any trouble, but had they been stranded much like they had been at Arches National Park, the situation would have been more dire.

Cellphone coverage in mountain areas is erratic at best, making communication difficult for both the caller and the dispatcher. John Hinkle, Supervisor/Trainer with Gallatin County (Montana) 911, said dispatchers need to be careful about how long they’re on the phone with callers in remote locations, as callers’ cellphone battery power can diminish quickly. Instead, his agency will periodically call back the callers while they’re waiting for EMS. He also said Pre-Arrival Instructions can be helpful in providing comfort when rescue is far off.

“Making sure we provide DLS Instructions helps the injured and also reassures them and gives them the sense they are being helped,” Hinkle said. “It eases their concerns or fear. Our search and rescue folks do a lot of follow-up with them mostly by text message because it saves battery life and because of cellphone reception it might be the only way to effectively communicate with them.”

Let it end!
Enough was enough for the Malchance family. Seeing a dead body in the woods was the straw in a remarkably long line of horrible experiences on this ill-fated vacation. A unanimous vote confirmed that it was time to cut this nightmare short and return home. After all, the five family members were visibly traumatized and physically battered by what they had encountered.

Aside from getting a flat tire and hitting a deer, there were no further incidents on the way home. The Malchances at last pulled up to their home; it seemed like an eternity since they had been there. Kevin’s heart sank, however, when he noticed the door had been kicked in and a basement window was broken.

“Tell me this didn’t happen,” Kevin said as he sank into the seat of the car in complete exasperation.

Takeaways
If your center serves an area popular for tourist activity, you’re likely to receive calls from panicked vacationers. Because these callers are not in their usual element and may be in areas difficult for emergency responders to reach, there may be a heightened sense of urgency. Consider these points:

• PDIs and PAIs are critical in calming and reassuring callers.
• Be aware that vacationing callers will often be unfamiliar with their surroundings and may have difficulty identifying their location.
• Be familiar with Rules and Axioms.
• Be careful how long you stay on the line with callers who may be calling from rural or wilderness areas. It could be hours after dispatching crews before their arrival on scene, so you don’t want to risk draining a caller’s cellphone battery.
• Vacationers may be calling from difficult-to-reach areas where special rescue teams may need to provide assistance.
• Don’t take a vacation with the Malchance family.

Source
BEAUTY AND BEAST

Nature’s way can be scenic and deadly

Audrey Fraizer

Do you enjoy the beauty of the outdoors, yet avoid certain places due to the beasts that might lurk on the ground, in the water, or above your head? Does the sight of a snake coiled on a rock send you running in the opposite direction? Do you get rattled at the sound of a twig snapping while you’re hiking a trail in the woods posted with bear warnings? Do you refuse to swim in the ocean due to an overwhelming fear of a shark attack?

Whether these fears stem from nursery tales, someone else’s harrowing experience, TV shows, or actual encounters, it’s neither uncommon nor irrational. Human survival depends on wise choices, such as respecting a bear’s territory and brushing up on your bear etiquette. For some, fear escalates to phobic proportions that interfere with life and leads to total situational avoidance. The fear of animals, or zoophobia, and the fear of spiders, or arachnophobia, goes beyond a case of the willies.

Bad things, however, do happen, and it’s why every great emergency dispatcher answers calls equipped with protocols to help in the direst of situations.

Snakes

Of the 3,000 or more snake species that exist in the world, 600 are venomous and belong to three major families:
- Elapidae family, which includes the mamba, cobra, king cobra, and the coral snake;
- Viperidae family, which consists of vipers; and
- Hydrophidae family, which includes sea snakes, commonly found on sea coasts.

Venomous snakes produce toxins that destroy or alter normal cell functions. Elapid snakes release neurotoxins that damage the nervous system, leading to muscle paralysis and respiratory failure. A viper snake’s vasculotoxin damages blood components, leading to severe bleeding, thrombosis, and renal failure.1

While Australian snakes are viewed as the most venomous in the world, they are by no means the most dangerous. Only about a dozen of the estimated 100 species of venomous snakes in the country produce sufficient toxin in a single bite to be fatal to humans.2

Rattlesnakes are pit vipers and possess a heat-sensing pit located between the eye and nostril, which helps them track and hunt their warm-blooded prey. The western diamond rattlesnake is a pit viper that injects poison through long, hollow, hinged front fangs.

There are no universal distinguishing characteristics for telling a venomous snake from a non-venomous snake and, because all snakes have teeth, even the non-venomous snakes can cause anywhere from small to devastating injuries when biting their victims. For example, while pythons kill prey by constriction, their bite can transmit harmful bacteria. Depending on the snake’s size, a snake bite can leave a massive laceration requiring urgent medical attention.

Black bears

We grow up with bears in our literature, toys, and songs. “Goldilocks,” “The Bear Went Over the Mountain” folk song, Smokey Bear, “The Far Side” comic strip, teddy bears, and recent movie “The Revenant” have added to a perspective that embraces and fears the smallest and most common of bears living in North America. Are black bears the villains ready to pounce any human stepping into their territory? Do they look for a fight?

According to the Humane Society, the opposite is more likely. More suburban developments are encroaching on bear habitats, making it more likely for humans...
to see bears roaming neighborhoods and relying on a keen sense of smell (seven times greater than a bloodhound’s) to detect pet food, garbage, barbecue grills, and bird feeders—and once bears locate a food source, they remember where it is.3

The North American Bear Center claims that most attacks are defensive maneuvers and, generally, unprovoked predatory attacks in remote areas where bears have the least contact with people. According to their statistics, 750,000 black bears of North America kill less than one person per year on average.4

Sharks

Shouting the word “shark” clears out the surf every bit as fast as shouting “fire” clears out a crowded theater. These are words that often evoke frightening images and the flight, rather than the fight, reaction. In the case of a shark, the teeth feed our frenzy. Sharks may have up to 3,000 teeth at one time. The great white shark has bread-slicing-style serrated, wedge-like teeth that are effective at cutting off chunks of flesh for easy swallowing.5

According to the odds-makers, compared to a shark attack, you’re three times more likely to drown and 30 times more likely to be hit by lightning.6 But who thinks of odds when dorsal fins appear next to you in the water? That’s the image that turns blood cold.

And if things go south, the Medical Priority Dispatch System™ (MPDS®) is there to help.

Protocol 2: Allergies (Reactions)/Envenomations (Stings, Bites)

An envenomation is an injection of poison or other foreign substance by an animal, such as a snake, insect, or spider. Although a snake “bites,” Protocol 2 acknowledges the signs and symptoms of venomous bites analogous to allergies and, also, similar consequences if left untreated.

MPDS PDIs for a bite from an elapid snake (venomous snake having hollow, fixed fangs) were formerly the domain of the Australian version—and for good reason. In Australia, species of venomous snakes outnumber the species of nonvenomous snakes four to one. The largest, most dangerous species is the taipan, a tropical species that can reach a length of 11.5 feet. Several species of tiger snakes are more widespread and have particularly deadly venom. The death adders are viper-like elapids.

For snakebites in North America, identification of the type of snake will help determine which PDIs to give, with the primary distinction between elapid and non-elapid snakes. Venomous North American snakes of the non-elapid type include rattlesnakes, copperheads, and water moccasins, while the elapid varieties include the eastern coral snake, the western coral snake, and the yellow-bellied sea snake.

With snakebite incidents, there is the possibility that a dangerous snake is still an imminent threat. If there is a danger present at the scene, the EMD is directed to use X-9, advising the caller to stay calm and out of the snake’s way. The caller will be instructed to immediately tell the EMD when the snake leaves. A new PDI was added to Protocol 2 in MPDS v13.0: “(DELTA or CHARLIE) Tell her/him to lie down (sit if difficulty breathing) and not to stand or walk.” This is to avoid the rapid loss of blood pressure in cases of severe anaphylactic reactions. PDIs for elapid snakebites are:

• Keep her/him from moving around.
• (Keep the bitten limb down).
• (Bandage the limb from the area of the bite to the hand/foot, then back up to the body, snugly enough to allow one finger to slip between the bandage and the skin.)
• (Immovilize the limb by splinting if possible.)
• Tell her/him to keep calm.
• Do not move her/him at all.
• Wait there for the paramedics (EMTs).

