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COMING TOGETHER ON THE 911 STRESS FRONT
Stress can take a toll on emergency dispatchers much more than most other jobs. The effectiveness of these professionals depends on their health and well-being.
**CONTRIBUTORS**

**DAPHANIE BAILES**  
**9 | BETWEEN THE CHAOS**

Daphanie has been a dispatcher with Martin County Fire Rescue in Stuart, Fla., since 2005, where she is currently the Training Coordinator. She is a licensed Emergency Medical Technician and has a bachelor’s degree in public safety. She is passionate about the mental well-being of her dispatch family, including awareness of the various triggers that are inherent in this career.

**ART BRAUNSCHWEIGER**  
**10 | FROM THE EMD SIDE**

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, N.J. Art has been involved in 911 telecommunicator training and medical quality assurance since 1999.

**JON WELLS**  
**11 | TECHNICALLY SPEAKING**

Jon is Vice President of Strategic Marketing for West Corporation, Safety Services Division, Omaha, Neb. In this role, he is responsible for managing the entire Safety Services portfolio including Public Safety, Carrier Services, Enterprise, Next Generation 911 Solutions and Alarm and Security. In addition, he is responsible for the line of business’ Marketing Communications.

**JAMES MARSHALL**  
**20 | STRESS**

James, M.A., L.L.P. is the chair and CEO of 911 Wellness Foundation (911WF). A licensed psychotherapist for over 25 years, Jim directs the 911 Training Institute and educates telecommunicators in personal resilience and 911 call mastery. He co-led a national effort resulting in the 911 industry’s first Standard on Acute/Traumatic and Chronic Stress Management. His upcoming book is THE RESILIENT 911 PROFESSIONAL.

**ANNE RASKIN**  
**25 | STRESS**

Anne has worked as a public safety communications dispatcher in the Division of Emergency Communications in San Francisco’s Department of Emergency Management since June 2006, and has been a public safety communications supervisor since August 2013.

**KIM RIGDEN**  
**22 | STRESS**

Kim is the Education and Quality Improvement Commander for the Toronto Paramedic Services Communications Centre. She has nearly 25 years of experience in emergency services including 17 years with British Columbia Ambulance Service. Kim is an EMD Instructor and a Master Medical ED-Q™ Instructor. She has been a presenter at both the NAVIGATOR and UK NAVIGATOR conferences.

**RYAN DEDMON**  
**33 | STRESS**

Ryan is the Communications Specialist for the 911 Wellness Foundation, a nonprofit working to optimize the overall health and well-being of emergency dispatchers. Ryan is a former Police Communications Operator and currently serves as an Adjunct Instructor at the Golden West College Criminal Justice Training Center in Southern California.

**SHANNON SHULER**  
**50 | FROM OUR MEMBERS**

Shannon is a Fire/EMS Dispatcher for Charleston County Consolidated 9-1-1 Center in North Charleston, S.C. She has been dispatching for 8 years and, in addition to her time at dispatch, she also volunteers for her local fire department where her brother is the chief. Shannon is pursuing a degree in Emergency Management with hopes of furthering her career to include Public Health.

**PENNY FOR YOUR THOUGHTS**

Have something you want to share with your fellow readers? Send us an email to editor@emergencydispatch.org.
Welcome to the July/August issue of the Journal and an introduction to a few adjustments we’ve made in the print and online versions.

Perhaps the most noticeable change involves taking the FYI section from the print copy and posting these time-sensitive stories on the Journal website and/or social media. You’ll now find the FYI stories under the online banner “In The News.” They will be updated as often as we put them together. We plan to give more attention to our communication centers to show the diversity of cities and countries that use the medical, fire, police, and emergency communication nurse protocol systems and we will continue to provide updates to the protocols, which every day affect millions of lives worldwide.

We’ve also expanded the online version. Some articles have additional content related to what’s in print but posted online to provide a more in-depth perspective or simply because we have more to say than the printed pages allow. For example, we often find more information than printed space allows for our Continuing Dispatch Education (CDE) articles, and with the web, we now have the ability to refer readers to the online post. We are also testing the idea of running articles detailing NAVIGATOR sessions online, rather than in the Journal, and cross-referencing articles in the the Academy’s research journal, Annals of Emergency Dispatch & Response (AEDR), to give members more of the science behind the protocol process.

While, for the most part, we will continue to publish two features in each issue, we will also occasionally drop one feature in favor of devoting more space to a topic of particular interest to our members. The multi-story stress feature, starting on page 20 is an example.

In the future, you can look forward to a greater variety of stories about our centers and members. We are also looking to improve the connection between the Journal and social media and the Academy’s popular research publication, AEDR. Some things changing aren’t.

You won’t see any changes to content that over the years has been the most widely read: continuing dispatch education, FAQs, Ask Doc, columns from experts in the field, features, Fast Facts, and the Your Space section. As always, we encourage you to send us your suggestions, submissions, and comments to editor@emergencydispatch.org, and, when you do, include your agency information. We look forward to your comments through the forthcoming surveys that will be accessible on the web.
E
emergency Dispatchers and calltakers tend to favor the adrenaline rush, the no-day-is-like-the-last feeling, and doing good in the world as reasons for staying in the profession.

At least, that’s what we’re told and what we can determine from talking to this rare breed working at a job that takes lots of guts while providing little glory.

We seldom hear grandiose “It’s all about me” replies in relation to awards or any type of recognition. Instead, it’s the “We’re not in it for the praise,” or “Anyone in this room would have done the same,” offhand sort of remark following a particularly trying call.

You wear thick skins well. “I-can-do-everything” personalities are like that.

But sometimes even thick skins wear thin. The rapid succession of emergency calls, the trauma of events heard over the phone, the inability to control outcome no matter how hard you try, and the usual give-and-take involved with putting a lot of people in the same room for long periods of time take their toll.

Although precise definitions and symptoms differ, the most useful and widely accepted definition of stress (attributed to Richard S. Lazarus) is a condition or feeling when a person perceives that “demands exceed the personal and social resources the individual is able to mobilize.”

When constantly reacting to stressful situations without making adjustments to counter the effects, you will feel stress that can threaten health and well-being. Nobody likes the sense of feeling out of control.

Normal degrees of stress—given the right fuel—can escalate into something bigger and make you feel like something is pushing you over the edge. Life loses zest. Performance suffers, and there are days when going about a normal routine or adding one minor task at the end of your shift is mind-boggling and taxing.

Ironically, people shouldering the pressure for others rarely see the pressure crashing down on them, or they ignore the signs in a passion to succeed. Overabundance of anything also takes time to accumulate and recognize. We don’t wake up one morning only to discover that the pants worn comfortably the day before are suddenly a size too small.

While stress is nothing new to emergency dispatch, it’s only been during the past several years that research has both acknowledged and started to quantify the effects on personal and professional life. The demands emergency dispatch places on physical and mental energy are no longer perceived as outside the realm of non-visual participation.

For our feature about stress in this issue of the Journal, we look at pioneering academic research into the question of emergency dispatch and its effects on physiology and behavior. Initial goals of a study now underway includes developing a better sense of day-to-day operations at a communication center and—through the data collected—learning more about how constant exposure to traumatic events influences mental health, professional burnout, coping strategies, and beliefs about the world.

We also hear from experts, such as Jim Marshall and Kim Rigden, and emergency dispatchers who give us their insight into triggering events, acknowledging the symptoms, and building resiliency. We describe programs that centers are offering to help their employees.

While we have no definitive answers for dodging the toll stress can take, we hope the stories—and others in the future—add to the understanding of possibility. Things can only get better.

There are several sites online to assess your stress level.●

What's Your Stress Index? Canadian Mental Health Association at www.mindtools.com/pages/article/newTCS_82.htm
Stress Screener. Mental Health America at www.mentalhealthamerica.net/stress-screener
A series of tests are available from Psychology Today at www.psychologytoday.com/tests
Okay Jeff,

Since you are the man of the hour, here is a debate we are having ...

You have a 62-year-old female that is having chest pain and difficulty breathing ... She is conscious, alert, has no stroke symptoms, and is not allergic to aspirin. When going through the protocol, she states she just chewed four low dose aspirins as she was dialing 911 ...

Since she took the correct dose and chewed it and didn’t swallow it, can we bypass the aspirin? If she swallowed it, I could see her having to chew the correct amount but since she chewed it, I am all set by not administering more ...

What is your take? Do we or do we not administer aspirin???

Karen L. Lord
Communications Officer
City of Biddeford Emergency Communications Division
Biddeford, Maine, USA

Karen,

Good to hear from you. Can’t say that we didn’t see this one coming. As they say in sports, are “liners” in or out? In this case, it would be reasonable to assume that the patient took the aspirin virtually when they would have anyway, if advised by the EMD based on the protocol, so I would say, since the dose appeared to be correct also, that this would be sufficient—and no additional recommendation of ASA should be therefore advised. This assumes no previous bad reactions, or other precluding conditions.

This said, it is difficult to, at this point, say exactly how long before contact, that if the patient had already taken the appropriate dose, we should not advise the standard administration of ASA anyway. In your case, things appeared to be virtually the same as what we would have done via protocol. But this may not be the (exact) case in another situation, so I would not recommend, not advising the administration of an (additional) ASA dose (given the apparent safety of ingesting a little more, if even twice as much more, ASA), since these doses are basically subclinical compared with the usual dosing of aspirin for headaches, arthritis, injury, and the like. I have taken four 325mg tablets of aspirin for my common, moderate headaches since I was 10 years old.

While this “liner” was “in,” I don’t think we should make any significant changes to the ASA admin “rules” as a result. As Dr. Joseph Ornato, the author of the original aspirin administration guidelines for AHA, has usually replied to our varying questions of ASA admin like this, and has advised, “Tell them to take the damn aspirin!” But don’t quote him or me exactly, please.

I would add that, “When in doubt, act in the direction of patient well-being and safety.” Hope this helps ... Doc
TAKING CPR TO THE CLASSROOM
Students are first round in IAED study

Tracey Barron

This past April, 80 students from a Salt Lake City, Utah, area high school received a lesson to save lives during a study conducted by the International Academies of Emergency Dispatch® (IAED™) research team and facilitated by high school health teacher Myriah Fankhauser.

Students from Fankhauser’s four health classes assembled in the study area at the same times the classes regularly met. The approximately 20 students from each class took a number from a box indicating whether they would be part of the control or experimental group. They were individually sent to either of two separate spaces on either side of the larger room where a member of the IAED research team read the scripted message: You have walked into a room and found the person unconscious on the floor. Pretend you are calling 911. Wait for the Emergency Medical Dispatcher to pick up the phone. Answer the EMD’s questions and follow the instructions.

EMDs Holly Downs and Leslie Devey, both from Valley Emergency Communications Center (VECC), in Salt Lake County, sat stationed at mock CADs set up outside the study area, going through Case Entry and providing Pre-Arrival Instructions subsequent to identifying the patient as “unconscious and not breathing” following Case Entry Question 6.

Students, kneeling alongside the lifesaving dummies, gave chest compressions for timed two-minute periods. In the experimental group, students and the EMD counted out loud using a metronome, while in the control group, students and the EMD counted out loud without the use of a metronome. The study will compare the efficiency of chest compressions when administered with and without the metronome.

According to several studies, a metronome, commonly used by musicians to maintain a beat, can enhance the efficiency of CPR and, consequently, improve a patient’s survival rate. In a similar study, more than 150 medical providers performed two rounds of chest compressions on a pediatric mannequin, one round with the metronome and one without. It turned out the metronome provided significant improvement in the mean percentage of compressions delivered within an adequate rate (90–100 compressions per minute).1

A metronome audio is built into the Medical Priority Dispatch System™ (MPDS™) ProQA® software; every click of the metronome signals the rescuer to do a chest compression.

The IAED research team is taking the study to several other locations, with varied demographics, to determine the efficacy of metronomes in giving chest compressions. Other study goals might include the necessity of a scripted message telling the caller to put the phone on speaker and lay it beside the patient prior to beginning CPR. As clearly indicated at the high school trial, positioning of the cellphone under the chin or holding it in one hand, while pumping with the other, compromised compressions.

Interviewed students had little to no experience giving CPR. A few of the students had taken a lifesaving course that included CPR in preparation for summer jobs at the local recreation pools or to babysit. The physical exertion of effective CPR surprised several students, although one student said experience from pushing a marimba (a percussion instrument) in the school’s marching band definitely benefited her stamina at giving chest compressions.

Finally, the study alerted students to the importance of knowing how to perform effective CPR and the importance of following an EMD’s instructions during an emergency situation.

The study alerted students to the importance of knowing how to perform effective CPR and the importance of following an EMD’s instructions during an emergency situation.

“it was a cool study,” said freshman Ethan Fender, who is thinking about becoming a paramedic. “I doubt kids our age know how to talk to a dispatcher. I don’t think many of us knew that a dispatcher gave instructions.”

Fankhauser welcomed the study as part of her goal to encourage certification in CPR.

Source
I saw the news tonight. I guess I should expect that they were only able to tell half the story. The events that followed that flash of light that cut you down, they wouldn’t be able to film or properly reenact. That innocent game of catch between you and your kids was halted mid-throw. It would be too graphic to capture it all—the helpless shrieks of your wife as she watched, frozen, and the terrified whimpers of your children playing like the background music of an old horror flick. The heroic but futile efforts of those around you would be too heartbreaking to blast across the television. To even try to capture a tiny amount of the gut-wrenching emotion would take longer than the 30 seconds allotted for your piece.

But I heard it; I heard it all. While I directed those would-be rescuers to your aid, I heard it. I felt the tightness in my chest, the pounding in my ears as I focused on the protocol, and I tried to control anything and everything that I could through the open line. I gave those instructions to the caller and listened as she relayed them to your angels. I was silently praying that I was helping you in some way, that I was going to help give you back to them. And when I saw the news tonight, it brought it all back. The camera crew captured the calm beauty of the scene, and as the reporter was telling the story, my mind added it all back in ... the turmoil of those moments that I had imagined, the picture I had painted revealed itself once again, but was now more palpable than ever. I could see where you were lying, where she was standing, and the wall that your babies stood against as they quivered. I could still hear the pure panic that resonated through her cries for help. That tightness emerges again accompanied by a migraine-like aura. I feel my breath quicken and my hands clench as if controlled by someone else. I find myself drenched in the checked emotions of the day. They are raw, unrestrained. I suddenly notice that my eyes are shut tight. I try to calm myself, to take a deep breath. I gather up the shattered pieces of my composure. I hug and kiss my husband, breathing him in, holding on for a moment longer than normal. I feel guilty but also grateful for the chance to hold him and to feel him hold me back. I know the fragility of that chance, and I’m once again reminded to never take that chance for granted. I remind myself, “I did all that I could do.” I change the channel. I already know more than enough about what happened today.