For non-elapid snakebites, the caller should not allow the patient to move around. If possible, the bitten area should be placed below heart-level to minimize movement of the venom toward the vital areas of the body. Neither ice nor a tourniquet should be applied. If the type of snake is unknown, the EMD should give non-elapid snakebite instructions.

Protocol 3: Animal Bites/Attacks

The EMD first evaluates the patient’s condition through Case Entry Questions, including consciousness and breathing status, and then takes action. Though the typical scenario of an unconscious and not breathing patient would be handled on Protocol 9: Cardiac or Respiratory Arrest/Death, according to Case Entry Rule 2, “If the complaint description involves TRAUMA, choose the Chief Complaint Protocol that best addresses the mechanism of injury.”

MPDS Protocol 3 addresses a variety of animal-related injuries from large animals (such as sharks and bears) to EXOTIC animals (any animal that may be poisonous, dangerous, or whose risk is unknown).

In order to narrow down the type of incident, the first Key Question is “What kind of animal is it?” Often, this is already apparent from the caller’s description on
Case Entry. However, this question elicits a more specific response and serves as a safety net to shunt to Protocol 2: Allergies (Reactions)/Envenomations (Stings, Bites) if the caller identifies the source of the bite as an insect, spider, or snake, as emphasized in Rule 1. Otherwise, the EMD continues Key Question interrogation, collecting scene safety information—such as where the animal is now—and determining the patient’s condition: SERIOUS bleeding, alertness, body area injured, how recently the incident occurred, etc.

In an effort to prioritize the response, patients who have an arrest are assigned 3-D-1, and those who are unconscious are assigned 3-D-2.

It should also be noted that in MPDS v13.0, a new definition and Determinant Code were added to separate a MAULING (Savaging) from an Attack in progress to provide agencies an opportunity to assign separate responses for the situations. The Determinant Code 3-D-8 is assigned MAULING or multiple animals, and 3-D-9 is assigned Attack in progress. A MAULING (Savaging) is defined as “an attack that produces serious, multiple wounds or injuries, as opposed to a single or limited number of bites.”

After initiating the appropriate response for arrest/unconscious patients, the EMD should begin asking Key Questions 1–3 to get a basic description of the incident but then leave the interrogation to provide Post-Dispatch Instructions and go to the appropriate DLS Link to provide PAIs (Danger, Arrest, Control Bleeding, etc.) before responders arrive. For all other patients, the EMD should complete Key Questions.

When a patient in arrest also has SERIOUS bleeding—uncontrolled bleeding (spurting or pouring) from any area—Axiom 2 provides an explanation for which instructions take priority in best meeting the patient’s needs: “On certain Protocols [3, 4, 7, 17, 27, etc.], an arrest may have been caused by extremely SERIOUS hemorrhage. In these cases, controlling the bleeding before initiating CPR may increase patient survival.”

Control the bleeding

When it comes to tourniquets, EMDs are given this instruction on Case Exit: “If asked about applying a tourniquet, tell [the caller] to do what they think is best.”

If a tourniquet has already been applied, do not advise removing it.

Bystanders can help control the bleeding by using direct pressure; however, direct pressure should be avoided in the presence of visible fractured bone or foreign objects (such as fragments of shark teeth) to prevent further injury. In situations where direct pressure can be applied, the bystander must be prepared to hold it in place continually.

Because shark attacks most likely occur at a beach where others are present, a bystander should be able to follow the EMD’s instructions to grab a beach towel and put pressure directly on the wound. The towel holds the blood on the wound, promoting clotting. If the towel soaks through with blood, the bystander is told to add another layer. No matter how blood-soaked the towels become, the bystander should never peel them off or try to look at the injury; removal disrupts the clotting process and allows bleeding to resume.

Monitor breathing, CPR

If the patient’s breathing is absent or ineffective, the EMD links to PAIs that will direct the caller in administering CPR.

Once responders arrive on scene, they will administer to the patient in preparation for transport to the closest trauma center for examination and treatment of injuries.

The AGONAL BREATHING Detector symbol (purple question mark) next to Case Entry Question 6 directs the EMD to consider using the Determining AGONAL BREATHING tool located in the Case Entry Additional Information. It is important to understand that it is not appropriate to use this tool when breathing is UNCERTAIN (second-party caller is unsure) or when breathing has already been determined to be INEFFECTIVE. This tool should only be considered when the caller reports that the patient is breathing but you have reason to suspect that the patient may not be breathing effectively. In these situations, the Determining AGONAL BREATHING tool can help you determine whether the patient may be demonstrating AGONAL BREATHING. It is unlikely that the AGONAL BREATHING tool would be used at any point before CPR; however, it is used as part of CPR if the patient starts breathing.

Sources
YOU MUST BE MEDICAL CERTIFIED TO TAKE THIS QUIZ

Answers to this quiz are found in the article “Beauty And Beast,” which starts on page 30. Take this quiz for 1.0 CDE unit.

1. Pit vipers possess heat-sensing pits that aid in:
   a. maintaining body temperature.
   b. hunting and tracking prey.
   c. finding pits concealing small prey.
   d. environmental camouflage.

2. The North American Bear Center claims that black bear attacks are predominantly:
   a. meant to secure food.
   b. defensive maneuvers.
   c. attributed to poor eyesight (and inability to distinguish prey).
   d. motivated by aggressive natures.

3. The great white shark is effective at cutting off chunks of flesh for easy swallowing due to its:
   a. bread-slicing-style serrated, wedge-like teeth.
   b. razor-sharp first dorsal fin.
   c. blunt-force strength.
   d. angular caudal fin.

4. An envenomation is a(n):
   a. process to identify the type of poison found in a plant.
   b. scientific form of snake classification.
   c. injection of poison or other foreign substance by an animal.
   d. action to describe predator stalking prey.

5. An elapid snake is a:
   a. nonvenomous but muscular constrictor snake.
   b. venomous snake with long, hinged, hollow fangs.
   c. venomous snake with rear fangs.
   d. venomous snake with hollow, fixed fangs.

6. A new PDI added to Protocol 2 in MPDS v13.0 gives which of the following instructions to avoid the rapid loss of blood pressure in cases of severe anaphylactic reactions:
   a. keep the bitten limb elevated over the head.
   b. tell her/him to lie down (sit if difficulty breathing) and not to stand or walk.
   c. tell her/him to keep moving to avoid falling asleep.
   d. immediately rinse the wound with soap and warm water.

7. If the type of snake is unknown, the EMD should give non-elapid snakebite instructions.
   a. true
   b. false

8. If the caller identifies the source of the bite as an insect, spider, or snake, the EMD should use which Protocol?
   a. Protocol 2: Allergies (Reactions/Evenomations (Stings, Bites)
   b. Protocol 3: Animal Bites/Attacks
   c. Protocol 6: Breathing Problems
   d. Protocol 26: Sick Person (Specific Diagnosis)

9. If an arrest may have been caused by extremely SERIOUS hemorrhage, the EMD should initiate CPR before providing instructions to control the bleeding.
   a. true
   b. false

10. The AGONAL BREATHING Detector should only be considered when:
    a. breathing is UNCERTAIN (second-party caller is unsure).
    b. breathing has already been determined to be INEFFECTIVE.
    c. the caller reports that the patient is breathing, but you have reason to suspect the patient may not be breathing effectively.
    d. anytime the bystander is required to give CPR and prior to initiating CPR.

To be considered for CDE credit, this answer sheet must be received no later than 04/30/18. A passing score is worth 1.0 CDE unit toward fulfillment of the Academy’s CDE requirements. Please mark your responses on the answer sheet located at right and mail it in with your processing fee to receive credit. Please retain your CDE letter for future reference.
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ANGLES AMONG THEM
Technical Rescue Teams play key role in FPDS Protocol 62

Josh McFadden

When the long winter months begin to die out and the snow and ice start to thaw, hiking and climbing enthusiasts are drawn to their sanctuaries. Mountain trails, canyon roads, cliff walls, and massive rock formations are enticing destinations in the spring and summer for those who love to get outside and enjoy nature.