News reports, social media accounts, and printed articles can be a trigger for telecommunicators. Be aware and be prepared to handle those triggers. Take time for socializing, engage in healthy hobbies, meditate to decompress, exercise, eat right, and get plenty of sleep. Participate in debriefings and encourage agency leaders to not only offer them consistently but to also write policies that set a standard for their use including specific call types and who to include.

We ARE a village, and we ARE our brother’s and sister’s keeper. Watch your team for reactions to possible triggers and encourage a breather away from the console after stressful events. Encourage the use of employee-assistance programs. Become involved with groups that promote ways to educate our FIRST, first responders about the resources available to them. Our culture is our own, and only we can change and strengthen it.

News reports, social media accounts, and printed articles can be a trigger for telecommunicators. Be aware and be prepared to handle those triggers.
THE DREADED WORD ‘NON-COMPLIANT’
You can have that perfect call

Art Braunschweiger

Recently, I asked a dispatcher at my agency, who’s new to Medical ProQA®, how he was doing with his calls. “Apparently no good, because I’m Non-Compliant.” (That last word was almost thrown at me.)

Honesty may be the best policy, but when someone tells you exactly what they think of you, it can be hard to take. The Incident Performance Reports in AQUA® can be like that. For some, seeing the word “non-compliant” brings back memories of having a teacher in school hand back a paper with big red X’s on it. It’s even worse when that word glares accusingly at you from the top of the page. Unfortunately, any line-item comments added by the Q don’t always soften the blow.

The intent of the Incident Performance Report, and the term “Non-Compliant,” is to identify which areas of the protocols and performance standards were complied with and which were not—nothing more. “Non-Compliant”—even if that’s the category that the call ends up in because of the number and type of deviations overall—doesn’t mean that you failed.

An Incident Performance Report can be understood better with an analogy to an on-the-job performance review. I asked the above dispatcher when the last time was that he drove to work (a long trip for him) and complied with every single traffic regulation to the letter. “Never,” he replied. “Does that make you a bad driver?” I asked. “Not at all,” he answered. I then proceeded to share the following analogy.

Imagine you’re a professional truck driver with a firm that has a top reputation for safety and professionalism. One day the firm’s lead driving instructor says she’s going to ride with you and evaluate your driving. At one intersection with no traffic around you fail to come to a complete stop. You haven’t complied with the traffic regulation governing stop signs, but since you hardly put anyone’s life at risk, it’s only a minor deviation. Later in the day, on the highway, you exceed the speed limit by 15 percent. That’s a moderate deviation from the traffic regulations because of the potential consequences. (In the United States, the degree of deviation is reflected in the difference in speed resulting in a charge of “careless driving” vs. “reckless driving.”)

The International Academies of Emergency Dispatch®, in developing the current performance standards, knows that perfection is an unrealistic goal. That’s why a call can have up to four Minor Deviations and still be considered “compliant” overall. That’s also why the category of “high compliance” exists; it reflects the exemplary skill or effort that resulted in a call that has no deviations.

Even those of us who are Q’s, who tend to be a bit more protocol-savvy than the average dispatcher by virtue of our specialized training, have challenging calls. Periodically, the caller will say something that doesn’t neatly fit into the protocol script, and we have to do what anyone else would do: decide and act, with a scant few seconds to make a decision. We don’t always make the best call, and sometimes we read part of the script the wrong way. (But we tend to be much harder on ourselves when we do.)

A “perfect call” is readily achievable, especially with a simple complaint and a calm, cooperative caller. We should always strive for that level of excellence, but we should never be discouraged when we don’t attain that goal. The Incident Performance Report is highly specific in identifying what was missed or needs improvement, and that’s all it’s intended to do. Properly used, it can help you go into the next call with an awareness of what to do differently. Who knows, that next call just might go smoother because of it. ●
Every "first," first responder in the Public Safety Answering Point (PSAP) knows that informed response helps save lives. The evolving reality of Next Generation 911 (NG911) intends to deliver on that promise.

Public expectations and reality are not necessarily aligned. Macro trends in public safety—supplemental data, big data, M2M, cloud computing—place additional pressure on PSAPs already facing budgetary challenges and mounting requirements for agency efficiency, responder safety, and the struggle to save more lives and protect more property.

It's a complex world spliced with staggering amounts of information that must be received and managed by agencies with fewer resources. How can PSAPs meet the demand?

Integrated Command and Control (ICC) is a new approach that can deliver solutions for a superior NG911 paradigm, eliminating swivel chair management or stovepipe applications, providing the most effective means for public safety agencies to manage the 911 Continuum.

What is Integrated Command and Control?

ICC is a practical solution that embeds call handling directly and completely into the CAD user interface, providing a unified workflow for the PSAP Radio communications may also be embedded into the same user interface.

From a workflow perspective, agencies realize a unified position with a single sign-on. Imagine that—a single login! Agencies share data and a common user interface, allowing integrated control logic across the applications.

When NG911 event handling and CAD are unified, individual agencies can customize business rules according to their specific standard operating procedures, tightly integrating and shaping event attributes with dispatching rules.

Users may choose to control their workflow using function keys, the mouse, and even the command line leading to increased efficiency and accuracy. Dispatchers can more fully focus on the caller with these optimized resources.

ICC provides simultaneous handling of voice calls and text as well as all future forms of request. Multimedia inputs are stored as part of associated incident record and available to everyone on the Integrated Command and Control system.

A clear pathway to true ICC

In order to achieve an Integrated Command and Control solution, the core applications of call handling and CAD must be unified. True ICC occurs when the CAD user interface provides all functionality natively in an embedded fashion. This unified workflow provides the richest user experience in not only managing the incident, but in collecting and presenting supplemental and big data, from calltaker to dispatcher to responder's mobile data terminal or directly to a handheld device.

West Safety Services is part of this vision, collaborating with industry leading CAD providers. West's Call Control Interface (CCI) integrates components from multiple vendors. Market experience shows that most solution providers have one core competency (sometimes two).

Additional PSAP benefits

Serving the 911 continuum as an i3-compliant PSAP, ICC provides greater security and superior change management functionality. Unified reporting captures every detail of an event from the moment the call arrived to the time the incident was closed. ICC reduces the total cost of ownership, there is less capital equipment to purchase as compared to separated systems and fewer contracts to procure and manage.

The transition to NG911 is a challenging journey, and we are well on our way! PSAPs are realizing the benefits of IP-based systems for GIS and supplemental and big data.

Integrated Command and Control is a reality today and can help save more lives, protect more property, and help ensure a safer outcome for everyone involved in an emergency response.
CHEST PAIN, BURN, OR BREATHING PROBLEM?
Patient inhaling steam complains of chest pain, burning sensation

Brett Patterson

Brett:
I ran into what I thought was an interesting medical call the other night.
I took a call from a steel mill requesting assistance for a patient who inhaled steam and was having chest pain and a burning sensation but no difficulty breathing. I originally picked Protocol 10: Chest Pain (Non-Traumatic), just from hearing the chest pain, but prior to asking any questions from that card I debated on using Protocol 8: Carbon Monoxide/Inhalation/HAZMAT/CBRN, for inhalation hazard, and, possibly, Protocol 7: Burns (Scalds)/Explosion (Blast), although the caller presented no information involving burns, just the sensation. I also considered Protocol 6: Breathing Problems, but the caller said he had no breathing problems. The steel mill has a nursing staff and BLS ambulance.
I talked to co-workers, and we decided to ask for your take on the call. Thanks again for your help. I look forward to hearing your advice. I guess I should tell you I just ended up using the Chest Pain Protocol (Protocol 10).
Thanks,
Jim Reeder
Telecommunicator
Butler County 911
Butler, Pa., USA

Jim:
Interesting call.
If the caller/patient knows the offending inhaled agent is steam, the mechanism of injury (thermal burn to the face caused by a hot gas) fits the definition of SIGNIFICANT FACIAL BURNS (Protocol 7) and is exactly why the definition and associated code was created. The internal airway burns caused by such an injury may not initially cause difficulty breathing, but these patients are at significant risk of subsequent airway swelling that may be life threatening. Two such real-life cases sparked (pun) the definition and code mentioned above.

Brett A. Patterson
Academics & Standards Associate
Medical Council of Standards Chair

Brett:
I do agree that although the third-party call from the security company at the steel mill stated the patient wasn’t in any distress, there was potential for that patient to decline quickly with airway burns. I should have gone with my gut and away from the chest pain card. I will hopefully have others learn from my mistake!
Thanks again for getting back to me.
Jim

Brett:
We are a county communication center in Iowa, and we are EMD certified through the Academy. Most of the time we are staffed with a single dispatcher on duty. If a critical call that needed EMD
came into the center, and the dispatcher on duty was inundated with calls and radio traffic, is it permitted to transfer the caller needing EMD to an adjoining county that we know is also EMD certified through the Academy to conduct or continue with the protocols needed? This would allow our dispatcher on duty to concentrate on the radio and additional calls coming into the center. If this is permitted, should there be an agreement between the centers to provide this backup service to each other? Also, would there be liability risks? We’re just trying to think outside the box for smaller centers like ours that want to provide EMD.

Loretta Welcher
Lead Dispatcher/Supervisor
Delaware County 911 Communications
Manchester, Iowa, USA

Loretta:
First let me commend you on your proactive insight into these potentially litigious scenarios. I am not an attorney, but I am familiar with some of the related legal concepts, namely foreseeability, abandonment, and the Emergency Rule, all of which can be referenced in the legal chapter of your “Principles of EMD” textbook.

As you have shown with your insightful inquiry, an inundation of emergency calls overwhelming a single EMD is foreseeable and is therefore not “excusable” under the Emergency Rule concept in civil law. In other words, if the potential is obvious and predictable, your agency is obligated to prepare for it. If your agency does not have contingency plans, there is potential liability.

Not providing Pre-Arrival Instructions, or transferring a caller to an agency that does not provide the expected standard of care, can potentially be considered patient abandonment, as doing so transfers the caller/patient in need from a higher level of care to a lower level of care. By transferring a caller to an agency certified in EMD when you are inundated, you have prudently avoided abandoning the patient/caller. This is sound practice and is commonly referred to in the field as mutual aid.

As you may know, many (and hopefully most) EMS/fire/police agencies have mutual aid agreements in place for field operations. These are plans/policies/procedures that direct employees with specific actions that have been pre-approved should such circumstances arise. When properly applied, these actions can be defended when they are based on the current standard of care, pre-approved by the appropriate people, made available in writing, and everyone is properly trained.

Therefore, my advice is to gather the involved stakeholders, i.e., representatives from both agencies’ communication centers’ clinical field operations and medical control, and create sound policy/procedure regarding this issue, i.e., when and how to transfer calls. Such policy/procedure should be formalized in writing and then signed off by medical control. Importantly, make sure everyone involved is properly trained and updated on a regular basis, keeping in mind that related occurrences may not be frequent, so related action should be practiced.

I hope this response helps to answer your questions. I have copied an EMS attorney colleague to see if he may have anything to add.

Brett

Brett:
Great response! I concur with your recommendations for stakeholder involvement, development of a formal written policy, medical control approval, and continuing training as good strategies for reducing liability exposure.

Regards,
Douglas M. Wolfberg
Page, Wolfberg & Wirth LLC
The National EMS Industry Law Firm
Mechanicsburg Pa.
CALL IN THE COACHES
Visionary doctor orchestrates protocol use in Vietnam

Audrey Fraizer

Spoken American English doesn’t carry a tune very well.
Unlike other cultures, where the spoken language is often more lyrical to the ear, the English tongue stresses information. Nouns and verbs get all the attention, and if the speaker does not emphasize the important ones, an American audience will have a tough time following the command or conversation.

The Medical Priority Dispatch System™ (MPDS®) provides the emphasis by bolding the words the calltaker needs to stress: What’s the address of the emergency? What’s the phone number you’re calling from?

And that’s exactly the problem Dr. Rafi Kot knew he would have to resolve before offering an emergency 9999 service in concert with Vietnamese and English versions of the medical ProQA® through a communication center in Saigon.

“You can’t just read it,” he said. “You can’t talk to someone in a non-native language until you learn how the language is spoken. You have to act within that culture.”

Kot is CEO and owner of the Family Medical Practice (FMP) in Vietnam, which opened its first medical clinic in Hanoi (1994) and has since expanded into Danang and Ho Chi Minh City (HCMC)—with the more familiar name of Saigon generally referring to HCMC urban districts.

FMP is privately owned and operated, although patients seeking assistance at an FMP affiliated emergency center can access public ambulance services by calling the government’s three-digit emergency number 115.

And that was the overriding problem leading to Kot’s developing the alternative 9999.

A majority of Vietnamese are covered by the government’s Universal Health Insurance Program, but the delivery system is overloaded and, consequently, places greater reliance on the private sector to alleviate some of the pressure in providing services.

It’s also a matter of preference, Kot said. Most Vietnamese prefer private clinics, with the number 115 indicative of the larger problem.

“There’s no guarantee the number will result in a response,” Kot said. “Nobody trusts it. Nobody uses it. People prefer going to the hospital by car or motor scooter.”

The 9999 emergency number is exclusive to FMP, and all calls made to that number go to the dedicated Emergency Medical Response Center (EMRC). Calls are answered using the MPDS process not available through the government emergency line.

Similar to the FMP clinics and hospitals, 9999 users pay a nominal annual subscription rate. Non-subscribers can call the hotline number for emergency
services, but if and when an emergency ambulance is required, they pay the standard published rate. Subscribers have priority over non-subscribers.

In May, the EMRC went into full operation with certified EMDs using both an English and a Vietnamese version of ProQA. The EMRC controls a fleet of ambulances for the service currently available in Districts D1, D2, and parts of D3 and Binh Thanh District.

The nine EMDs hired were chosen from 1,100 applicants responding to an ad seeking individuals fluent in English and Vietnamese, able to work effectively under stress, and easily adaptable to an environment both hectic and unpredictable.