Outdoor adventure activities such as mountaineering, canyoneering, mountain biking, and others are available in areas throughout the world. In 2015, in the United States alone, more than 51.5 million people participated in trail running, running, and jogging; 43 million enjoyed road biking and mountain biking; and 37.2 million hikers were out hitting the trails.¹

However, as with any type of hobby or activity, there are risks involved with high-adventure outings. A variety of injuries can occur, as can other incidents that would require emergency response.

In statistics compiled by the American Alpine Club, it’s clear to see that mountaineering and canyoneering injuries and deaths in the United States are not at all uncommon in these environments. From 1990 to the present, an average of 135 mountaineering accidents were reported each year, with 111 injuries and 28 fatalities occurring.² Furthermore, between 1951 and 2006, 39.4 percent of all mountaineering accidents were caused by slips and falls on rocks. Another 11.3 percent of injuries or deaths were the result of slipping on ice or snow.³

High-angle rescue situations
One of the most common 911 calls from outdoor high-adventure sports and activities requires use of the Fire Priority Dispatch System™ (FPDS®) Protocols, specifically Protocol 62: High Angle Rescue (Above or Below Grade). The protocol defines HIGH ANGLE Rescue as “rescue or extrication situation of person(s) from elevated buildings/structures/terrain where conventional interior rescue is not possible. Also, to effect rescue of injured and/or stranded person(s) in areas where normal access is unavailable or hazardous due to height and/or terrain.” Rule 2 on this protocol tells us that evacuations at greater than 60-degree inclination are considered HIGH ANGLE operations.

The use of this protocol is not limited to response in remote areas, canyons, or mountains. In fact, there are three Determinant Suffixes for high-angle rescues, and as the protocols...
tell us, the Determinant Suffixes “help to delineate the type of problem for specific response and safety purposes.” The three suffixes are A = Above grade, B = Below grade, and W = Above water.

There are three primary types of high-angle rescue: urban/structural, wilderness/mountain, and cave rescue. Urban rope rescue involves heavier equipment and typically is accomplished quickly. Cave and wilderness rope rescues, however, involve lighter equipment with extended rescue times.

Wilderness rescue on Protocol 62

For the purposes of this CDE, we will focus on the wilderness/mountain high-angle rescues. These operations are usually defined in terms of the types of terrains involved and the steepness of the area. If the area in which the victim is trapped is particularly steep, the rescue will require more technical expertise. Also, muddy, icy, or rocky conditions must be taken into account. Depending on whether these factors are present, rescue crews may need to bring in stretchers and additional rope.

All three Determinant Suffixes are applicable in wilderness/mountain rescue. The answer to Key Question 1, “What type of building/structure/terrain is involved?” will tell you which one to use.

An above-grade high-angle rescue would be someone trapped while rappelling; a below-grade example would be a person trapped in a tunnel, crevasse, or seam in the ground. As for the above-water situation, this would come into play with a hiker or climber trapped on a cliff or mountaintop hanging over a body of water.

Once you have gotten a clear answer to Key Question 1, you will ask Key Question 2, “What is her/his approximate distance from the bottom/top?” Make sure you use the appropriate word (either “bottom” or “top”) when asking this question. Axioms 1 and 2 are important here, as they provide valuable instruction to the dispatcher and rescue crews. Axiom 1 states the following: “For purposes of general building size-up, one story (floor level) equals 10 feet (3 m).” Axiom 2 tells you, “Buildings over 75 feet (23 m) present special problems for the rescue occupants.” “Mountain” or “rock” could be substituted for “building” for the purposes of wilderness rescues.

You will ask Key Questions 3, 4, and 5 to learn whether the victim is threatening suicide or whether other people involved are in danger or are injured.

This protocol is no different from any of the other Priority Dispatch® protocols in that the Post-Dispatch Instructions are critical. The EFD must remember, however, that while asking Key Questions, he or she should suspend questioning when necessary to give safety PDIs, and then return to sequence. The EFD should also provide responders with any known information about the location and number of people trapped or in danger.

The four PDIs to provide are:

a. I’m sending the fire department to help you now. Stay on the line, and I’ll tell you exactly what to do next.

b. Do not approach or attempt to rescue the person(s).

c. Tell the person(s) not to move.

d. Do not touch any equipment that may be suspending the person(s).

“The calltaker’s job is to tell the caller not to do anything (for the trapped person) or it can make it worse,” said Brian Dale, IAED™ Associate Director of Medical Control and Quality Processes and veteran firefighter. “They’re trying to do the right thing, but more often than not they’ll kill the person or do harm. It’s amazing what people will try to do in the absence of knowledge.”

Dale said he has seen victims decapitated or crushed when bystanders or callers try to rescue a trapped person.

Technical Rescue Teams

Some high-angle rescue situations require even more specialized help than a typical emergency responder can provide. Rule 2 on Protocol 62 states that a Technical Rescue Team (TRT) should be used for all rescues above 60 degrees.

Furthermore, Rule 3 states, “In specialized rescues, the TRT should be advised as soon as possible to effect a timely recovery of the person.”

Capt. Bob Duemmel, City of Rochester Fire Department and Deputy Coordinator for Special Operations in Monroe County (New York, USA), said TRTs began to spread like wildfire after the Sept. 11, 2001, terrorist attacks in New York City.
“A number of agencies around the country jumped on the ‘technical rescue team’ bandwagon during the post-9/11 era,” he wrote for Firehouse World, an online publication.

Capt. Steve Crandall, Coordinator, Salt Lake City Heavy Rescue, Salt Lake City (Utah, USA), knows what Duemmel is talking about. Crandall is one of the foremost experts on TRT training and TRT situations. Crandall has travelled around the world training TRTs and Heavy Rescue Teams. He said while most TRTs in Europe are military-based and are funded by government agencies, TRTs in the United States are usually volunteer-based crews.

“Volunteers are a true cross-section of humanity,” Crandall said in describing the wide range of people that devote their time to these teams. “Some have limited outdoor technical experience.”

Others, though, have been or are EMTs. Still, the teams receive significant and intense training and instruction. Crandall said volunteer TRT members work alongside a senior firefighter in a six-week training course and attend monthly meetings. He added that most get up to speed after about a year.

“It takes a while for new volunteers to be effective,” he said. “Senior members bring up the junior members.”

Crandall said the majority of rescues TRTs are involved in are typical search and rescue operations for missing persons, not highly technical ones like you might think. His group was only involved in six rope-based rescues last year.

TRTs in action

A TRT member may go on several calls that involve walking or riding four-wheelers for miles looking for missing hikers, only to find them safe and sound, sitting on a rock with minor injuries.

But when serious duty calls, the TRT is ready for action.

Crandall said a typical scenario where someone will need TRT assistance occurs when they’re “walking, hiking, or moving and they slip, trip, or fall.” While some high-angle rescues do indeed involve an outdoor adventurer falling into a tight, hard-to-reach space and then sustaining an injury, Crandall said most rescues using TRT teams are for hikers or climbers who get injured and then become stranded hundreds of feet up on a cliff or ledge. He added that more falls occur when the person is going down rather than up. The accident then leaves the person unable to get to safety due to the high-angle situation. Often, the victim may be stranded for hours.

“When canyoneering, people often fall and then become ‘be-nighted’ (stranded overnight) and then get cold and hypothermic,” he said.

TRTs pay special attention to the First Law of Technical Rescue: The first 10 minutes on scene of a technical rescue often determine how the next few hours will go.

Conclusion

High-angle rescue situations bring a great degree of risk to the victim, bystanders, and even responders. This is one of the chief reasons Technical Rescue Teams are called into action to perform these uniquely challenging and difficult rescues. With their extensive training, unmatched expertise, and dedication, TRTs can perform work that others can’t. It all starts with you, the dispatcher, in your communication center making the right decisions and sending appropriate help.

Sources

3. See note 2.
YOU MUST BE FIRE CERTIFIED TO TAKE THIS QUIZ

Answers to this quiz are found in the article “Angles Among Them,” which starts on page 36. Take this quiz for 1.0 CDE unit.

1. Statistics show that between 1951 and 2006 _____ percent of all mountaineering accidents occurred as a result of slips and falls on rocks.
   a. 11.3  
   b. 28  
   c. 39.4  
   d. 70  

2. According to Rule 2 on Protocol 62, high-angle rescues are performed when the angle exceeds what degree?
   a. 30  
   b. 60  
   c. 75  
   d. 90  

3. What three suffixes are used when selecting a Determinant Code in Protocol 62?
   a. A, B, C  
   b. A, C, D  
   c. B, C, D  
   d. A, B, W  

4. Key Questions 3, 4, and 5 are asked in order to:
   a. determine whether the victim is threatening suicide and to find out whether other people involved are in danger or injured.  
   b. know whether the victim is in an urban or rural area.  
   c. find out how high the person is trapped.  
   d. find out whether this is an above-water rescue.  

5. Which of the following is NOT a Post-Dispatch Instruction provided on Protocol 62?
   a. Do not approach or attempt to rescue the person(s).  
   b. Make sure the person has shelter and something to drink.  
   c. Tell the person(s) not to move.  
   d. Do not touch any equipment that may be suspending the person(s).  

6. Which Rule on Protocol 62 states, “In specialized rescues, the TRT should be advised as soon as possible to effect a timely recovery of the person”?
   a. Rule 1  
   b. Rule 2  
   c. Rule 3  

7. Technical Rescue Teams in the United States generally comprise which of the following?
   a. ex-military personnel  
   b. retired paramedics  
   c. current firefighters  
   d. volunteers  

8. Technical Rescue Teams only respond to highly technical situations and never routine search and rescue calls.
   a. true  
   b. false  

9. Most falls that result in high-angle rescue occur when a victim is:
   a. going up  
   b. going down  
   c. moving from side to side  
   d. not using ropes  

10. Technical Rescue Teams adhere to the guidance, “The first 10 minutes of a technical rescue often determine how the next few hours will go,” which is found in:
    a. First Law of Technical Rescue  
    b. Axiom 1  
    c. Axiom 2  
    d. Rule 1  

To be considered for CDE credit, this answer sheet must be received no later than 04/30/18. A passing score is worth 1.0 CDE unit toward fulfillment of the Academy’s CDE requirements. Please mark your responses on the answer sheet located all right and mail it in with your processing fee to receive credit. Please retain your CDE letter for future reference.
In 1989, the newly formed Academy subscribed to a national newspaper clipping service, and for one year, we received so many articles of Emergency Medical Vehicle Collisions (EMVCs) that I couldn’t fit them all into a cabinet drawer. These were just the ones that made the news, such as fatalities, rollovers, lawsuits, and horrible outcomes. I had hoped, that in coming years, the number of incidents (in the news and not) would decline, particularly those resulting from the unnecessary use of lights-and-siren. I was not expecting the clippings to eventually fit inside a manila envelope but, perhaps, a number that would free space for other topics in the same cabinet drawer.

My optimism was based on the Academy’s process in protocol to identify which emergency calls require the use of lights-and-siren and those that don’t, in addition to local discretion to develop policy reflecting our recommendations. We garnered the full support of the National Association of EMS Physicians and the National Association of State EMS Directors, which issued a joint statement (1993) that, in part, advised: The use of warning lights and siren during an emergency response to the scene and during patient transport should be based on standardized protocols that take into account situational and patient problem assessments.

In broad terms, the use of lights-and-siren can be particularly dangerous and often without the intended result to save a clinically significant amount of time.

Crashes involving emergency vehicles, including ambulances, are still a substantial problem nationwide. According to the National Highway Traffic Safety Administration (NHTSA), between 1992 and 2011, there were:

- an annual estimated mean of 4,500 motor vehicle traffic crashes involving an ambulance. (This does not include fire or police vehicles.)
- an annual mean of 29 fatal ambulance crashes and 33 fatalities (occupants and non-occupants of all vehicles involved).
- an estimated annual mean of 1,500 injury crashes involving an ambulance and 2,600 injured persons (ambulance occupants and occupants of all other vehicles involved).
Not all the accidents were a direct consequence of unnecessary lights-and-siren use; however, we can say the judicious use of warning lights-and-siren in the initial response and subsequent transport of patients likely will result in a more balanced system of appropriate care with minimization of iatrogenic (caused by medical examination or treatment) injury and death. If you don’t go HOT, you’re obviously less likely to be involved in, or create, an accident. And if you don’t go at all, you can’t get hit.

ABOVE ALL-DO NO HARM

James E. George, MD, JD and Madelyn S. Quattrone, JD

The following newspaper story was written by Scott Richardson, a staff writer for The Pantagraph, and appeared on the front page of this Bloomington, Illinois (USA), newspaper on December 29, 1989:

“The city of Bloomington has reached a tentative settlement of nearly $5 million with a former cheerleader who was partially paralyzed in a crash between a pickup truck and a Fire Department ambulance last year.

If the proposal is approved at a scheduled hearing January 10, Sharron Rose Frieburg, 18, of rural Saybrook will get an immediate cash payment of $500,000, according to court papers filed yesterday by her attorney, James Ensign of Bloomington.

She would get three more cash payments, one of $25,000 in 10 years, one of $50,000 in 20 years and one of $100,000 in 30 years.

The proposed settlement also calls for her to get $2,000 each month for the next 10 years and $3,000 per month for each month after that for as long as she lives.

All payments would total $4,975,687 if she lives to her expected life span, Ensign said.

Miss Frieburg is mentally and physically disabled. Using a quadpod cane, she can walk only a short distance unassisted. She cannot talk and needs surgery to improve motion of her arms. She is not expected to ever be able to work, Ensign said.

Miss Frieburg was an honor student when she left home March 26, 1988, to attend a movie in Bloomington with Mark Embry. As they were headed south at Center and Locust streets, Embry’s pickup was broadsided by the eastbound city ambulance which was transporting a man with a sprained ankle to Brokaw Hospital.

Miss Frieburg was in a coma until August 1, 1988, and was brought home later that month after the family’s insurance company said it would not pay for any more hospital care because of a policy clause stating the firm would not pay for extended care when a patient has recovered as much as the company’s doctors think likely.

Since early this year, Miss Frieburg has been attending a program that combines education with therapy for the severely disabled.”

Everybody would certainly agree on the tragic proportions of this case. It is difficult to understand why transporting a patient with a sprained ankle would result in a motor vehicle accident with such a catastrophic outcome. Nonetheless, stories like this occur many times a year throughout the United States.

Why is it that emergency vehicle drivers let themselves fall victim to motor vehicle accidents which could have frequently been avoided in retrospect? Maybe it is the fact that running “RLS” (red-light-and-siren) is such an intoxicating experience that it blurs the normal judgment process which would ordinarily guide the emergency vehicle driver when driving “COLD” (non-emergency status) as opposed to running “HOT” (emergency status).

No Good Samaritan Immunity
Emergency care vehicles should be driven with due regard for the safety of other motorists on the highway as well as the safety of the patient-passenger in the vehicle. Defensive driving skills should be high on the list of EMT priorities. Emergency care vehicles must be operated in accordance with appropriate state vehicle codes and regulations. Such laws and regulations govern not only the physical characteristics of the emergency vehicle, but also the manner in which they must be operated.

New Jersey law (N.J.S.A. 39:4-91), for example, describes the appropriate operation of emergency vehicles: “The driver of vehicle upon a highway shall yield the right of way to any authorized emergency vehicle when it is operated: in response to an emergency call; and when an audible warning bell, siren, exhaust whistle or other means is sounded; and when the authorized emergency vehicle is equipped with at least one lighted lamp displaying a red light visible under normal atmospheric conditions from a distance of at least 500 feet to the front of the vehicle.”