Hiring was demanding on both sides of the process. Qualifying candidates interviewed twice and took several tests to reflect language proficiency, customer service skills, reasoning, information ordering, and, basically, complete the full battery that well-trained dispatchers and calltakers face internationally. None of the people hired had experience in the health care field, and accepting the position meant taking the Academy’s ETC and EMD courses and certifying as an EMD.

It also meant accepting the guidance of a drama coach.

“They [the EMDs] know English from school and university,” Kot said. “But studying a language and actually conversing in the language is quite different. They had to be coached in the way Americans talk and know the words to stress when in protocol. We had to make sure the dispatcher stayed in control of the situations.”

The structured protocol complements the overall design of the *9999 emergency call plan. Kot wanted software that required calltakers to follow step-by-step, and he wanted a robust international system encompassing the right priorities for Vietnam.

“I looked around and found that MPDS was the answer for proactive engagement,” he said. “At this point, we’re very young at the process and continue to learn.”

Getting a jump-start before going live in May included answering simulated calls on March 4 using ProQA, and modeling calls after the more common types of calls and, also, events requiring PAIs, including childbirth and delivery.

“During the simulation, thanks to ProQA, the calltaker was able to ask a number of questions that allowed her to give advice to the caller on how to deliver the baby,” said Susan Wu, FMP Vice President of Marketing. “The simulation took just a little over six minutes.”

Response time due to the city’s traffic congestion and mix of transportation on the roads—motorbike, taxi, bus, and private vehicle—are persistent challenges and major reasons FMP initially limited the number of districts the EMRC serves. However, that’s an obstacle Kot anticipated, setting in motion a visionary plan to accommodate future growth and demand: He asked for the involvement of Jerry Overton, IAED™ Board of Accreditation Chair. Overton is an acknowledged expert in EMS System Status Management (SSM), which comprises logistical planning to direct EMS resources between calls and prepare the system for the best possible response for subsequent EMS calls.

“He’s (Kot) combining the implementation of MPDS with SSM to optimize patient care and response times in a city with traffic jam after traffic jam,” Overton said. “We’ve already met and discussed what we will need to get started when that growth occurs. He’s very forward thinking in his EMS operation.”

Kot also invested in a system that auto-launches an ambulance and can reject the auto-launch if no ambulance is necessary. The auto-launch cannot be overridden by the operator and gives the dispatcher the opportunity to give instructions by phone until the ambulance arrives.

Kot said the path he’s traveled over the past year was uncharted—at least in Vietnam—and he looks forward to moving ahead. The FMP EMRC is the first of its kind in the country, and, along with being first, he is proud that his work sets the highest standards.

“This is like leading an orchestra,” he said. “I knew where we needed to go, and once I started, there was no stopping.”

Thanks to the efforts and foresight of Dr. Rafi Kot, the people of Vietnam can now depend on an organized system of protocols when they reach emergency dispatchers. ProQA went live in the country this past May.
Saying the Emergency Services Telecommunications Authority (ESTA), in Melbourne, Australia, has had growing pains is an understatement.

The number of calls answered by the center covering all police/fire/EMS services in the state of Victoria keeps climbing, and it wasn’t too long ago that a report presented by then-Victorian Auditor-General John Doyle to the Victorian Parliament cited ESTA’s computer systems as a major obstacle in keeping up with the pace.

“Things were going really well prior to the transfer of regional communication in 2010 when we took on the entire state,” said Mark Richards, ESTA, Quality Improvement (QI) Manager, who started at ESTA in 2003 following an 18-year career with the New Zealand police. “That increased our call volume substantially, and things started to slide.”

Richards understood the issues. “Once QA drops, so does overall quality,” he said. “Everything in the package suffers.”

Issues contained in the report focused on the future and ESTA’s ability to accommodate expected growth in call volume—at least 3 percent each year—considering ESTA’s information and communications technology. While ESTA was meeting its targets for dispatching fire and police, the same didn’t apply to ambulance dispatch. The report recommended an overhaul of calltaking processes.

At the time of the report, Richards was an EMD, EMD-Q®, and Assistant Manager of the regional center in Ballarat (ESTA also operates a rural center in Victoria), with a growing workload that was displacing the time generally slotted for call case review.

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The understaffed QI team could not keep up with the percent of case reviews required for emergency ambulance calls that had doubled to 500,000 per year over the past six years since a regional consolidation. Calltaking staff increased, which stressed the resources of the already overloaded training department. The CAD system was nearing the end of its operational life. Calltakers and dispatchers could opt out of training in support of the union’s industrial action to increase pay and improve conditions.

“The pressure was on,” Richards said. “The report cemented what was needed, and someone had to step up to drive the process.”

Richards took the initiative. In May 2013, following roles as a calltaker, dispatcher, team leader, and assistant center manager, he accepted the newly created position as QI Manager. He is responsible for operational staff quality improvement and provides investigative oversight in relation to adverse events and complaints.

His first task involved stepping back. He evaluated ESTA’s status, including certification—only 17 percent had current EMD certification—and the continuing
Richards looked at EMS dispatch from the ambulance perspective. He checked all the boxes and realized the step forward for a proactive solution: becoming an Accredited Center of Excellence (ACE).

“ACE gave us an aspirational view,” he said. “The framework of The Twenty Points was excellent in allowing us to focus on one point at a time. ACE would prove what we were doing and that what we were doing was right.”

Knowing the direction, however, is different from charting the course.

“It was very daunting when we first started looking at the requirements,” Richards said. “But we had to start; we were under the microscope.”

He sought the assistance of professional contacts, and they gladly answered his call.

Priority Dispatch Corp.™ (PDC™) Implementation Specialist Ruth Lloyd, who lives in New Zealand, led operation “ProQA® Medical Priority Dispatch System™ (MPDS®) v12.2” (ESTA is planning to advance to v13.0 when the ANZ version is released in 2016) after the union lifted the industrial action on training. Lloyd’s nearly four-hour flight every other week to Australia and either a 50-minute or 90-minute drive (depending on the site she was visiting) gave her a lot of time for planning.

“It takes some organizing to do what Mark wanted to accomplish,” Lloyd said. “I was actively involved for over 18 months for certification and accreditation.”

IAED™ Associate Director Carlynn Page, who was assisting a center in Australia achieve ACE, altered travel plans and met with Richards to demonstrate the online ACE accreditation tool. He said giving up his weekend to take Page up on her offer and learn the process was the “best decision.”

Page deflects recognition for the “minor” part she contributed.

“He gets the credit for his leadership,” she said. “The EMDs stepped up to the plate and worked through some really tough challenges. Mark and the EMDs are amazing.”

Richards also found support from others on staff, including Jerry Overton, IAED Board of Accreditation Chair; Pam Stewart, IAED Executive Manager; and Arabella VanBeuge, IAED Associate Director Member Services. A QI team was appointed; the CAD was updated. ESTA upgraded to ProQA Paramount, AQUA® 6.0, and v9 performance standards.

“The Academy was so supportive, it wasn’t funny,” Richards said.

Richards and Lloyd were the cheerleaders. He was ready to lead the ACE charge for the long-term gain, and she was ready to give the motivational reminders.

“I was constantly telling them about the full value they would be getting from the system,” Lloyd said. “ACE is not about the certificate you can hang on the wall. ACE is about mining the maximum potential from MPDS. I don’t care how big or small the center, we want them to use the MPDS the way it was designed to be used.”

Things started changing and for the better. EMD certification returned to nearly 100 percent (exceptions included employees taking long-term sick and parental leave) and recertification for everyone one day each year (June 30) to streamline the process. Case evaluations increased to the required one percent. Policies were scrutinized and updated. A greater number of CDEs were made available. In slightly under two years, from May 2013 to November 2015, ESTA accepted the ACE award twice: at Australasia NAVIGATOR 2015 in Melbourne and at NAVIGATOR 2016 in Washington, D.C.

The process taught Richards lessons about protocol and people. He discovered that most like the structure of protocol—it gives accountability to the individual—and want to do their part to protect the public. Once he had buy-in, he had drive.

And people like to acknowledge their success, Richards said.

“Reaching the goal was well worth any pain we may have experienced,” he said. “We celebrate what we achieved and continue to emphasize the importance of our work.”

Lloyd’s travel schedule now includes course and software instruction at several more MPDS sites in the region of Australia/Oceania. ESTA, however, is a destination she will long remember.

“I am so proud of them,” she said. “They had a lot in front of them, and look what they did. ACE is a tribute to their hard work. We all truly had an incredible journey.”

Emergency Services Telecommunications Authority
by the numbers

221
Certified EMDs
out of a staff of 227 EMDs, of which the remaining six have not been certified due to leave

2.5 million
Call volume
including police, fire, and medical during 2014-2015

534,510
Call volume
ProQA events (medical) during 2014-2015

136,696
Call volume
ProQA events (medical) between January and March 2016

ESTA receives a call every 13 seconds
THE FUTURE IN CRASH RESPONSE
Research drives automated notification to the next level

Keith Griffiths

Introduction

A recent study incorporating crash data from 836 vehicles equipped with advanced automated crash notification (AACN) capabilities demonstrates that telemetry from these systems can be used to accurately predict the injury severity of vehicle occupants.

The research used an algorithm to analyze three types of data from each accident: crash factors, vehicle factors, and occupant factors (924 occupants in the 836 accidents in the study). The results were used to predict whether each vehicle occupant met the 20 percent or higher risk of having an Injury Severity Score (ISS) of 15-plus, the threshold for urgent transport to a trauma center.

According to the study’s findings, the methodology is successful in predicting occupants with a high likelihood of severe injury with a sensitivity of 63 percent and a specificity of 98 percent, when the gender and age of the vehicle occupants were known. Without information about age and gender, the sensitivity was 45 percent, while the specificity was 98 percent.

“Sixty-three percent sensitivity may not sound like an impressive number, but when you look at the experience over the last four to five decades, it is a significant improvement,” said Principal Investigator Dr. Stewart Wang, a trauma surgeon and Director, University of Michigan Program for Injury Research and Education (UMPIRE). “Even trained personnel are no more than 40–50 percent accurate in picking out patients with severe injuries.”

How AACN works

In most vehicles equipped with AACN capabilities, including all those using OnStar, which was the AACN technology reviewed in this study, the call goes to a call center, and the call center then separately contacts the PSAP. A panel of AACN and patient triage experts made recommendations on what telemetry information a vehicle should automatically transmit, although all information may or may not go to the call center and a subset that might typically be sent to the PSAP includes:

- Whether the crash included multiple impacts
- The vehicle’s change in velocity
- The principal direction of force
- Whether or not seat belts were in use
- The type of vehicle

This information offers 911 and EMS personnel three primary advantages when responding to a crash: faster notification of the crash; the exact location information for the accident; and telemetry data, which can be used to predict injury severity and injury patterns.

“The data we can get from AACN adds important information to the data points we can get in-field,” said Dr. Scott Sasser, Associate Director, International
Programs for the Center for Injury Control at Emory University and the principal investigator for a new AACN training course. “This data can help us allocate the appropriate resources to the scene.”

**AACN data going to Emergency Dispatchers**

Systematically routing data to the 911 system should be the starting point in the process, according to experts at the International Academies of Emergency Dispatch (IAED™).

“Emergency Dispatchers are the first place that AACN data bounces off,” said Dr. Jeff Clawson, IAED co-founder and inventor of the Fire, Police, and Medical Priority Dispatch Systems. “Having an actual score to predict injury severity is what is going to get people’s attention. Emergency Dispatchers want to know where they plug that in. That information needs to be taken in and formed in a structured protocol.”

The Academy has been working with OnStar for more than a decade. The Medical Priority Dispatch System (MPDS) Protocol contains two Chief Complaints—priority coded emergency events—involving motor vehicle collisions. Also, IAED provided a CBT lesson as a “Special Procedures Briefing” for Protocol 34: Automatic Crash Notification (ACN).

“We use Protocol 34, which is a protocol to help 911 capture this information when it is just an automatic crash notification,” Dr. Clawson said. “This was based on talking to people in the vehicle and hearing their report of occupants’ status and not telematics. Now, the telematics data can feather right into that existing protocol to help verify and add to what we know about occupants’ status and tease out what is important in a sea of data.”

The algorithm predictions provide information important to emergency dispatchers directing EMS response, and the IAED is developing the programming required to bring AACN data into its existing protocols and capture this data using ProQA™ software.

There is a balancing point in the amount of information that dispatch should receive, Wang said.

“If bad information is passed along to PSAPs or they receive too much data, it is like throwing sand in the emergency dispatch processes,” Wang said. “The expert committee tried very hard to say that when using AACN for the purposes of triage, you should go with a system that communicates high-risk for severe injury, like a red light or green light to the 911 system.”

The ultimate goal is saving lives, Sasser said.

“We want to look at whether AACN can help us lower morbidity and mortality with motor vehicle crashes,” he said.

**Learn more about AACN**

A new one-hour online training program is now available for EMS professionals interested in learning more about AACN technology and the implications of AACN crash data. This course covers current AACN research, biomechanics of crash injuries, how data can be used to predict injury severity, and ways to integrate this data into local 911 and EMS systems. The online training program is supported by the American College of Emergency Physicians (ACEP) and the National Association of EMS Physicians (NAEMSP), with funding from the National Highway Traffic Safety Administration (NHTSA).

Sasser notes that the training program keys into the growing relevance of automatic crash data to EMS.

“We need to know how the information supplied by the vehicle can identify injury patterns and also help with everything from resource allocation to destination decision-making,” he said.

**Sixty-three percent sensitivity may not sound like an impressive number, but ... even trained personnel are no more than 40–50 percent accurate in picking out patients with severe injuries.**

References

Coming Together On The 911 Stress Front

Progress, good news, and crucial next steps

James Marshall
This issue of the Journal of Emergency Dispatch points to steady progress in addressing the 911 industry’s pivotal issue: telecommunicator stress and wellness. As you review the articles written by a wide collection of stakeholders—frontline 911 professionals, scientists, and mental health professionals—you will see that a larger community is gathering to answer the most important question facing 911: “What are the psychological risks of doing 911 work and what are we going to do to ensure the well-being of our telecommunicators?”