It is important for EMS personnel to note that the above statute does not give the emergency vehicle an absolute right of way. On the contrary, the right of way is qualified and can not be forcefully taken by the emergency vehicle driver if the motorist does not voluntarily give it up.
New Jersey law (N.J.S.A. 39:4-91) further states it “shall not relieve the driver of any authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, not shall it protect the driver from the consequences of his reckless disregard for the safety of others.”

Thus, the emergency vehicle driver must be aware of the fact that he has only a qualified emergency right of way and can not be unreasonably aggressive with other motorists if they do not relinquish the right of way to the emergency vehicle. EMTs often complain about motorists who do not get out of the path of their emergency vehicle in responding to an emergency call. Despite their anger, the only appropriate response for the EMT is to take the obstructing motorist’s license plate number and report them to the police. It is then the responsibility of the police to enforce the penalty provisions of the motor vehicle code for a motorist who does not yield the right of way to an authorized emergency vehicle.

EMTs must also understand that their emergency vehicle has to exhibit the necessary visual and audible signals in order to function in a authorized fashion. The reason for this requirement is obvious. It would be unreasonable to expect motorists to yield the right of way if they were given no visual or audible notice that the right of way was requested.

A further problem exists for EMTs with regard to the issue of what constitutes an emergency call. There are generally two tests that determine whether an emergency call exists. The subjective test attempts to determine what the driver actually believed. The objective test looks to all the facts to determine whether the driver’s belief was reasonable.

A determination of whether an emergency call exists often involves a combined subjective and objective analysis. If an EMT drives a vehicle as if an emergency exists, he must have reasonable grounds for so driving.

For what length of time can the EMT drive the vehicle as if an emergency exists? Generally speaking the driver can assume an emergency exists from the time of dispatch until the time of arrival at the scene, unless the driver has actual notice or should have reasonably known that an emergency did not exist. Obviously, a large measure of how reasonable it is for the driver to assume an emergency exists will depend on the specific information given to the emergency vehicle driver and squad at the time of dispatch. Since dispatch of emergency vehicles is almost always recorded on audio tape, it will be easy to reconstruct these facts if they are questioned at a later date.

What happens from the time of departure from the scene until arrival at the hospital? Whether an emergency exists depends on the patient’s clinical diagnosis and condition at the time of pick-up from the scene. The run to the hospital may not be an emergency if the patient looks well and his vital signs are stable. However, a non-emergency run may deteriorate into a true emergency en route to the hospital.

A significant part of the decision about whether an emergency exists may rest on the shoulders of the EMTs who are with the patient in the vehicle. This decision must be responsibly exercised when it comes to driving the emergency vehicle. EMTs should always drive with reasonable restraint in order to avoid creating a new emergency. Above all, the emergency vehicle driver should do no harm. He should not make a controlled situation become uncontrolled and he should not make a bad situation worse. The guiding principle of medicine which governs the actions of all physicians is to have the physician conduct himself so that he does not make the patient’s condition worse by virtue of his intervention. Obviously, since physicians as well as EMTs are human, there are occasions in which errors in judgment occur and a situation is aggravated. This is unfortunate, and, under the right circumstances, may result in a lawsuit for negligence.

**Medical Priority Dispatch System (MPDS)**

An interesting article entitled “Running Hot,” was written recently by Jeff J. Clawson, M.D., in the July, 1991 issue of the Journal of Emergency Medical Services (Vol. 16, No. 7).

Dr. Clawson is President of Medical Priority Consultants, Inc., of Salt Lake City and is the Medical Director for Gold Cross Ambulance, the Salt Lake City Fire Department and the Salt Lake County Fire Department. He also serves as the medical-dispatch consultant for the cities of Los Angeles and Cincinnati. He is chairman of an NAEMSP subcommittee writing a position paper entitled, “RLS Use in Emergency Medical Vehicle Response and Patient Transport.” Dr. Clawson originated the Medical Priority Dispatch System™ (MPDS®) in 1976.

Dr. Clawson developed the MPDS concept from 1976 to 1979. It was developed with the acknowledgment that “the vast majority of people who request mobile aid are not in a life-threatening situation and, in most cases, the aid received at scene does not have a significant effect on the patient’s eventual outcome.” Dr. Clawson observes that the main objective of MPDS is to “send the right thing to the right person in the right way at the right time.” Dr. Clawson observes in his article that an official of the American Ambulance Association was once quoted as saying, “Red-lights-and-sirens never saved anyone’s life in the history of the world.” Dr. Clawson takes pains to point out that running “RLS” should not be confused with “saving significant time.” Everybody in EMS wants to save significant time whenever possible. However, this should never be at the expense of causing injury and damages which could have been avoided.

Dr. Clawson described the benefits of a Medical Priority Dispatch System. He notes: “In systems using a comprehensive
The Medical Priority Dispatch System (MPDS), complete with a functioning dispatch quality-assurance program, we are starting to see some fascinating science regarding the appropriateness of sending BLS units “COLD,” or non-emergency status, when there is strict compliance to dispatch interrogating protocols. The City of Houston Fire Department recently submitted an abstract study to the Society for Academic Emergency Medicine on the ability of the city’s MPDS to spare paramedics from non-ALS responses. The city of Los Angeles, one of the largest metropolitan area in the world, implemented an MPDS in November 1988. And, in March of 1990, Los Angeles implemented a tiered-response system based on the MPDS code; suddenly, after decades of full RLD response in an EMS system handling approximately a quarter of a million runs each year, 29 percent of those calls were initially dispatched as a solitary responding vehicle “COLD.” I have been working with Los Angeles for more than two years, and, to my knowledge, the city has never received a formal citizen complaint regarding this mode of response. Similarly, neither the Salt Lake City Fire Department after nearly 12 years of MPDS use.

Dr. Clawson then revealed some startling statistics regarding the motor vehicle hazards of running “RLS.” It has been estimated, observed Dr. Clawson, “that as many as 12,000 emergency-medical-vehicle-accidents (EMVAs) occur each year in the United States and Canada as a direct result of RLS use. In addition, because of the nature of the emergency unit, disrupting, confusing and startling other drivers, up to five times as many accidents are caused by units responding RLS that don’t physically involve the emergency vehicle itself.”

Dr. Clawson noted that “In 1983, Salt Lake City’s Fleet Management department reported that the EMVA rate had dropped 78 percent in that city as the result of MPDS, and it was estimated that the number of EMS vehicles traveling Salt Lake City streets with RLS was safely reduced by 50 percent through the use of the system.”

Dr. Clawson has commented that more and more people are learning about the “maximal-response disease” and the fact that every ambulance, fire truck, and rescue vehicle does not have to respond “HOT.” Dr. Clawson says, “The blind use of RLS may actually be killing more people than it saves. While we may worry about getting into trouble for not responding or transporting RLS, I predict that, in the not-too-distant future, any use of RLS will be subject to sensible justification and standardization or be considered negligent by the courts.”

Dr. Clawson and other individuals and organizations feel strongly about this. It is their opinion that “the medically unjustified, arbitrary or blanket use of RLS is a negligent process that runs contrary to the current medical-dispatch standard of care.” Thus, the MPDS approach to medical dispatching is creating a new legal standard of care for both dispatching and for safe driving of emergency medical vehicles.

Dr. Clawson refers to two recent national organization position papers to support his conclusion. In 1989, the Position Paper on Emergency Medical Dispatching was adopted by the National Association of EMS Physicians:

“Dispatch prioritization is an essential element in any EMS system for it establishes the appropriate level of care including the urgency and type of response.”

“These priorities must reflect the level of appropriate response including types of personnel (ALS vs. BLS vs. First responder), response configurations (numbers and type of vehicles responding) and mode of response (red-lights-and-siren vs. Routine).”

“The appropriate prioritization of the type, number, and manner of responses is essential to effect an appropriate reduction of responding vehicles traveling red-lights-and-siren and therefore unnecessary vehicle accident.”

Dr. Clawson next referred to a document entitled Standard Practice for Emergency Medical Dispatch, published in 1990 by ASTM, a national standards-setting organization: “This (standard) practice may assist in overcoming some of the misconceptions regarding emergency medical dispatching. These include the uncontrollable nature of the caller’s hysteria, lack of time of the dispatcher, potential danger and liability to the EMD (emergency medical dispatcher), lack of recognition of the benefits of dispatch prearrival instructions and misconceptions that red lights, sirens and maximal response are always necessary.”

Conclusion

Dr. Clawson concludes his article by saying: “I believe that the careful, trained and knowledgeable use of the most up-to-date Medical Priority Dispatch Protocols™ results in a safe and efficient dispatch, care, and response process for any EMS system. Measured, medically approved, preplanned responses (as opposed to the shotgun, hurry-up-and-wait approach still present in many current EMS systems) has become the new national standard of care.”

We agree with Dr. Clawson and the need for a well-disciplined and thought out MPDS. Achieving MPDS in suburban and rural areas without a centralized dispatch system may be slower in coming. However, MPDS definitely fits within a setting which already operates off of a centralized dispatch system.

Whether the dispatch system is state of the art MPDS or less structured and divided, the ultimate determination of appropriateness of response will be decided by the intelligence and maturity of the EMT driving the emergency vehicle. In the unfortunate event that an accident takes place at any point in the prehospital EMS encounter, the ultimate decision regarding reasonable and prudent conduct by the EMT driver will be decided upon by the facts of the case as well as the general principles outlined above.”
Lindsay Prater thought the call was a prank.

“I was told I would be receiving $20,000,” said Prater, a former dispatcher at Hutchinson/Reno County Emergency Communications, Hutchinson, Kansas (USA). “I thought ha-ha until the caller finally convinced me this wasn’t a joke. This was real. I started crying.”

Prater was one of 20 first responders across the U.S. to receive a $20,000 grant from OnStar in celebration of its 20th anniversary. The emergency, security, navigation, connections, and vehicle manager service was donating $400,000 to emergency responders with “serious physical injury or hardship.”

Lesley Warnke, OnStar Communications Manager, had the lucky job of delivering the good news over the phone to recipients.

“Making the calls was the coolest thing I’ve done in my nine years at General Motors,” she said. “It was emotional. Many were moved to tears.”

The hard part was choosing among the nominations submitted by four nonprofit police, fire, EMT, and dispatch organizations.

“They all had faced difficult challenges, so it was really tough narrowing the choices,” said Cathy Bishop, OnStar Global Emergency Services Senior Manager. “The decision didn’t come easily.”

Hutchinson/Reno County Emergency Communications Director Michelle Abbott nominated Prater.

“I wanted to do something,” she said. “I felt terrible about her situation.”

While job requirements do not specify hearing thresholds, severe hearing loss negatively affects a dispatcher’s ability to perform essential tasks. Prater could no longer work in the profession.

Prater found that dispatch complemented her altruistic nature, and leaving emergency communications was tough realizing she would no longer be in the position to help. The financial burden of medical care added to her concerns. Money was trickling in through a GoFundMe account Prater’s friend established, but expenses were mounting.

The $20,000 was a godsend, she said.

“The money has helped with the bills,” she said. “I’m truly grateful. It’s been tough.”

Prater remembers the 911 call indicating a hearing problem. She couldn’t hear what the caller was saying.

“It was sudden,” Prater said.

“Something was wrong with my left ear.”

She thought it would go away. It didn’t. She went to a same-day care clinic and many tests later, doctors diagnosed a brain tumor (an acoustic neuroma).

“I was shocked,” Prater said. “It was something you certainly don’t expect.”

The diagnosis was made in December 2014, and as the holidays approached she was taking prescribed high doses of corticosteroids to reduce swelling caused by the buildup of fluids around a tumor. Steroids eased the pressure on her brain but not related symptoms, such as the single-sided hearing loss, vertigo, and tinnitus.

Prater explored treatment options, eventually choosing House Ear Clinic in Los Angeles, California, USA, where surgeons removed most of the tumor, leaving only a small slice to preserve her facial nerve. Prater lost 40 percent of her hearing in the left ear, and the ringing noise (tinnitus) continued. When the noise went away, so did the hearing in the affected ear.

“I can’t tell where sounds are coming from,” Prater said. “It’s very disorienting. People have to talk to me on my right side.”

Prater gets frequent headaches and has balance issues. She is happy to spend more time with her two children, although the uncertain future bothers her.

“This has changed my life,” she said. “I take one day at a time.”

The grants were a novel way to celebrate OnStar’s landmark event, Bishop said.

“This was our way of saying ‘thank you’ to first responders who give so much and help our drivers and passengers in an emergency,” she said. “We were certainly humbled through this process. Most were in situations that greatly affected their lives.”
LET THE OFF HOURS ROLL

What do you do when the work day is done? Maybe you stop by the climbing gym, hurry home to make a crowd-pleasing dish, paint landscapes, write novels, or get ready for your next DIY project. Your interests outside of work are perfect for the Journal’s Off Hours section. Send us an email at editor@emergencydispatch.org and let’s get the story rolling.
Jim Hessler
EMD

Jim Hessler was hired before there was a three-digit number to call and when the company, Smith-Martin Ambulance, paid employees by the run. Crews called dispatch, transport was recorded on paper, and dispatch did the patient billing.

“It’s nothing like it is now,” Hessler said. Hessler says he’s the resident “dinosaur” at the Allina secondary PSAP, second in tenure to center Director Chuck Kaufman, who’s been there 40 years. The longevity, however, carries more pluses than his humor portends. People know him; they trust him; they consider him the kind of guy who goes the extra mile.

Hessler has also had the rare opportunity (among 911 dispatchers) to meet a patient, demonstrating the distance he goes to help save a life. He answered a call from Monticello, about 40 miles northwest of the Twin Cities, involving a woman who had suddenly passed out in her home. Hessler gave CPR instructions to the caller (the woman’s husband), alerted response, and response coordinated a medical aid flight from CentraCare Hospital (Monticello) to Abbott Northwestern Hospital in Minneapolis (home to the Minneapolis Heart Institute).

“The [EMS] team was being honored for saving her life, and the husband points to me and says, ‘If it wasn’t for you, she wouldn’t be here today,’ ” said Hessler, who received a Lifesaver Award at the event. “That made me feel good inside.”

Chuck Kaufman
Director

Chuck Kaufman was in high school and wanted a part-time job. His dad suggested applying at Smith-Martin Ambulance. He drove over on a Saturday and wrote his name and address on an index card handed to him as an application for ambulance washer. He was hired on the spot.

“I asked when they wanted me to start, and they said ‘right now,’” Kaufman said. He put on a pair of scrubs, and, to this day, 40 years later, he has yet to fill out another job application. He didn’t stay long washing ambulances. He no longer wears scrubs.

Kaufman eventually trained as an EMT and was among the original group to certify through the National Registry of EMTs (NREMT) when, in 1978, Minneapolis was the site of the first NREMT-Paramedic exam. He was an EMT for 10 years, transferring to dispatch at a time when access to 911 was less than 50 percent nationwide. He answered calls and dispatched for 15 years, managed the center for three years, and in 2002, he was named director.

Kaufman directs a staff of 32 EMDs, of which 14 EMDs are on duty at any given time. The Medical Priority Dispatch System™ (MPDS®) was implemented in 1992, and the center became an ACE in 2014.

Kaufman only filled out one application during his long career, but he has moved his place of work twice. In 1987, the communication center moved to a former livery stable kitty-corner and across the street.

Drew Boxrud
EMD, Trainer

In the five years Drew Boxrud’s been with Allina Health EMS Communications, he’s provided PAIs for childbirth five times, and he met a survivor of sudden cardiac arrest at a reception held in honor of the EMS chain responding to the call.

“We have awesome calls, and we have awful calls,” he said. “We’re here to help.”

The babies are among the best calls, and he received his first “baby on the way” call while in training five years ago. Two babies were so close to birth that he did little more than send response. Three callers required childbirth and delivery PAIs from start to finish.