This current Journal issue is just one example of this growing momentum in the pursuit of answers to this question. Two recent issues of the National Emergency Number Association’s flagship magazine were also dedicated to 911 wellness (The Call: Fall 2015; Winter 2016). Alliance partners NENA and IAED™ have recently featured entire conference tracks on stress and wellness at their annual conferences. These advances follow the landmark creation of the industry’s first national “Standard on Acute/Traumatic and Chronic Stress,” which calls for all 911 centers to establish Comprehensive Stress Management Programs for their personnel (NENA, 2013). Researchers beginning with Roberta Troxell (2008), then Heather Pierce and Michelle Lilly (2012), followed by Lilly and Christy Allen (2015), and now others are affirming the seriousness of 911 stress-related problems and the importance of finding solutions. Mental health professionals are also educating their clinical peers about 911 traumatic stress and how to bring healing to this population with Evidence-Based Treatments, such as EMDR.

Calling all stakeholders

Such progress is heartening indeed, and now is the time to consider the advancing Next Generation 911 technology. The well-being and peak performance of telecommunicators require that same level of dedicated, coordinated effort by all 911 stakeholders as the highly coordinated planning efforts of stakeholders that have brought NG911 toward its reality.

Next Generation

This fall, the 911 Wellness Foundation will host an industry-wide “Virtual Summit on 911 Stress and Wellness” so that all stakeholders can join to begin shaping a Next Generation 911 Wellness Plan. A full-day summit is seen as an essential event to:

- Launch strategic evaluation of current and predicted stress-related risks for health and performance of 911 professionals
- Define what we have accomplished thus far to address these risks
- Determine what we must do now and in the future as an industry to ensure telecommunicator well-being
- Describe how we will accomplish these objectives through four Streams of Activity: 1) Research, 2) Education and Prevention, 3) Policy and Standards, and 4) Treatment and Intervention

Emergency dispatchers are at the core of our society’s emergency response infrastructure. The success of our 911 system will depend on their well-being. New research suggests that these frontliners can enjoy better health and a higher quality of life than those in less stressful jobs if they are confident and hopeful in the face of these demands (McGonigal, 2015). But we must each do our part to prepare them with this mindset. An ancient proverb declares, “Where there is no vision, the people perish.”

Sources

7 Proverbs 29:18
There’s A Snake In My Room
Normal to react to abnormal situations

As told by Kim Rigden

It was 6 a.m., and a sleepy Kim Rigden could not recall bringing a bathrobe to her hotel. So how did something that looked like a bathrobe sash get coiled around the toilet seat?

As she stood at the threshold of the bathroom, she turned on the light and was shocked into readiness. This was not a sash; sashes don’t slither. The next moment Rigden remembers, she was standing at the open door of her hotel room—as far away from the toilet as she could get—speaking on the phone to the front desk clerk. Her heart was racing. Her hands were sweaty. She felt nauseated.

Yet, the person at the front desk sounded so calm.

“Later, I learned that front desk clerks have something in common with emergency communicators—they both get calls from ‘crazy’ people,” said Rigden, Commander of Communications Education and Quality Improvement, Toronto Paramedic Services, Ontario, Canada.

The desk clerk soon found out that Rigden was not crazy. This was not a sash circling the porcelain. She was sharing her room with a 4-foot-6-inch long ball python left behind by the owner who did not want to report that his snake went missing in his hotel room.

“The hotel has a no pet policy,” Rigden said.

The snake had taken up residence behind the toilet, and Rigden was the first to make its acquaintance.

The incident chilled Rigden to the idea of staying in hotels, which is certainly problematic considering her extensive traveling schedule. When she books a stay, she checks under beds, behind the curtains, in closets, and, of course, behind toilets and under sinks. She calls it consequences of a critical incident stress (CIS) exposure, and the story fit perfectly into her NAVIGATOR session “Stress and the Emergency Dispatcher.”

The python was real, and her reaction was well within the definition of CIS: a normal response by a healthy person to an abnormal event.

“It’s OK to feel overwhelmed by something,” she said. “It’s OK for you to feel symptoms after the event.”

Her symptoms—racing heart, nausea, and fast breathing—were physiological responses to a surprising and stressful situation that had mostly subsided by the time she was giving her NAVIGATOR presentation three weeks later. The fight or flight hormones, adrenaline and cortisol, were most likely back to normal levels. And although she does not relish the idea of a second encounter with a snake, the incident is far from causing post-traumatic stress disorder (PTSD).

That, she said, would be something to be very concerned and proactive about.

PTSD can be triggered by a single terrifying event or an accumulation of stressful incidents piling one on top of another. It is a debilitating mental health condition that can last for months or years, with symptoms including persistent frightening flashbacks, nightmares, and severe anxiety. PTSD can also recast an individual’s emotional reactions and thinking.

“This debilitating stress changes the way you view the world,” Rigden said. “A person diagnosed with PTSD will have difficulty functioning.”

The constant barrage of stressful 911 calls combined with a demanding work environment and conflicts in personal life can set the stage for PTSD, according to various studies focusing on 911 dispatchers. In 2012, Michelle Lilly, a psychology professor at Northern Illinois University, DeKalb, and Heather Pierce, a former 911 dispatcher, analyzed surveys completed by 171 emergency dispatchers from 24 states and found that dispatchers experience high levels of “peritraumatic distress,” defined as the strong emotions felt during a traumatic event. Participants reported experiencing fear, helplessness, or horror in reaction to nearly one-third of the different types of potentially traumatic calls.

A survey conducted at NAVIGATOR 2014 by the Academy’s research team found similar results. Significant
Implement healthy sleeping technique (e.g., have a dark and cool room, white noise, don’t work, don’t look at a device or watch TV)

- Breathe deeply
- Learn relaxation techniques and visual imagery

**Exercise and education**
- Get some good exercise within 24 hours of the incident
- Find an activity you enjoy and keep it up
- Expect the incident to bother you; take comfort in knowing that the incident will not bother you forever
- Learn about traumatic stress; through reading you will feel less abnormal, and the information/empathy can lead to recovery

**Social support of family, colleagues, and friends**
- Talk about it; don’t keep the feelings inside

**Satisfying expression of self and spirituality**
- Do the things that you love to do
- Fulfill your feelings of self-worth outside of the job
- Balance home life, recreation, and work
- Seek your spiritual center
- Talk to spiritual leaders and seek guidance

**Sensible eating**
- Do not use alcohol or drugs to cope
- Avoid refined sugars, fats, and excessive salt
- Avoid excessive caffeine
- Drink lots of water

**Time to enjoy life**
- Find activities you enjoy
- If an incident at work upsets you, talk to someone about it; seek help
- Assess your situation carefully
- Rest and relax

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**Sources**


Anne Raskin is among 10 people on a river raft pulling straight toward long and formidable rapids, standing waves, and boiling eddies demanding coordinated and fast maneuvers under heavy pressure. Raskin and her crew understand moves they must take above dangerous hazards that Class IV rapids require.

The ride down the river is Raskin’s metaphor describing an emergency communication center: dispatchers and calltakers braced at consoles constantly on the alert for unavoidable situations. Risk of injury to callers may be moderate to low, and scene situations may make self-rescue difficult despite the availability of Pre- and Post-Arrival Instructions. Group assistance is required.

“I love the pulling together of the group and at the end of the day, knowing we’ve done something that makes a difference,” Raskin said. “It’s what makes this worthwhile.”

People on a raft heading toward Class IV rapids and people answering and dispatching 911 calls have something else in common: stress.

Broadly speaking, stress is caused by a change in the environment forcing a person to adjust and respond, either fight or flight. As studies show, such constant demand can lead to the kind of stress that builds up over time.

The effects of stress on dispatchers and calltakers in the communication center immediately caught Raskin’s attention. To put it bluntly, Raskin noticed a major focus on food and the cravings for high-calorie foods.

“There are 20 pounds we all put on in dispatch,” said Raskin, who has been with the San Francisco Department of Emergency Management/Department of Emergency Communications for going on 11 years. “I actually gained 30 pounds within the first year but was able to lose 10. I can’t seem to shake the other 20.”

Sure, there’s never a lack of foods high in sugar and carbohydrates within easy reach in the break room, and, sure, staff could avoid the doughnuts, chocolate, potato chips, and fried snacks.

But healthy food isn’t what most dispatchers crave after a call from a mother distraught because her baby isn’t breathing, a young man pleading to save his father who is in cardiac arrest, or a multi-car accident on icy roads resulting in numerous and fatal injuries.

“You’re taking call after call, and when not on a call, you’re on a radio,” she said. “There really is no break, and then you try to eat as fast as you can, and it’s the comfort foods you want.”

The job’s stress triggers emotional eating. In addition, for some, food is a coping mechanism used to replace the real feelings that in a 911 center can result from managerial expectations, lack of time off, and the panic they hear in callers’ voices.

Raskin sticks to a healthy diet, even in the face of a frosted cupcake or bag of potato chips.

“I’m known as somewhat of an oddball because I’m so healthy,” she said. “But I still gained the weight and couldn’t lose it. I started to suspect that the issue was not only about using food as a coping mechanism.”

Raskin did some research, quantifying her suspicions. Habit was only partly to blame; there was also a biochemical element involved. The body’s release of stress-related hormones—adrenaline and cortisol—she discovered were accessory to the problem.

Cortisol and adrenaline are essential to health.

Adrenaline increases heart rate, elevates blood pressure, and boosts energy supplies. Cortisol, the primary stress hormone, increases sugars (glucose) in the bloodstream, enhances the brain’s use of glucose, and increases the availability of substances that repair tissues.

In tandem, cortisol and adrenaline are the “fight-or-flight” hormones; they provide temporary increases in energy, at the expense of processes not needed for immediate survival. Adrenaline is released in response to anxiety, exercise, or fear. Cortisol inhibits insulin production to prevent glucose storage in favor of flooding the large muscles with a direct energy source.

Once the situation resolves, hormone levels return to normal. Chronic stress derails the balance. When the body manufactures too much cortisol over the long haul, the resulting glucose overproduction can

It’s Not All In Your Head
Constant stress triggers biochemical reaction

Audrey Fraizer
wreak havoc on health. Repeated elevation of cortisol leads to weight gain (overeating to satisfy glucose starved cells and cravings for foods high in both fat and sugar), suppresses the immune system (making us prone to illness), and is linked to insomnia, chronic fatigue syndrome, and depression.³

The information corroborated Raskin’s suspicions.

“As long as we have that cortisol flowing through our veins at the wrong time of day, the body will hold onto its weight,” she said. “There are indeed people here that keep gaining and gaining, which I believe is probably due to eating weight-gain-oriented foods, but in this environment, increased cortisol production can increase struggles with weight gain and other stress-related symptoms.”

Although Raskin cannot control work-related events causing stress, she is trying to keep her stress at bay through diet and exercise. She avoids white sugar and brings a healthy stash of food to work. She walks 45 minutes daily, and every other day, she goes to the gym. She talks to co-workers about changes in lifestyle.

“It takes a tremendous amount of awareness to resolve the effects of cortisol,” she said. “The natural inclination is to work out and eat well, but that’s not the whole answer. I don’t know what it does take.”

Rather than give up, Raskin continues to look into the effects of stress and ways to minimize the effects of cortisol. She has also consulted experts specializing in the study of stress, as shown in the Q&A accompanying this article.

She can’t say where the interest will take her.

“We will see as time goes on, won’t we?” she said. ●

**Sources**

3. See note 2.
Q: How does PTSD in dispatchers look different from other forms of PTSD?

A: It does not look different from other forms of PTSD. Individuals who have been assaulted, in motor vehicular accidents, and in disasters all present the same symptoms as are present in telecommunicators. The rate of PTSD across telecommunicators is somewhere between 18 percent and 24 percent, as this percentage of individuals report enough symptoms of PTSD that they would likely receive a diagnosis if they were seen by a psychologist and were formally evaluated. The only sub-classification of PTSD is called delayed onset, which means that PTSD is not developed until after a subsequent event is experienced down the road. PTSD can develop when people have a lot of cumulative trauma exposure.

Secondary PTSD is a different construct. An example of secondary PTSD would be PTSD-like symptoms that develop from hearing about something bad that happened to somebody. According to the DSM (the “Diagnostic and Statistical Manual of Mental Disorders” published by the American Psychiatric Association), hearing about someone else’s trauma has been removed as a potential traumatic event, unless that event is particularly violent in nature. Yet, the DSM has specifically stated that being continually exposed to graphic, traumatic details of events as part of one’s job does fall into the definition of trauma, which of course fits for telecommunicators. In our recent study, we’ve been looking at PTSD symptoms, and it is very clear that even if it does not happen to the telecommunicator, just the fact that they have this recurrent exposure to very traumatic events can lead to PTSD.

Does the data show that repeated exposure to a high volume of 911 calls with trauma can lead to PTSD?

That is a stress response, and absolutely, when we are repeatedly confronted with stressful events, stress reactions occur. PTSD occurs when people handle calls that are particularly distressing or upsetting and that stick with them for a long period of time. The more of those types of calls a telecommunicator handles, the more they are put at risk for PTSD. PTSD is not a stress disorder; it is a distress disorder, so it is kind of mislabeled in that way. PTSD may develop because you have been exposed to events that are potentially traumatizing, distressing, and emotionally upsetting in some way. People will not develop PTSD simply from having a high-stress job.

Q: What symptoms stood out among dispatchers in the study in your opinion?

A: I reviewed the study data prior to this interview and will explain the data regarding symptoms. PTSD has four symptom clusters: 1) avoidance (avoiding thoughts, memories, or feelings that bring back memories of a particularly upsetting call); 2) numbing (feeling detached, feeling as though the world has changed or that the world is a bad, malicious place); 3) hypervigilance (having a strong startle response, feeling on edge all the time, having trouble concentrating or sleeping); and 4) re-experiencing (flashbacks, unwanted thoughts, thoughts about the call that come up repeatedly).

So, when I looked at the data, the most commonly reported symptom by telecommunicators was hypervigilance: feeling keyed up or agitated; feeling on edge; trouble concentrating and sleeping. Some of that is related to the job—being on high alert all the time. I was surprised because I thought that avoidance would be necessary to do the job, as burying certain experiences could be helpful when having to handle similar calls. In fact, it turned out to be one of the lower symptom clusters. Hypervigilance really stuck out. Given that, telecommunicators who present as really keyed up and who can’t calm down and may use alcohol and drugs to fall asleep stand out as having some of the bigger warning signs when looking for telecommunicators at risk for PTSD.

What was very interesting was data that seemed to link job longevity with positive beliefs about the world. Assumptions about the benevolence of the world and people seem to be more positive in veteran dispatchers than in new hires. That said, veteran dispatchers also have the highest rate of PTSD and the lowest job satisfaction. It might suggest that they hold onto those assumptions in order to stay in the job. It also might suggest that people who don’t have compassion or feel that the world is a terrible place cannot survive in the job because their assumptions are attacked on a daily basis.
**Q:** Did you obtain any data comparing smaller agencies to larger agencies?