The call garnering the most attention recognized dispatchers and paramedics assisting Dan Rosemark when his wife, Mary, suddenly became ill at their home on the morning of Feb. 17, 2012. Mary told Dan she was not feeling well, and, in moments, she could not respond to his voice or gentle shaking. Dan called 911, started CPR following MPDS PAIs, and gave chest compressions for the next five minutes until Coon Rapids (Minn.) Police Officer Pat Morris arrived on scene and took over. She was transported to the hospital and diagnosed with a pulmonary embolism. Three days later, Mary was removed from the heart bypass machine. On Feb. 29, she was fully alert. She had no signs of lasting damage.

On April 3, 2012, the Rosemarks presented the Allina Heart Safe Communities Lifesaver Award to the EMS team involved, including EMDs Boxrud and Kelly Ryan.
TRENCH DUTY

Giving a voice to dispatchers in the thick of it

Ricardo Martinez II

Editor's Note: Ricardo Martinez II is a former dispatcher and the creator and host of the popular “Within The Trenches Podcast.” His guests are dispatchers who tell their stories in a laid-back, fireside chat format. In February, WTTP hit a milestone of 200,000 downloads. Ricardo’s #IAM911 movement in August to support dispatchers and tell their stories on social media drew a worldwide following, including 40 million people reached on Facebook. The Indiana native and his wife have four children, and he is the marketing manager for INdigital. Ricardo will be a guest at NAVIGATOR 2017 in April, where he will record a WTTP episode and present the session “Keep Broadcasting Your Message” on Friday, April 14. Check out Ricardo’s Within The Trenches Podcast at thejabberlog.com. Read the interview in its entirety at iaedjournal.org.

What was your emergency dispatch experience like?

My overall emergency dispatch experience was a good one. I very much enjoyed that I was able to not only help the public but those out in the field. Nothing was the same. I mean, the call types were similar; however, the situations were always different. It kept me on my toes, and I loved it. There is nothing like working a high-priority complaint and your entire team is working like a well-oiled machine. The camaraderie alone in public safety is amazing. They will always be my family. The challenging part of my emergency dispatch experience involved the calls I took. Although I enjoyed it, it took me using every resource to complete a call. Now, this wasn’t all of the time, but the more complex calls took many resources. When you receive a call and all you hear is background noise, you have to listen close for clues as to what is going on there. If you have a suicidal caller on a cellphone and you lose them, you call them back, but if they don’t answer then you have to start trying to ping their location. There are many things that have to be done, and it’s challenging, but it’s something I loved doing.

Tell us about one of your best calls.

One of my best calls involved a little girl who had slid onto the ice. I received a call from a frantic mother who, after trying to calm her several times, told me that her daughter was sledding and ended up in the middle of their pond. The mother said it was thin ice, and she was afraid that it would crack and her daughter would fall in. I was able to keep her calm and get units headed out. She listened and did everything I asked. In the end, she thanked me, and the units on the scene were able to retrieve the little girl without the ice breaking. About a week later, my supervisor at the time was reading...
the local newspaper, and she yelled out, “Who took this call?” I asked, “What call?” and my supervisor read an announcement from the paper thanking dispatch and the public safety units who assisted in saving her daughter. It was a very proud moment for me, and I will never forget it.

**What’s a typical Within The Trenches Podcast episode like? How much of your personality comes out in the podcasts?**

A typical episode runs from 30 minutes to an hour. The episodes are primarily dispatch stories where I will interview a dispatcher and have them share their story. I want to know how they got into this line of work, why they do it, what it has been like for them, their first call, best call, and worst call. The rest of my questions are based on what they are talking about at the time.

I also like a longer show because the guest gets comfortable and will talk and tell more stories. I find these stories fascinating, and since I come from the same background, I can relate by sharing my own experiences. I don’t ever edit anything unless someone tells me to because I want the interview to be as real as possible. If you edit and cut too much, it no longer sounds natural.

My personality? Well, hmm ... yeah, it’s all me. I’m a sarcastic goof who likes to laugh and tell stories. I find these stories fascinating, and since I come from the same background, I can relate by sharing my own experiences. I don’t ever edit anything unless someone tells me to because I want the interview to be as real as possible. If you edit too much, it no longer sounds natural.

To what do you attribute Within The Trenches’ success? Why do the podcasts resonate so much with dispatchers?

We as humans are naturally curious. When we see a news story, we want to hear all of the details because we are curious. When a 911 tape is offered, people listen, and in that sense, the podcast offers a deeper look into what happens during an emergency. The voices they hear on the podcast are just what the tagline says, it’s the voice of the 911 dispatcher who lived through the story they are sharing. Listeners are also learning, and now they know why they are put on hold when calling 911 or why they are asked so many questions.

As for those in the profession, I feel as though they want to learn from others they can relate to. I have received messages from dispatchers who have said that they are in training and have dealt with certain calls and felt as though they were not going to make it. But in listening to the podcast, they realize that they are not alone. Others are dealing with similar situations, and they find it comforting. Following the stories, is education. People don’t know this but the training that some dispatchers get is provided to them only because their center can afford it. If the center can’t afford it, they don’t get the training or continuing education. I often have trainers or training companies come on the show to provide techniques and stories. It’s free training for dispatchers and advertising for the company. It’s a win-win.

You’re doing lots of other projects to elevate dispatchers and the profession. Why are you so driven to help your fellow dispatchers?

Coming from dispatch I noticed that we were not always treated well. We are left out of debriefings and ridiculed on the phone; it’s tough. Now, by no means am I looking for a pat on the back. I know it’s a thankless job but sometimes ... sometimes we just need to know we are appreciated and that our story matters. At one time, I fell into a slump, and I loved what I did, but I hated coming into work. Morale was down; I was a grumpy person, and that’s just not me. I found my passion for 911 again when I started working on these projects. The blog, the video, writing, speaking, and finally, the podcast lit a fire under me, and I wanted to make a difference. I wanted to leave a mark on the industry by sharing the stories of those I relate to most—the Thin Gold Line. I bleed for this industry, and most of all I wanted to help people understand what 911 is all about and that the people answering their phone calls have feelings too. They are not drones. Dispatchers are right there with them, but they have to remain calm, and they do. They are damn good at what they do, and I wanted to make it known.
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Buying a speedway wasn’t so crazy, after all
Audrey Fraizer

Cedar Lake Speedway claims a history of fast cars, ardent fans, drivers who test their ego against speed mile by mile, and at least one marriage proposal.

And since the Kaufman brothers (Chuck, Steve, and Bob) bought the track, the speedway in Richmond, Wisconsin (USA), can also boast about novel approaches to attract thousands of enthusiasts each season.

“People thought we were crazy to even consider buying a racing track,” said Chuck, Director, Allina Health Emergency Medical Service communication center in St. Paul, Minnesota (USA). “I thought this was crazy, but it’s been great fun.”

The three brothers were keen on a business investment. They considered a restaurant in Stillwater, Minn., near their homes in the St. Paul/Minneapolis area. The deal wasn’t for them.

The real estate agent suggested they take a look at a racetrack developed on a swampy section of farmland owned by a family named Cook at the border of Minnesota and Wisconsin. Children of the original owner, Elmer Cook, were ready to sell after several decades of successful racing.

Steve and Bob liked the idea, visited the site, and encouraged Chuck to check it out. This was in November 1999, and snow on the ground was about all he could see into the horizon.

“The first thought I had was the maintenance,” Chuck said. “Oh my gosh. Can you imagine? I had no clue, I had never been to a racetrack.”

And this one, he couldn’t even see.

The ability to turn around and sell the 150 acres, if the speedway failed, however, softened Chuck’s opinion on the deal. He was in with one caveat before closing: have the Cook family help run the operation until the Kaufman brothers were up to speed.

The Cooks agreed and the first Kaufman/Cook race was held in April 2000. The decision paid off.

Cedar Lake Speedway is now even bigger than Elmer and his son, Bob, ever imagined when a field of 12 cars and 85 spectators were on hand for the opening show in 1957 on a flat clay oval. At the same time, it's still the noisy, dusty, gritty, and adrenaline-packed racetrack the Cooks had the gumption and vision to create.

The three-eighths-mile dirt clay oval track hosts a weekly NASCAR racing program, multi-day events, and special events that benefit the New Richmond community. An indoor arena features motocross races and miniature car racing (quarter midget, slingshots, and micro sprint cars). The existing speedway campground doubled to 1,000 campsites that sell out fast for big name races such as “The Masters,” “USA Nationals,” “Legendary 100,” and the “Triple Crown.”