**A:** Every participant in the study was asked how many telecommunicators were in their communication center. Across the board, the data showed that there were no differences in mental health, physical health, job satisfaction, and coping as a function of agency size. There were very small differences between urban and rural centers. People in urban centers had slightly higher job satisfaction and world assumptions. People in rural settings reported worse mental health (depression). When people were asked if they would quit their job, the No. 1 reason they wouldn’t was pinned to the job benefits and the role of the telecommunicator as the family financial breadwinner.

**Q:** What type of scenario seems to be a key trigger for telecommunicators?

**A:** Definitely kid calls. When asked, “What is the worst call you have ever taken?” nearly a quarter of the participants reported an incident involving a child, regardless of whether it was the death of a child, child-related injuries, sexual assault of a child, etc. Those telecommunicators are at the highest risk for adverse mental health and functioning. Certainly, those calls involving kids would be the types of calls where follow-up with the telecommunicator is warranted. The next-highest incident cited was officer-involved shootings or line-of-duty deaths. The third-highest was ‘other’. Some other type of call that was particularly unique, hard to classify, but also conferred higher risk for poorer outcomes.

**Q:** Did you acquire any data on physical health complaints common among dispatchers?

**A:** Obesity is incredibly high. About 83 percent of telecommunicators in the study were obese or overweight. Fifty-three percent alone fell into the obese category. The U.S. is an obese place, but the U.S. general population has an obesity percentage in the low 30s, so this is 20 percent higher than the general population. On average, there were 17 different health complaints with an occurrence at least once a month, all the way up to once a week. In addition to obesity, the most common complaints were headaches, backaches, insomnia, heartburn, and upset stomach.

Cortisol dysregulation may be a major factor in some of these symptoms. My plans for next steps in studying the 911 field include cortisol functioning as one topic of interest. Looking into cortisol functioning with a telecommunicator sampling in Chicago could provide some hard data regarding why some of these health symptoms are occurring. It may specifically link cortisol to recurrent stress in this job. The other piece is the shift work schedule, which can have a significant impact on physical health. Shift work interferes with sleep, specifically impacting metabolism and the hormone ghrelin that is released when the body does not get enough sleep. Ghrelin prompts hunger signals. So stress, poor sleep patterns, dysregulated cortisol, and the sedentary nature of the job all impact the health of the telecommunicator.

Regarding ideas on how to handle some of these symptoms, there is a lot of interest all over the U.S. in installing treadmills and bikes at telecommunicator workstations. Incentivizing some of these habits might create interest in using these machines.

**Q:** Do you have any conclusions about treatment for telecommunicators after PTSD has set in?

**A:** As a licensed clinical psychologist, I have seen a number of very well-supported treatment approaches for PTSD. Two of the approaches with the most support are prolonged exposure and cognitive processing therapy. Both treatments have been proven effective across a spectrum of cases: veterans, sexual assault victims, assault victims, vehicle accident survivors, etc. These treatments do not require long therapy but are specifically focused on helping the person alleviate their PTSD symptoms. If people could get access to those types of treatments, they would be in a good position to recover from their PTSD.

**Q:** Knowing that some of these things can help people, do you have an opinion on how to help telecommunicators notice their symptoms and treat them?

**A:** Any way to get people on board would be a start. For example, a communication center finding an online PTSD screener quiz and telling employees, “Hey, if you go online and take this quiz, you can have an extra break.” By having telecommunicators actually do some of the online quizzes and engage in wellness checks online, the results could provide telecommunicators with some feedback on their functioning. It may provide some feedback such as, “Hey, you might be at risk for depression.” Incentivizing people to get involved might at least show them that they may have an issue. Extra days off would be a great incentive, although communication centers are chronically understaffed. That would be the first step. I have suggested offering continuing education credits through some of the major 911 organizations to telecommunicators who participate in online interventions. That would be one way of ensuring they would continue being taken care of. Peer support programs have promise. Leaders within the call center who are more informed front-line people and know about the resources, but are not supervisors, might be a less threatening way to bring support to employees.

Dr. Lilly published a new study titled “Psychological Inflexibility and Psychopathology in 9-1-1 Telecommunicators” in the April 2015 issue of the Journal of Traumatic Stress.
Employment and stress are something of a “Catch-22” in emergency communications.

To hire dispatchers and calltakers able to handle a constant stream of unpleasant and stressful situations, you want to know how an individual might cope in these types of situations. But in order to recognize the individual’s ability to handle these types of emergencies, there must be situations to test the individual’s ability to do so.

And the last thing you want to do is expose an employee to an event that could spark a potentially life-altering condition leading to post-traumatic stress disorder (PTSD).

“Stress has always been here in emergency communications,” said James Lake, Director, Charleston County Consolidated 911 Center in South Carolina. “But in the last five to seven years, we’ve realized the events heard over the phone could be as bad as seeing the incident, and we don’t want to put a person in a triggering event.”

PTSD develops in some people involved directly or indirectly to a traumatizing event. People with PTSD may feel stressed even when not exposed to a threatening event.

Studies have shown that emergency calls involving children are particularly difficult as well as calls where emergency dispatchers hear someone die, whether it is from injuries or suicide. The on-duty death of a responder is also difficult to block out.

“It’s not so easy to shake some of the calls,” Lake said.

The triggering event isn’t always predictable, and there’s a host of possibilities represented by the Academy’s fire, police, and medical Chief Complaints. The event could be personal, such as a family history of domestic violence that triggers a bad reaction from a call involving a spouse physically or verbally abusing the other spouse. It also could be an event that occurred at a former job in emergency communications.

The onset of symptoms also varies from within several weeks of the incident, to months and years afterward. Considering the lag time, an individual might not recognize the symptoms—depression, difficulty sleeping, and dulled emotions, for example—and, in the hiring process, the applicant does not acknowledge the potential of experiencing a stress-induced reaction.

If and when a reaction does happen, there’s no going back to the source. A calltaker or dispatcher might recognize events from the past instrumental to a present reaction, but the fault lies in the current position.

Admitting there is a problem and allowing someone to help takes a great deal of strength.
“The call or event might have occurred somewhere else, but the responsibility lies with the place where the response to stress occurred,” Lake said.

Lake has seen the effects of overload and stress on personnel during his 30 years in emergency communications. He knows the havoc that untreated stress can play on a person’s life, and he understands the hesitancy of 911 personnel to admit there is a problem.

“Often, telecommunicators perceive admitting they need help as a sign of weakness when in fact admitting there is a problem and allowing someone to help takes a great deal of strength,” he said.

He also knows he cannot base hiring on perceptions of an applicant or a known incident that caused the applicant stress in the past. Not only would that be the wrong thing to do, Lake said, but there are also protections in place to keep that from happening.

An employee diagnosed with PTSD is protected under the Americans with Disabilities Act (ADA), Lake said, and, consequently, preserves the individual’s right to stay employed at the communication center through the ADA’s reasonable accommodations provision. For example, a person experiencing trauma induced at a calltaking position could accept a career transfer to radio dispatch. Other options to treat PTSD include training on how to manage stress, utilizing employee assistance programs, and the opportunity to meet with a chaplain or other counselor skilled in helping individuals work through trauma.

“The end goal is to get people the appropriate help,” Lake said. “We’re trying to take care of our people, but, at the same time, they have to find ways to take care of themselves.”

Sources


2 See note 1.
regularly exposed to difficult calls and only minimally studied in terms of the effects on them.”

Sawyer plans to collect data through an online survey to dispatchers employed at various police, fire, and ambulance associated emergency centers to validate “what’s going on out there.” By March, she had contacted several agencies, predominantly in the southeastern U.S., eliciting interest not only in the topic but, also, her voluntary and confidential approach to the study. Participants complete the surveys anonymously, and personnel at the centers enrolled in the study are not required to participate. Depending on the time it takes to collect data, she looks to late summer for preliminary results.

She said initial goals include developing a better sense of day-to-day operations at a communication center and—through the data collected—learning more about how constant exposure to traumatic events influence mental health, professional burnout, coping strategies, and beliefs about the world. She also wants to dig deeper into the factors that promote career longevity and resiliency that she noted in the data from her past research into emergency services.

“My research suggests there is more burnout [attributed to stress] among shorter-term public service emergency people,” she said. “Maybe individuals longer on the job develop resiliency. They have learned ways to cope.”

Although the current study will not directly involve members of the military community, it complements her research interests in trauma, post-traumatic stress disorder, and development of evidence-based treatment.

“I am drawn to populations where the data is lacking,” she said. “Not knowing the extent that telecommunicators are affected by their job evolved into a concern. The study should help to better understand what they’re going through and what they need to help develop coping skills to maximally do their job.”

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**A Helping Hand**

Comm. centers have programs to help staff cope with stress

*Josh McFadden*

When it comes to stressful jobs, being an emergency dispatcher has to be near the top of the list. While many jobs bring with them stressful situations that include deadlines, complicated problems, heavy burdens, and fiscal responsibility, few literally deal with life and death—multiple times throughout each day.

And it happens call after call.

Fortunately, many centers around the world are doing something to help staff members deal with and overcome the relentless onslaught of stress.

**Peer Support Program**

The staff at SA Ambulance Service (SAAS) in Adelaide, Australia, are serious about helping dispatchers cope with stress. Staff members volunteer to participate on the center’s Peer Support Program, which helps mitigate stressful situations for fellow employees. Volunteers are trained on how to best help those in need. Program Development Manager Liz Charles explained how this program functions.

“When an event has the potential to be stressful (personal or work related), staff are proactively contacted and provided support at an appropriate level determined at the time,” Charles said. “It may be just a phone call, coffee catch-up, further catch-ups, or nothing required. If the event is deemed extra difficult, we will bring in professional psychologists to support the staff as needed.”

SAAS works with four psychologists and a chaplain to address and assess issues staff members are having. The center also provides phone numbers and websites of various additional resources that employees may contact to discuss challenges they’re facing or to simply find someone with a listening ear.

Supervisors or managers may suggest the program to staff members as a way...
Employees are able to take steps to help them appropriately handle future calls that would be similar to this one. "We pride ourselves on providing resources for our employees," Logan said. In December 2015, the center dealt with the tragedy of a police officer line of duty death. In just over two hours after the incident, Dane County jumped into action by providing a crisis counselor in the communication center. The counselor was on hand to visit one-on-one with any staff member who needed to talk, whether or not that person was directly involved with the event. It was a completely voluntary activity. Later that evening, a Critical Incident Stress debriefing session was held for all police, fire, EMS responders, and dispatchers who needed extra help dealing with the tragedy. Meetings such as these are held to facilitate closure and reconstruction and to allow discussion among participants in an effort to cope with the stress brought on by the event, Logan said.

Don't lose hope

Every person is different, and every incident affects people differently. While one dispatcher may be able to shrug off one dramatic call and move on without ill effects, another dispatcher may be rendered incapable of performing his or her regular duties.

No one in this profession is immune to stress, and there is no shame in requesting help. If you find yourself feeling a greater amount of stress than usual, or if you are experiencing adverse physical, emotional, or psychological symptoms, speak to a member of your center's management team and start the healing process. •

No one in this profession is immune to stress, and there is no shame in requesting help.

Employee Assistance Program

Stress management and stress coping are also important topics at Dane County Public Safety Communications in Madison, Wis. The department understands that stress is a part of the job and that staff members do respond to incidents that cause psychological distress or emotional strain. The center has instituted an Employee Assistance Program to help victims recognize such events and for colleagues to know how to react to the person having the issue. This program is available to staff members 24 hours a day, seven days a week, 365 days a year and covers stressful, traumatic situations including:

- Serious injury or death of any on-duty Public Safety Communications member
- Serious injury or death of a fellow employee
- Suicide or homicide of an employee
- Any incident that can be considered a serious physical or psychological threat to an employee in the line of duty
- Loss of life that follows extraordinary and prolonged expenditures or physical or emotional energy in a rescue attempt
- A series of incidents that may have cumulative effects
- An incident with unusual circumstances that produces immediate or delayed emotional reactions that surpasses normal coping mechanisms

A couple of recent events in the lives of Dane County dispatchers underscore how helpful the program has been.

“Obviously, this was a terrible situation with a lot of associated stress as part of the grieving process. Subsequent to this episode, this same employee answered a 911 call from a mother experiencing a similar situation, and this ‘landmine’ triggered many of the past emotions and caused a fairly significant stress reaction.”

Through the program, the employee was able to take steps to help her appropriately handle future calls that would be similar to this one.

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Denise Thompson thought it was a cosmic sign to change her life. She loved her job as a calltaker at Charleston County Consolidated 911 Center, S.C., but something was pushing her to pack up the car and return to her home state of Michigan.

It didn’t take long for Thompson to realize leaving South Carolina wasn’t about a midlife crisis, job burnout, or nostalgia for the place where she was raised. Michigan wasn’t the cure-all, although the move back to her home state allowed her to tie up a few loose ends and—maybe more importantly—grasp the message the cosmos had intended. She was grieving over the death of her sister two years earlier.

“I was sorting through boxes of her stuff,” Thompson said. “It was causing me a lot of pain—the memories—and that’s when I started thinking. Stress from the job was part of it, but it wasn’t the cause.”

The unexpected loss of her sister from sudden cardiac arrest (SCA) was not the first in Thompson’s list of personal tragedy. Her mother, father, and step-dad had died over a four-year period between 2005 and 2009, and, after each death, rather than mourning, she did what all good communication center professionals might do. Thompson went on to the next day. She shoved the sorrow into compartments and locked them away, never to be felt again.

“You can’t do that forever,” she said. “Sooner or later, there’s no room for any more compartments. Eventually, you reach overload.”

Thompson’s final straws were two 911 calls, and they were the types of calls that the self-described law enforcement enthusiast would typically handle with no problem. The first was a call she answered involving a Snapchat message that led to the fatal stabbing of a 16-year-old male in January 2015. The second was in June 2015 when she was on duty for a call garnering national attention: the murder of nine congregants at Emanuel African Methodist Episcopal Church in Charleston by a shooter later indicted on federal hate crime charges.

“After that call I wondered where my adrenaline pump had gone,” she said. “I wanted to smoke a bunch of cigarettes, listen to Rod Stewart as loud as my radio would go, and drive 75 miles per hour away from the center.”

Fortunately, she chose the safest high-octane option—Stewart music—and drove home under the speed limit.

“I was maxed out,” she said. “My compartments were overloaded.”

She was in Michigan within three months. Although the job sorting her sister’s belongings was wrenching, it also was an inroad to decompression and, as Thompson explained, confronting the grief she had locked away.

“I could feel myself unwinding,” she said. “The compartments were emptying.”

Less than four months later, Thompson headed back to South Carolina, where one of her adult children lives. Thompson was eager to go back to calltaking and contacted her former supervisor at the Charleston County Consolidated 911 Center.

In retrospect, she had never wanted to leave.

“Michigan was my past, and Charleston was where my life was now,” she said.

She admits emergency calltaking is stressful, but so is life, she said, and the reaction to the avalanche of unresolved emotions—packing up and leaving—influenced Thompson to change a few things. She eats healthy (and has lost 60 pounds), she goes for walks, and she developed into a DIY home project painter to distract her during off-duty hours. She’s on guard for the signs of overload.

“The job drains your emotions,” she said. “You have to figure out what’s causing you stress and what to do about it or the same thing that happened to me could happen to you. I’ve learned it’s all about balance and boundaries and being aware of what will trigger stress in your life.”

It’s all about balance and boundaries and being aware of what will trigger stress.
Relieve The Stress
Yoga balances mind, body, and spirit

Ryan Dedmon, M.A.

Jamie Zeller spent 18 years as a dispatcher with the Escondido Police Department, Calif., answering every type of 911 call imaginable, and, at the same time, she served as a tactical dispatcher on incidents that required SWAT team response.

She admits to the stressful nature of the dual role, and similar to most people in highly demanding careers, she ignored the signs of accumulated stress until the effects were almost overwhelming.

Rather than giving up public service, Zeller turned to yoga.

“Yoga carries over to the dispatch floor because you can easily do deep-breathing exercises while plugged in sitting at the console,” said Zeller, who started yoga seven years ago. “It really helps relieve tension.”

Yoga is perfect for emergency dispatchers, said Dina Jump, a yoga instructor in Las Vegas, Nev.

“Yoga is about teaching people how to live minute-to-minute with life’s ever-changing challenges,” she said. “People always say, ‘I can’t do yoga because I’m not flexible,’ but that’s exactly why you do yoga, so you get flexible—not in a crazy bendy way to become some kind of contortionist, but to learn to bend so you won’t break.”

What is yoga?

Formal definitions describe yoga as a multi-disciplinary approach to balancing the mind, body, and spirit and incorporating different techniques of stretching, posing, breathing, mantra (chanting), and meditation in order to create more sustained joy. Yoga may help reduce stress, lower blood pressure, and lower heart rate.

That’s not all of what yoga is about, according to Ashley Arroliga, a certified yoga instructor and the founder of Apothecary Yoga, Irvine, Calif. Yoga, she believes, also brings a deep self-awareness to the present state in place of thinking about the past or the future.

“Many people live in the past or in the future,” Arroliga said. “This causes feelings of guilt or shame for what has happened in the past or anxiety worrying about things to come in the future. Neither of those feelings exists in the present.”

It’s not only yoga instructors advancing the practice. According to several studies, there is growing evidence that yoga can reduce the symptoms of post-traumatic stress disorder (PTSD) and enhance overall well-being.

For example, a study on the effects of sensory-enhanced yoga on symptoms of combat stress found Hatha yoga effective in reducing state and trait anxiety and with a potential to effectively address symptoms before they develop into full-blown PTSD.

State anxiety describes the unpleasant feelings when an individual is confronted with specific situations, demands, or a particular object or event. Trait anxiety refers to the differences between people in terms of their tendency to experience state anxiety in response to the anticipation of a threat.

A second study found a short-term yoga program reduced trauma symptoms in women with PTSD. In this study, 16 women between the ages of 25 and 55 were randomly assigned to either eight sessions of a gentle 75-minute Hatha yoga class or to a Dialectical Behavior Therapy (DBT) group. After eight weeks, the yoga participants, compared to the DBT participants, reported a greater reduction in frequency of all PTSD symptoms as well as greater gains in vitality and body attunement.

Hatha yoga, mentioned in both studies, is frequently used to describe a slower-paced stretching class to learn beginners’ poses and relaxation techniques.

Happier and healthier

As practitioners attest and studies indicate, yoga and other mindful meditation provide another way to build resiliency to psychological and emotional stresses of the job. If dispatchers are more self-aware of their thoughts and feelings, they can also do a better job of managing their stress levels, making them healthier and happier dispatchers.

Sources
Stress And The Workplace
Americans with Disabilities Act covers post-traumatic stress disorder

Title I of the Americans with Disabilities Act (ADA) prohibits an employer from treating an applicant or employee unfavorably in all aspects of employment—including hiring, promotions, job assignments, training, termination, and any other terms, conditions, and privileges of employment—because the person has a disability, a history of having a disability, or because the employer regards the person as having a disability.


What is a “mental impairment” under the ADA?

The ADA rule defines “mental impairment” to include “[a]ny mental or psychological disorder, such as emotional or mental illness.” Examples of “emotional or mental illness[es]” include major depression, bipolar disorder, anxiety disorders (which include panic disorder, obsessive compulsive disorder, and post-traumatic stress disorder), schizophrenia, and personality disorders. [However], even if a condition is an impairment, it is not automatically a “disability.” To rise to the level of a “disability,” an impairment must “substantially limit” one or more major life activities of the individual. U.S. Equal Employment Opportunity Commission. 1997; March 25. http://www.eeoc.gov/policy/docs/psych.html (accessed March 25, 2016).

How long does a mental impairment have to last to be substantially limiting?

An impairment is substantially limiting if it lasts for more than several months and significantly restricts the performance of one or more major life activities during that time.


What are the symptoms of PTSD?

Possible symptoms associated with PTSD are re-experiencing, avoidance, negative cognition and mood, and arousal. Re-experiencing involves spontaneous memories of the traumatic event, recurrent dreams related to it, flashbacks, or other intense or prolonged psychological distress. Avoidance refers to avoiding the distressing memories, thoughts, feelings, or external reminders of the event. Negative cognition and mood represent countless feelings, from a persistent and distorted sense of blame of self or others, to estrangement from others or markedly diminished interest in activities, to an inability to remember key aspects of the event. Arousal is marked by irritable, angry, aggressive, reckless, or self-destructive behavior; sleep disturbances; hyper-vigilance; or related problems (American Psychological Association, 2013).

Are employees with PTSD required to disclose their disability to their employers?

No. Employees need only disclose their disability if/when they need an accommodation to perform the essential functions of the job. Applicants never have to disclose a disability on a job application or in the job interview, unless they need an accommodation to assist them in the application or interview process (EEOC, 1992).

Can an employer ask an employee with PTSD to submit to a medical examination?

Yes, if the need for the medical examination is job-related and consistent with business necessity. Typically, employers will ask an employee with PTSD to submit to a medical examination (also called a fitness-for-duty exam) after the employee had an incident on the job that would lead the employer to believe that this employee is unable to perform the job, or to determine if the employee can safely return to work, and if any accommodations will be needed on the job (EEOC, 1992).

Special note: Pre-job offer medical examinations or inquiries are illegal under the ADA. People with PTSD (or any disability) do not have to submit to a medical exam or answer any medical questions until after they are conditionally offered a job (EEOC, 1992).

Can an employer discipline an employee with PTSD who violates conduct or performance standards?

Yes, an employer can discipline an employee with PTSD who violates conduct standards or fails to meet performance standards, even if the behavior being exhibited is caused by the employee’s disability. However, an employer is obligated to consider reasonable accommodations to help the employee with PTSD meet the conduct or performance standards (EEOC, 1992).

As with any new program, the correct application and realizing true impact often requires several “re-boots”. The SLC Medical Priority Dispatch program was initiated “officially” in September of 1979, but compliance was haphazard, and the prioritization of response wasn’t fully applied. A new fire chief, from LA County, Pete Peterson’s first statement to Dr. Jeff Clawson was that he had read about SLCFD’s novel program “in the literature” and then went on to provide the necessary support by his administration to require it be used consistently and more in the way intended to reduce unnecessary multiple unit responses and light-and-siren use. The proof of this second “push,” was then determined to be an amazing 50% reduction of the total vehicles sent, and a 50% reduction in L&S use. A significant part of the success was that all ALPHA-level calls (30%) were transferred directly to the local BLS service, Gold Cross Ambulance, for response, care, and transport—wherein the fire department “didn’t turn a wheel.” Chief Peterson later reported to City Hall and the press, that by also reducing unnecessary response and personnel tie-up, a secondary benefit was that their building inspections, hydrant checks, and training processes were all significantly increased due to the changes.
Priority Dispatching

S.L. Paramedic Plan Streamlined

By Dan Bates
Tribune Staff Writer

As of Friday, siren and flashing red lights around Salt Lake City will be reduced somewhat as the fire department streamlines its paramedic operation to respond primarily to life-threatening emergencies only.

A cut on the finger, for example, may no longer get a resident a full paramedic team and an engine company as backup. The victim may get an ambulance and treatment by trained emergency medical personnel.

The key to the six-month trial program will be better training for fire department dispatchers, using “priority dispatching,” in which a caller reporting a medical emergency will be responsible for providing critical information fast enough to determine what help is needed.

Calls Coached

The callers will be coached by fire dispatchers who will rely on a quick reference card system and instruction they have received in interviewing callers. The dispatcher will tell the person what to do until help arrives and attempt to prioritize symptoms in judging the degree of the emergency.

All of this is designed to leave the city’s paramedics available for more serious calls and fire department officials say priority dispatching is working in 35 other states and Canada.

The program was designed by Jeff Clawson, an emergency room physician at Cottonwood Hospital and fire surgeon for the Salt Lake City fire department. He and Fire Chief Peter O. Pederson detailed the concept for reporters Wednesday.

Know What to Ask

Dr. Clawson said it will take persistence to get the caller to explain the problem in 20 or 40 seconds, but that the fire dispatchers will know what to ask. He said his experience with the concept indicates callers generally do not panic and adequate assistance is provided.

The biggest problem in the past has been a dual response,” in which ambulance emergency medical technicians and paramedics both respond to a call that turns out to be a minor emergency, said Dr. Clawson.

Chief Pederson said he is confident the system will succeed because of the department’s cooperative relation with the Red Cross, the private ambulance service in the city. He added, however, that if there is confusion or a lack of data on a medical call, dispatchers will not hesitate in summoning paramedics to the scene.

Dr. Clawson said another benefit of the program will be the elimination of unwarranted emergency runs — with fire equipment and ambulances deploying sirens and red lights while traveling at a faster speed — that endanger personnel and the public.

Another aspect of the paramedic streamlining will be shifting paramedics into a dual role as firefighters, basically an economic move.

Chief Pederson said as of Friday the department will take two paramedic vehicles out of service and reassign trained medical personnel to fire engine units. The department will keep two paramedic trucks operative.

The idea, said the chief, is to return paramedics to a responsibility for which they are originally hired: firefighting. This reduces a problem with “burnout” that many paramedics encounter when only handling medical emergencies, Chief Pederson said.

The department will save about $150,000 a year by either storing or selling the two paramedic units and eliminating six positions through attrition, the chief said.

Instead of a paramedic unit with two men and a fire engine with four responding to a medical call, an engine will arrive with five firefighters, two of whom are paramedics.

Dr. Clawson alluded to some recent criticism in the past among firefighters toward paramedics, who earn 10 percent more. But reassignment to engines as paramedics-firefighters should minimize those feelings, he said.
Residential or dwelling fires are the most common and most deadly type of fire almost everywhere in the world, far outnumbering other types of fires in terms of numbers, injuries, and fatalities. Moreover, “Fire is the third-leading cause of death in the home,” right after falls and poisonings.

While residential fires are only a portion of the overall classification of structural fires, the numbers are startling, particularly considering these statistics from the Federal Emergency Management Agency (FEMA): Despite residential structure fires accounting for 25 percent of fires in the U.S., they account for a disproportionate share of losses—83 percent of fire deaths, 77 percent of re-injuries, and 64 percent of direct dollar losses.

Check a clock. Start at the one-second mark and pause at 64 seconds. During that time, one minute and four seconds, a fire department somewhere in the United States is responding to a structure fire.

That is the 2014 statistic from the National Fire Protection Association (NFPA), and the numbers tend to climb each year. In 2014, there were 494,000 structure fires in the U.S., causing 2,860 civilian deaths and $9.8 billion in property damage; one home structure fire was reported every 86 seconds, and one civilian fire injury was reported every 33 minutes.

In New Zealand, there were 5,434 structure fires in 2012–2013, which represents a 36 percent increase over the 3,406 structure fires reported in 2011–2012. In the U.K., of the 154,700 fires reported between April 2014 and March 2015, nearly 20 percent (28,200) were accidental structural fires (called dwelling fires). The Office of the Fire Marshall and Emergency Management in Ontario, Canada, reported 59,353 fires from 2009 to 2013, of which 47 percent occurred in residential structures (25 percent occurred in non-residential settings, such as business buildings). Of the remainder, the majority was wildfire.

The truth behind fires

Although we all know that structure fires can be dangerous incidents, common misconceptions about these situations can lead to increased danger for lay people and bystanders on the scene.

The first misconception is that fire spreads throughout a structure slowly enough to allow time to gather belongings or even stay in the building until the fire department arrives. In reality, structure fires can spread extremely quickly. Remember, “A fire can double in size within seconds.” In addition to underestimating the speed of a structure fire's spread, many people also underestimate the danger caused by smoke. Because fire creates light, we often believe that a fire-filled structure will be very well lit. This is far from the case. In fact, a structure that is on fire will likely be filled with black smoke so thick that it is often impossible to see. Even firefighters must often feel along the edges of walls to find their way through the dense, obscuring smoke.
People also underestimate the danger of fire.

If a fire alarm sounds, or if smoke is seen inside a building, many people won’t leave immediately. They look around to see what others are doing. If others aren’t leaving, they may assume the situation is safe. Each person is reinforcing the unsafe behavior of the group.

Many people rush back into fires to save loved ones or rescue pets when, in reality, this is a common way that people die in fires. It is important for the EFD to emphasize the Victim’s First Law of Survival: Once you are out, stay out!