Purses in the three-day USA Nationals totaling a quarter million, with $50,000 to the winner, invite heavy competition.

Chuck devotes three out of four weekends at the track during the summer, and one week a month at the indoor arena when the outdoor track is closed for the season. Steve is the speedway's full-time manager, and Bob works there part time. They sell concessions, including T-shirts and their famous pickle-loaded hamburgers, and keep a high profile social media presence. They also have a very good time.

Capacity crowds pack the outdoor stadium in May for the annual Battle of the Buses three-stage, 15- to 20-lap race. Students from nine competing high schools decorate the out-of-circulation buses, and similar to football and basketball games, cheerleaders,
mascots, and drill teams line the playing field, cheering the helmeted drivers as they go round and round, passing, blocking, speeding up, and slowing down, and making up time to gain ground on an opponent. Spectators are everything but quiet.

“It’s standing room only,” Chuck said. “People think it’s the best thing going, and, for the kids, it’s all about getting the trophy.”

The success of racing buses led to the Faster Pastor race, which, as the name implies, pits local pastors as they commandeer four-cylinder engine cars. An ambulance turn over at the first EMS race ended that line of contests. Although the driver wasn’t badly hurt, Chuck figured maybe it was best to keep lights-and-siren vehicles off the track.

They’re not about to drive an end loader-equipped farm tractor into a trailer and sprint car the way Elmer did to discourage striking sprint car drivers. Elmer’s tractor was pulled out, the sprints did not run, and the remainder of the races went on until 1 a.m.¹

And while they are not averse to budding romance at the track, it’s only a rare occasion when such stories make the sports pages, as happened in 1990 when a feud between top racers led to nuptials one year later. A post-race argument caused Craig Brightbill and Bobby Houston to part ways but not before Brightbill heard Houston tell his daughter, Lisa, “Don’t ever go out with that boy.” Brightbill said “That sort of did it for me.” Brightbill and Lisa were married the next April.²

Chuck concedes the irony of his profession compared to his family’s business. After all, people in an emergency don’t call 911 for its entertainment value.

“That is so different than my day job,” he said. “I’ve learned to like car racing.”

Sources
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Priority Dispatch Corp.” (PDC”) is the leader in multi-service 911 dispatch calltaking solutions and is endorsed by the internationally recognized International Academies of Emergency Dispatch®. While many have attempted to provide products and training for communication center calltaking, PDC is the only company to take a comprehensive systems approach. The Priority Dispatch System™ has been in use for more than 35 years with substantial, frequent updates. Historical data shows the system reduces the risks to field responders, lowers the cost of emergency services and liability for local governments, and increases the quality of service and citizen satisfaction. The Priority Dispatch System is available in ProQA® software format, which interfaces with most CAD and phone systems, as well as in a cardset format. We also offer AQUA® quality assurance and improvement software, training, consulting, and Academy accreditation support.

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PULSEPOINT
BOOTH #609, 708

PulsePoint, a 501(c)(3) nonprofit foundation, uses location-aware mobile devices to improve communications with citizens, empowering them to help reduce the millions of annual deaths from sudden cardiac arrest. The PulsePoint AED app and registry integrates with ProQA® Paramount, allowing dispatchers to inform callers of the exact location of nearby AEDs – directly within the protocol and with no changes to work flow. The PulsePoint AED tools work with or without PulsePoint Respond, the award-winning app that integrates with your dispatch system to notify off-duty professionals and other CPR-trained citizens of nearby cardiac arrest events.

For more information, email info@pulseept.org, call 800-999-9119, or visit us at pulseept.org

NENA: THE 9-1-1 ASSOCIATION
BOOTH #215, 314

The National Emergency Number Association (NENA) improves 9-1-1 by providing training and certifications for public safety professionals; developing standards and best practices; informing policymakers about issues facing 9-1-1; and educating the public about 9-1-1 and its proper use. NENA’s nearly 12,000 members are part of a grassroots network of public-safety professionals dedicated to improving 9-1-1 across North America and beyond. NENA is where hands-on work to improve emergency communications yields truly meaningful results; our members are directly involved in shaping the future of 9-1-1 and keeping our communities strong, safe, and vibrant.

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Emergency services cannot always get to a victim of cardiac arrest within those crucial first 6 minutes. First responders in the vicinity are vitally important in saving lives. S+an the CPR network organizes alerts and resuscitation. S+an the CPR network is active since 2008 and manages over 100,000 volunteers. It comes fully integrated in your ProQA® system. Municipalities, dispatch centers and counties can access their free AED database, trigger automatic alerting of S+an responders and use comprehensive and detailed analysis tools to gain insights into both generic trends and individual incidents.

911 Training Institute (911TI) is the industry’s only training organization led by a licensed clinician specializing in 911 Mental Health. The institute delivers a full curriculum of innovative courses including stress management, Certified 911 Peer Support, and Emergency Mental health Dispatching. This curriculum empowers 911Pros to deliver Resilience-Driven Peak Performance™ in their responses to high-risk psychiatric emergencies. That means optimal employee well-being, PSAP morale, and Best Practice response to callers in mental health crises. Institute Director Jim Marshall served as CEO of the 911 Wellness Foundation from 2011 to 2017 and is editor of The Resilient 911 Professional.

www.911Training.net

9-1-1 Reality is a multi tasking simulator that ‘links out to your ProQA® training license’. See live call taking with protocols while multi tasking training to reduce future errors and increase trainee ProQA skills. 9-1-1 Reality allows ‘floor ready’ pre-CAD learning with recorded and html documentation. Teach real skills and decision making while measuring readiness on any scenario involving EMD, EPD and EFD. NG trainers must have this NG tool for hands on call taking practice that allows measurement and accountability ‘pre-CAD and pre-floor’. Let 9-1-1 Reality protects your agency from liability lawsuits, and rapid turnover for new hires.
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For more information, visit fitchassoc.com, email ccm@fitchassoc.com, or call (816) 431.2600

DataTech911 provides real-time solutions that enable teams to coordinate efforts with multiple CADs, PSAPs and other responding agencies across jurisdictional lines. DataWatch911, a comprehensive 9-1-1 system management solution, provides real-time EMS analytics, reports, and actionable insights to support personnel, resource, and procedural adjustments. FirstResponse911 simplifies PSAP to PSAP or PSAP to EMS provider interoperability and reduces errors by forwarding call data to the correct EMS provider. StatusNet911 provides integration of incidents from multiple CAD systems to local, regional, and state views of resource availability, triage status, and system outages to support real-time response to MCIs and routine incidents.

The Denise Amber Lee Foundation is a non-profit foundation borne out of a tragic breakdown of the 9-1-1 system. The foundation now offers many highly acclaimed, full day, onsite training presentations. The Denise Amber Lee Foundation also now offers consulting opportunities to help agencies with their in-house training programs and assistance with establishing or improving QA/QI processes. We also offer 3rd Party QA Call Review services.

For more information, visit deniseamberlee.org
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Critical communications technology pioneer HigherGround has partnered with Priority Dispatch® to simplify the quality assurance process. HigherGround’s full-featured solutions transform data into actionable intelligence, enabling decisions with certainty to enhance agent performance, optimize operations, improve customer satisfaction and reduce costs, which ultimately increases revenue. The cost-effective and dependable HigherGround Capture911 multi-channel recording and incident reconstruction solution integrates with Priority Dispatch’s AQUA® Evolution product using an Application Program Interface (API) to exchange data. Interactions recorded with Capture911 can now be accessed and searched directly from the AQUA user interface, with just the click of a button.

The IAED® is a non-profit, standard-setting organization promoting safe and effective emergency dispatch services worldwide for more than 35 years. Comprised of three allied Academies for medical, fire, and police dispatching, the IAED supports first responder-related research, unified protocol application, legislation for emergency call center regulation, and strengthening the emergency dispatch community through education, certification, and accreditation.

For more information, visit emergencydispatch.org
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