**Dispatch Life Support (DLS)**

The safety of responders and people on the scene is always the priority. This is why the protocol often prompts the EFD to provide PDIs and PAIs to callers as soon as possible to help them get to safety or avoid danger.

In this article, we will look closely at life safety and DLS Instructions—PAIs and PDIs—the EFD provides when using the Fire Priority Dispatch System™ (FPDS®) Chief Complaint # – Structure Fire.

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

PDI-a can provide enough assurance to calm an excited caller and move the case forward more effectively. Additionally, letting callers know that you will tell them exactly what to do next may relieve the anxiety associated with not knowing what to do and give them the confidence they need to keep themselves safe.

**PDI-b** is “If it’s safe to do so, leave the building, close the doors behind you, and remain outside.” Remember that the caller is the only person who can truly determine the safety of his situation, which is why this instruction includes the phrase, “If it’s safe to do so.”

Many people are unaware of the significant difference closing a door can make. Depending on the construction of the door and the structure, a closed door can contain a fire within its room of origin for an extended period of time.

Note that this PDI includes the Pre-Instruction Qualifier, “(Inside building or Appropriate).” Anytime you believe the caller may still be inside the structure, provide PDI-b to help guide him to safety.

**PDI-c** is “Do not try to put the fire out.” Many people wonder why the EFD would not encourage the caller to put out a fire, particularly if it is small. There are several reasons for this instruction. First, the EFD cannot know exactly how large or small the fire is and therefore cannot know how dangerous it might be for the caller to try to put it out. Second, although the fire may be small enough for the caller to put it out herself, the EFD should always avoid providing instructions that may lead the caller into danger.

In many cases, it is the person who attempts to put out the fire that is injured or killed. Remember, fires spread faster than most people believe. Always provide PDI-c if any fire or smoke has been reported.

**PDI-d** is “Do not carry out anything that is on fire.” Many people, especially homeowners, will attempt to mitigate the fire damage by carrying flaming items out of the building. For example, if a trash can catches fire or there is burning grease in a pan, they might attempt to carry the item out to try to contain the fire. In fact, this is far more likely to spread the fire than to contain it, and it may well injure the person in the process. Providing PDI-d can help contain the fire and reduce the potential for injury.

PDI-e is “If it’s safe to do so, activate the alarm as you leave to warn others. Do not use the elevator.” This PDI includes a Pre-Instruction Qualifier indicating that it should only be provided when the caller is reporting a fire in a commercial or industrial building or in a multi-dwelling structure such as an apartment building.

Although in many cases a fire alarm will already be sounding, this is not always the case. Sometimes, fire and smoke detectors are placed rather far apart, or they may not be placed in the location of the fire.

Protocol B provides instructions for Fire and Hazards Rescue. Instructions for a number of different types of fire and hazard situations are included on this protocol. The instructions for a first-party caller trapped in a building fire appear first, in Panel B-1.

The instructions begin with two questions that help you gather information that will help the rescuers locate the trapped person. Ask these questions first, then provide the instructions, starting with the instruction “If it’s safe to do so.”

This leaves the caller with the ability—and the responsibility—to determine whether it is safe to execute the instructions.

Notice that these instructions are primarily intended to help the caller avoid the smoke and heat of the fire for as long as possible, including instructions to “Stay low to the floor,” “Close the door immediately,” “Cover the cracks in the doors with wet clothes, towels, cloths, drapes, or anything else that is readily available,” and “Cover the air vents, if needed.”

The instruction to not break any windows is based on the fact that air feeds a fire; opening a window can actually increase the spread and intensity of the fire.

The instruction “Do not use the elevator” reminds the caller that elevators may not work, may suddenly fail, and may be otherwise dangerous, in a fire.

Finally, the last instruction reminds the caller to “Make yourself known to the firefighters when they arrive—wave, call out to them, yell for help.” In some cases, callers may not know that they are not visible, or they may be so busy hiding from the fire that they forget to call out. This
Remember that the caller must spontaneously provide hazardous materials information.

If the caller has indicated that hazardous materials are present, you should link to B-4 to provide instructions regarding possible contamination. Remember that the caller must spontaneously provide hazardous materials information. Only use these instructions if the caller has mentioned HAZMAT and no other, higher-acuity instructions are applicable.

Note the Pre-Instruction Qualifiers on B-4 that determine which of these instructions you should provide.

If none of the other DLS Links apply, you will link to X-2 to stay on the line with the caller or X-3 to make an urgent disconnect. In general, you should stay on the line with structure fire callers to provide instructions if it becomes necessary to do so and continue to gather information if the scene or situation changes.

Information from the CDE Advancement Series was included in this article.

Sources


3 See note 2.


YOU MUST BE FIRE CERTIFIED TO TAKE THIS QUIZ

Answers to this quiz are found in the article “Life Safety Is Priority,” which starts on page 38. Take this quiz for 1.0 CDE unit.

1. While residential structure fires account for only 25 percent of fires in the U.S., they account for a disproportionate share of life and property losses.
   a. true
   b. false

2. In Ontario, Canada, of the reported 59,353 fires from 2009 to 2013, what percentage occurred in residential structures?
   a. 84 percent
   b. 63 percent
   c. 47 percent
   d. 32 percent

3. A structure that is on fire will likely be filled with:
   a. light making it easy to see.
   b. black smoke so thick that it is often impossible to see.
   c. light making it easy to see.
   d. black smoke so thick that it is often impossible to see.

4. The Victim’s First Law of Survival is:
   a. once you are out, go back in to warn others to get out.
   b. once you are out, only go back in to look for a missing child.
   c. once you are out, only go back in to rescue a trapped family member.
   d. once you are out, stay out!

5. Anytime it is believed the caller may still be inside the structure, the EFD should provide this instruction to help guide him to safety:
   a. “I’m sending the fire department to help you now.”
   b. “Stay on the line and I’ll tell you exactly what to do next.”
   c. “Do not use the elevator.”
   d. “If it’s safe to do so, leave the building, close the doors behind you, and remain outside.”

6. The instruction to not break any windows is based on the fact that:
   a. breaking glass or walking on broken glass could cause injury.
   b. air feeds a fire; opening a window can actually increase the spread and intensity of the fire.
   c. the people trapped inside should stay low to the floor and not stand up to break a window.
   d. the person breaking the window could accidentally slip and fall out of the window.

7. If the EFD has time, he or she should return to the questioning sequence to gather further information from the caller before responders arrive on the scene.
   a. true
   b. false

8. If the caller cannot take the phone with her, the EFD will end the call after providing this instruction:
   a. “Do not carry out anything that is on fire.”
   b. “If it’s safe to do so, leave the building, close the doors behind you, and remain outside.”
   c. “If it’s safe to do so, activate the alarm as you leave to warn others. Do not use the elevator.”
   d. “Call us back from a safe location, if possible. If you can’t call us back, make yourself known to the firefighters when they arrive.”

9. The EFD may need to provide the Person on Fire instructions at or near the end of the call, not always at the beginning.
   a. true
   b. false

10. In general, the EFD should stay on the line with structure fire callers to provide instructions if it becomes necessary to do so and continue to gather information if the scene or situation changes.
    a. true
    b. false

To be considered for CDE credit, this answer sheet must be received no later than 08/31/17. 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.
THE SOONER, THE BETTER
Time is critical in identifying stroke

Audrey Fraizer

The sooner they can call it, the better the outcome will be.

That’s the philosophy behind the continued and intense development of EMS stroke protocols for Polk County Fire Rescue, Bartow, Fla., and the Stroke Diagnostic (Dx) Tool released in the Medical Priority Dispatch System™ (MPDS®) Version 12.1 (2010) and most recently updated in MPDS v13.0.

The Polk County Fire Rescue guidelines, updated in January 2015, are tiered to identify a potential acute cerebral vascular accident (CVA) or stroke; categorize the severity of the CVA; and, based on severity, determine the appropriate destination (primary or comprehensive stroke treatment center).

The Stroke Dx Tool enables EMDs to notify stroke centers early in an effort to decrease the time from symptom onset to definitive treatment and help hospitals prepare and improve patient outcomes.

“Time is really critical with stroke patients,” said Dr. Paul Banerjee, Medical Director, Polk County Fire Rescue, during the NAVIGATOR 2015 presentation “Incorporating EMD Stroke Protocols in Field Parameters.” Polk County Fire Rescue Communication Center Systems Manager Sally Jackson co-presented.

“Our goal is to get acute stroke patients to the right place in the right time frame,” Banerjee said.

**Stroke**

Stroke is a medical emergency caused by the blockage of oxygen-rich blood to the brain (ischemic) or sudden bleeding in the brain (hemorrhagic). A TRANSIENT ISCHEMIC ATTACK (TIA), or “mini-stroke,” is caused by a temporary interruption of blood supply to the brain, resulting in a sudden and brief decrease in brain function and STROKE-like symptoms, lasting one or two hours, but no more than 24 hours (MPDS v13.0, Protocol 28, Additional Information).

Symptoms—including sudden and severe headache; paralysis or numbness of the face, arms, or legs; and trouble speaking, hearing, or understanding speech—are associated with the part of the brain damaged. For example, stroke to the left side of your brain affects the right side of the body and, also, commonly results in some degree of aphasia (loss of the ability to understand or express speech).

**Time is of the essence**

“Time is brain,” said Banerjee, meaning that stroke care should emphasize the rapid and aggressive triage and intervention to prevent the irretrievable loss of nervous tissue as a stroke progresses and therapeutic intervention is delayed.

A stroke patient loses 32,000 brain cells every second and 500 miles of myelinated brain fiber every hour. The fatty substance myelin wraps around nerve fibers to increase the speed of communication. Banerjee said that the 500 miles of lost
myelin fibers is equivalent to driving from Jacksonville, Fla., to Key West.

“Just imagine losing that much road every hour you experience a stroke,” he said, emphasizing the amount of damage during the first hour after a stroke occurs.

Treatment depends on the type of stroke and, in the event of TIA, it depends on cause, time elapsed from symptom onset, or when the patient was last seen normal and the patient’s other co-morbid medical conditions.

If a person is presenting stroke-like symptoms, immediately call 911 to initiate transport to the hospital. Paramedics will assess the patient’s motor deficits and mental status.

EMS transports approximately two-thirds of all stroke patients to hospitals and, according to Banerjee, these patients have much greater outcomes than “walk-in” patients to the emergency department.

“People undermine what they have,” he said. “They think they can drive to the hospital or have someone drive them. This wastes precious time to treatment, delaying time to a computed tomography (CT) brain scan, stroke team activation, and early neurology consults. Calling 911 and coming by ambulance can change the whole ball game.”

Polk County Fire Rescue evaluates patients for possible stroke based on the caller’s description using both the MPDS Stroke Diagnostic Tool—the first stage in prehospital care—and a modified version of the Los Angeles Motor Scale (LAMS), which is administered by the arriving paramedics. LAMS assigns points to symptoms—facial droop, arm weakness, and speaking—and the final score helps identify the level of motor deficit in the patient having a stroke. This helps Polk County Fire Rescue determine in the field the level of care necessary for the stroke patient to transport to either a primary or comprehensive stroke center.

Primary stroke centers represent a wide range of hospitals that offer standard stroke care, use Tissue plasminogen activator (tPA), and often have a designated stroke unit. A complex stroke patient requires advanced diagnostic imaging and treatment procedures by specially trained physicians and other health care providers.

**People undermine what they have. They think they can drive to the hospital or have someone drive them. This wastes precious time to treatment, delaying time to a (CT) brain scan, stroke team activation, and early neurology consultants.**

### Treatment

Treatment can involve medication, mechanical endovascular interventions, and even surgery.

The only Food and Drug Administration (FDA)-approved medication for ischemic strokes is tPA, a medication that is used to dissolve the clots causing a stroke and improve blood flow to the affected part of the brain. If administered within three hours (up to 4.5 hours in certain eligible patients), tPA may help improve the chances of recovering from a stroke.

Polk County Fire Rescue also uses a Modified Rankin Score (mRS) to help identify patients eligible for comprehensive stroke care. The mRS determines the level of physical disability existing PRIOR to the stroke. The score ranges from 0–6, running from no symptoms to death.

More immediate access to treatment is available through a mobile stroke unit; the unit resembles an ambulance on the outside and on the inside is equipped to image the patient’s brain to detect the type of stroke and transmit patient symptoms to stroke neurologists at the hospital. An onboard medical team can initiate intravenous tPA to break up the clot.

The ability to initiate tPA therapy en route is a major advantage for patients experiencing an ischemic stroke—which account for 87 percent of all strokes—and offers patients better short- and long-term outcomes, Banerjee said.

“Door-to-needle time is essentially negative,” Banerjee said. “Treatment can be started as early as the ambulance ride to the hospital and neurosurgeons are waiting for the patient’s arrival.”

### Stroke Diagnostic Tool

The Academy’s Council of Standards evolved and approved the Stroke Dx Tool to better predict the outcome of stroke early and the type of EMS response required, not only to enable early hospital notification in the interest of prompt and effective patient care, but as a study methodology to measure and improve the outcomes of stroke patients. The protocol was released and used extensively in the U.K. for about a year prior to the tool’s release in North America as part of Protocol 28: Stroke (CVA)/Transient Ischemic Attack (TIA).

Essentially, the Stroke Dx Tool involves a quick, three-item diagnostic test—asking the patient to smile (to check for facial drooping), asking the patient to raise both arms above his/her head (to check for weakness or paralysis on one side of the body), and asking the patient to repeat “The early bird catches the worm” (to identify any speech abnormalities). The Stroke Dx Tool is considered COMPLETED if any of the three requests are accomplished. It is considered NOT COMPLETED when none of the requests are accomplished. All Diagnostic Questions should be asked, regardless of whether any previous request was completed. If the caller reports a pre-existing speech or motor
deficit during a test, the EMD should clarify if it is now worse than before.

Each question is scored, according to the patient’s response, with the distinction of stroke by the EMD based on identification of CLEAR, STRONG, PARTIAL, or No test evidence of stroke. The higher the patient’s score, the higher the likelihood of evidence of a stroke. The EMD should return to Protocol 28 after asking all of the Diagnostic Questions and make dispatch-level hospital stroke alert notification for patients identified with symptoms indicative of stroke.

While some agencies choose to limit response options by Determinant Level, i.e., sending the same response to all codes within a given level without specific regard to descriptor or suffix, many other agencies take advantage of the Protocol’s inherent response option design by utilizing the vast array of response options available, including the 12 determinant suffixes designed to pinpoint specific symptoms most predictive of stroke.

The Stroke Dx Tool has continued to evolve during the six years since its initial release, and the most recent version of the protocol system, MPDS v13.0, added the Stroke Dx Tool to Protocol 18: Headache to address the possibility of stroke according to symptoms described by the caller. The IAED also added several features to MPDS v13.0 to help in rapid stroke identification and treatment:

- Problem Suffixes to provide the Stroke Diagnostic Tool evaluation—CLEAR, STRONG, PARTIAL, or no test evidence—paired with the time frame of symptom onset
- STROKE Treatment Time Window to be established by local Medical Control
- New Rule regarding STROKE response urgency
- New Axiom regarding the use of the Stroke Diagnostic Tool
- STROKE Symptoms listed in the Additional Information section

Overall, Chief Complaint 28 accounts for about 1.4 to 2.0 percent of all MPDS cases. In comparison, Protocol 10: Chest Pain/Chest Discomfort (Non-Traumatic) accounts for about 9 percent, Protocol 6: Breathing Problems about 14 percent, and Protocol 26: Sick Person (Specific Diagnosis) about 10 percent.

**Team effort**

Jackson said stroke identification and care takes a combined effort.

“Florida is God’s waiting room,” she said. “We are primed for this type of thinking. How can we intervene earlier and how can we incorporate the process earlier in the 911 call? We are always looking for better ways to diagnose them and get them in the field at the right time and to the right facility.”

According to the Academy’s official statement regarding the Stroke Dx Tool, the Academy is committed to setting the DLS standard of care for stroke patients. In short, the potential minutes saved through earlier stroke predictability and subsequent hospital notification are well worth the seconds spent administering this simple diagnostic tool that also enables better outcome studies in the interest of patient care.

**Sources**

1. The Stroke Dx Tool enables EMDs to notify stroke centers early, decrease the time from symptoms onset to definitive treatment, and help hospitals prepare and improve patient outcomes.
   a. true
   b. false

2. An ischemic stroke is a medical emergency caused by:
   a. the blockage of oxygen-rich blood to the brain.
   b. sudden bleeding in the brain.
   c. profuse external bleeding from the blood vessels.
   d. a temporary blood clot.

3. A stroke to the left side of your brain affects:
   a. the left side of your body and commonly results in some degree of difficulty with judging spatial problems (distance, size, position).
   b. the right side of your body and commonly results in some degree of difficulty with speech and language.
   c. both sides of your body.
   d. the brain stem and commonly affects breathing, blood pressure, and heart rhythm.

4. The Los Angeles Motor Scale (LAMS):
   a. identifies the type of stroke the patient is having.
   b. tracks stroke-specific information for research.
   c. identifies the level of motor deficit in the patient having a stroke.
   d. coordinates the recovery process.

5. Tissue plasminogen activator (tPA) is a medication that is used to:
   a. dissolve the clots causing a stroke and improve blood flow to the affected part of the brain.
   b. reduce the risk of blood clots forming.
   c. lower the levels of lipids in the blood that can cause small, fatty patches in the blood vessels.
   d. cause the body to rid itself of excess fluids and sodium to reduce the heart’s workload.

6. Ischemic stroke accounts for what percentage of all strokes?
   a. 13 percent
   b. 35 percent
   c. 52 percent
   d. 87 percent

7. The Stroke Dx Tool test question asking patients to smile is done for which one of the following reasons?
   a. to check for facial drooping
   b. to check for paralysis on one side of the body
   c. to check for the patient’s level of understanding before going on to the next question
   d. to use as an indication of the patient’s present mood

8. If the caller reports a pre-existing speech or motor deficit during a test, the EMD should:
   a. clarify if it is now worse than before.
   b. stop the test immediately and send ALS response.
   c. ask the cause of the pre-existing speech or motor deficit (e.g., head trauma).
   d. modify the remaining test questions accordingly.

9. Problem Suffixes are one of several features in MPDS v13.0 that help in rapid stroke identification and treatment.
   a. true
   b. false

10. STROKE Treatment Time Window is established by:
    a. the MPDS.
    b. the affiliated stroke centers.
    c. local Medical Control.
    d. a universal consortium of stroke experts.

CDE Quiz Mail-In Answer Sheet
Answer the test questions on this form. (A photocopied answer sheet is acceptable, but your answers must be original.) WE WILL NOT PROCESS ALTERED SIZES.
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ANSWER SHEET
July/August 2016 Journal “The Sooner, The Better”
Please mark your answers in the appropriate box below.

1. ☐ A ☐ B
2. ☐ A ☐ B ☐ C ☐ D
3. ☐ A ☐ B ☐ C ☐ D
4. ☐ A ☐ B ☐ C ☐ D
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In 2010, worldwide prevalence of stroke was 33 million, with 16.9 million people experiencing a first stroke.

Stroke was the second-leading global cause of death behind heart disease, accounting for 11.13% of total deaths worldwide.

Stroke is the #5 cause of death in the United States, killing nearly 129,000 people a year.

Stroke kills someone in the U.S. about once every four minutes.

Black Americans have nearly twice the risk for a first-ever stroke than white Americans, and they have a much higher death rate from stroke.

Over the past 10 years, the death rate from stroke has fallen about 35 percent, and the number of stroke deaths has dropped about 21 percent.

Stroke causes 1 of every 20 deaths in the U.S.

Stroke is the leading preventable cause of disability.

What could be more important than protecting our children?

Announcing 9-1-1 COMMUNICATION CENTER BEST PRACTICES IN CASES OF MISSING CHILDREN

A missing child is a critically important and high profile event that can rip the fabric of your agency and community if not handled correctly. In terms of urgency, use of resources and potential impact on the community, a missing child requires a level of readiness akin to a disaster. This joint initiative of NAED, APCO, NENA, National AMBER Alert and the National Center For Missing & Exploited Children (NCMEC) was created to:

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CEO Overview Course

9-1-1 Communication Center Managers and Directors are invited to apply to attend the two-day overview course held at the National Headquarters of NCMEC in Alexandria, VA. Courses are conducted approximately every six weeks at no cost to participants.

For more information, visit www.missingkids.com/911 or email 911@ncmec.org
PAVED IN SUCCESS
Awards follow in the tracks of Hall Ambulance EMD

How do you beat a day at the state capitol honored by the legislature, revered by school children and adults visiting the capitol on the same day, and going home with an Olympic-looking metal worn on your neck for a photo taken with a state senator?

You continue trying to exceed personal expectations, said Lashika Britton, EMD, Hall Operational Communications Division (OCD), Hall Ambulance Service, Bakersfield, Calif.

“I’m extra careful because I don’t want to let anybody down,” said Britton, recipient of a Star of Life award sponsored through the California Ambulance Association, presented on March 7. “I am always trying to improve.”

It’s not like Britton could let anybody down, particularly as a calltaker/dispatcher for the private ambulance company that provides ambulance response to over 87 percent of Kern County. Britton practices the Medical Priority Dispatch System™ (MPDS®) Protocol on her own time, concentrating on Pre-Arrival Instructions, and actually sets compliance goals. She’s at 100 percent. She was the company’s Dispatcher of the Year in 2015.

“She’s a rock star in the profession,” said Mark Corum, Hall Ambulance Director of Media Services. “To achieve such a high performance level so early in her career is outstanding!”

The “rock star” downplays the attribution. She credits EMD Laura Swank, who provided hands-on training following EMD certification, and the other EMDs for their continued patience in answering all her questions. Working in an emergency call center also satisfies her desire to help people during times they need it the most.

“I was surprised [by the nomination],” she said. “This isn’t something I expected after being here for only two years. It made me very happy because I am proud of what I do.”

Britton answers calls and dispatches response. In 2015, she was the calltaker on 8,498 calls and the dispatcher on another 7,873 calls. She gave PAIs a total of 844 times during the same year. Her most memorable calls involve giving CPR PAIs for patients in cardiac arrest.

“My heart stops for a second each time because these are scary calls,” she said. “But just for a second. I have to stay calm for the patients to give the help they need before the ambulance arrives.”

Britton’s secret to staying calm is twofold: scripted MPDS Protocol and a “laid-back” personality in combination with taking a deep breath after a particularly stressful call before going on to the next. She said the award is also indicative of another path to success: Hall Ambulance philosophy.

“I wasn’t planning on going back to emergency communications after I graduated,” said Britton, who was a police dispatcher in the city for several months before going back for a bachelor’s degree in criminal justice. “But I had liked the work and saw there was an opening here. It’s a great place. They make sure we have everything we need to do the best we can.”

Britton was among a total of 50 EMS recipients from throughout the state presented with the Star of Life award in recognition of their overall outstanding performance and, also, lifesaving efforts in notable emergencies. The awards, given annually, included a gala celebration at the Embassy Suites in Sacramento, Calif., and, for the 14 members of Hall Ambulance receiving the award, a reception at the state capitol hosted by Sen. Jean Fuller (Bakersfield).

Following a full uniform procession to the Senate Republican Leader’s Office—through a crowd of admiring onlookers—Fuller presented Senate Resolutions honoring each of the Hall Ambulance recipients for their individual bravery and commitment to making their community safe.

“They are some of the best of the best working in our Golden State,” Fuller said.

Hall Ambulance’s OCD dispatches all ambulance requests for medical aid in Kern County and is an Academy medical Accredited Center of Excellence.
WHERE THERE’S PROTOCOL, THERE’S A WAY
Off-duty emergency dispatcher makes the call for ailing mom

Shannon Shuler

Mom and I had returned home after a day of shopping and unloaded our new treasures before settling down to watch a movie with our three little dogs. Twenty minutes later, she was unresponsive and making a weird noise that sounded like a snore, just not her usual one. I called out to her.

"Momma?"

When she did not answer, I called louder, “Momma!”

She still did not answer. I went to her and called her again, becoming frantic, “Momma?”

I patted her arm—nothing. I patted her harder—nothing. I shook her shoulder. I called my brother’s cell; it went to voicemail. I hung up and called back. He answered.

“Bubba, come home now. Something’s wrong with Momma.”

“What’s wrong?”

“I don’t know. She won’t answer me and just keeps making a weird noise. You need to come home.”

“Call 911 and get the medics started. I’m on my way.”

The person at the Orangeburg County Sheriff’s Office (S.C.) communication center who answered my 911 call was hard to hear, and the line kept breaking up. I made sure she had our address and told her the patient was a 57-year-old female who was unresponsive and not breathing, but the phone went dead before I could be sure she had heard all the patient information. If she heard me, she would get the medics on the way. I knew that was the full extent of the help I could expect from our 911 system.

Orangeburg County had not adopted, and has yet to adopt, the Medical Priority Dispatch System™ (MPDS®) with Pre-Arrival Instructions, which I use as a fire/EMS dispatcher for Charleston County.
Consolidated 911, S.C. Orangeburg County was hopefully sending help, but I could do more than just wait. Even if they did not have the information, mom raised two firefighters and had a whole department that looked to her as a mom. We would get her to a hospital one way or another.

I prepared for the arrival of anyone who could help. I opened the front door and turned on the outside light. I moved mom to the floor. I am CPR certified for my job and as a volunteer with Eutawville Fire, and I am a certified instructor through the Red Cross. I knew what to do, right? Not so much. I could not remember how many compressions to give at a time. I went from 20 (“No, that’s not enough”) to 40 (“No, that’s too many”) to 30 (“That’s not right either. Oh dang! How many is it?”). I settled on 30 compressions. If I had the number wrong, they were still helping.

I said over and over again, “No, Momma, you can’t leave me. We still need you.”

My brother, who is Eutawville Fire Chief Stephen Shuler, turned the 10-minute drive from his house to ours into less than five. He switched to the EMS channel and advised “CPR in progress,” before moving the furniture for an access point and came over to assist. He checked for a pulse and verified her breathing. Air was moving out but not in. Her lips were blue. Her eyes were unfocused and vacant. We began two-person CPR. I continued compressions, and he gave breaths.

Orangeburg Medic 5 arrived. One paramedic asked what happened, and the other set up the AED. I put the dogs in a secured room. They shocked her once with the AED and loaded her in the ambulance. I closed up the house and put out the dogs before going to the only hospital in Orangeburg County.

I walked into the emergency room waiting area shortly after midnight. Not even an hour had passed and it was already the longest night of my life.

My brother, who was at the hospital, told me, “They got her [breathing] back in the ambulance, but she started fighting them while they were trying to tube her.”

I took a seat in the waiting room. My brother sat beside me, and we discussed what the paramedics told him about mom. I could not stop the tears running down my face. They moved us to a private “family room” where I watched my tough-as-nails brother cry silently, and I pretended not to notice except to move the tissue box between us. Other family members arrived. The hours in the room were interminable and without any updates.

At 6 a.m., more than five hours after I had arrived at the hospital, we were allowed to see her. She was intubated, heavily sedated, and restrained since she had tried to fight the ER staff, also. An hour later, she was moved to an ICU suite. At noon, my brother and I went home.

I returned to the hospital later that night and stayed for the next two weeks. I drifted between not knowing if I would be planning a funeral to coordinating visits. My brother came when he got off work; his boss was extremely understanding. He stayed with her on the weekends.

At each new move and with each new nurse, I would hear them talking: “Is that the one?” or “She’s the one that kept her alive.” It took me a long time to realize that it was me they were talking about, referring to the CPR that I had initiated before help arrived. The doctors and paramedics told my brother that the ending would have been tragic if CPR had been delayed any longer.

Mom does not remember anything. She has no recollection of shopping or watching a movie. My brother and I did tell her the full story. Her favorite part is about the dogs. The puppies, DJ and Liam, were on either side of her on the floor during CPR. When I gave her the first rescue breath, DJ climbed up and laid on mom’s stomach. With every compression, he stretched his paws to my hands. Liam licked her face twice, copying (I think) the kisses he thought I was giving at each CPR breath. Their mother, Zoe, led the paramedics to us.

Doctors expect a complete recovery, though they are still unable to determine the cause of the event. This was her second silent heart attack. We never knew about the first. Vigilance will be key in making sure she continues to get the timely treatment she will need in case it happens again.

I dispatch for a large consolidated 911 center, and I am also an office manager and instructor for a small fire department. I tell responders where to go, how to properly fill out reports, and keep their training up-to-date. I do not run calls. My job is getting them to the call and making sure they have the information and training they need. I never envied their role. Now I know why. I could not do it and certainly not in a small town.

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