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send the right information. at the right time. to the right people—every call.
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Combine the challenges and the excitement of a paramedic with the rush and freedom of riding a motorcycle and what do you have? Well, a pretty sweet gig.

26 | Room With A View
Imagine that communications isn’t an afterthought but the centerpiece of a multi-million-dollar public safety complex that is both a model of functionality and part architectural wonder.
**Contributors**

**SHAWN MESSINGER**
Shawn is a police consultant and Emergency Police Dispatch instructor for Priority Dispatch Corp. He is a former chief deputy for the Okanogan County Sheriff’s Office where he was the director of a combined 9-1-1 communications center. During this time he oversaw the deployment of a new CAD and countywide RMS system, a VoIP 911 phone system, and the deployments of ProQA in EMD and EPD. Shawn was also commander of a multi-jurisdictional SWAT team.

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**KEVIN PAGENKOP**
Kevin provides both EMS and fire quality assurance and training for American Medical Response’s LIFECOM EMS & Fire Communications Center in Modesto, Calif. As a leading member of their QIU, he is tasked with curriculum development, quality management, and maintenance of their ACE.

9 | STANDARDS OF QUALITY

**BRETT PATTERSON**
Brett is Academics & Standards associate and Research Council chair for the IAED. His role involves training, curriculum, protocol standards, quality improvement, and research. He is a member of the NAED College of Fellows, Standards Council, and Rules Committee. Brett began a career in EMS communications in 1987. Prior to accepting a position with the IAED, he spent 10 years working in Pinellas County, Fla.

18 | FAQ

**RYAN FORD**
Ryan is an EMD certified 9-1-1 dispatcher and radio operator for the Pinellas County Emergency Communications Center in Clearwater, Fla. He is also a graduate student at the University of South Florida’s Public Administration program. Originally from Fleetwood, Pa., his experience in emergency communications began with the American Red Cross in Philadelphia.

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**RONALD RICHARD**
Ronald from Cambridge, Mass., has been a fire dispatcher for over 27 years. He is an active regional EFD instructor and serves on the NAED Fire Council of Standards.

30 | FIRE CDE

**KATE DERNOCOEUR**
Kate wrote frequently for the EMD industry before moving on from a 25-year career as an emergency medical services journalist, earning her MFA (nonfiction) from Western Michigan University in 2010. She co-authored Principles of Emergency Medical Dispatch and her brief stint as a Town of Vail dispatcher left her with a profound respect for good dispatchers.

40 | UNFORGETTABLE
A survey wasn’t necessary to satisfy a long-held belief among The Journal’s editorial staff about dispatchers. They are a modest bunch, almost to a fault. The proof came as a result of an error—and I’d admit mine—in a story about two girls winning an award for their timely actions to help their grandpa. Grandpa had fallen down in the house and after the girls went to check on the noise, they heard, as they did as grandma had taught them. They called 9-1-1. Grandpa was transported to the hospital and the girls worked on arts and crafts with a responding officer while waiting for their mom and grandma to arrive.

The girls received an award from 9-1-1 for Kids during the Closing Luncheon of Navigator. The dispatcher answering the call was also welcomed on stage and together they—the girls, grandpa, dispatcher, and award sponsors—posed for a photo later published along with the story in the magazine. The picture focuses on the two girls.

When writing the story, I accidentally attributed the call to an agency that neither answered the call nor sent response. The truth of the error arrived over my phone several days after the magazine was mailed. I was out of the office so the caller left a message asking that I clarify that it wasn’t the dispatcher—was very cordial but not the cold kind of cordial reminiscent of my years in newspaper reporting. Make a mistake in a daily and you’ll likely be holding the phone away from your ear while the school board member, mayor, council member, or other presumably slighted individual lets loose on high volume.

Not so with this caller. She was very polite and, true to form, asked us not to print her name to keep the focus on the dispatcher. During a subsequent phone call, she gave me the name of the dispatcher and I asked her if the dispatcher—Heather Baker—would be interested in setting the record straight. I asked her. I was not told. The story resulting from our interview is in the Your Space section of this edition.

Heather was happy to tell her side of the story, meaning the plight of the two girls as seen from her end of the line. It wasn’t much different from how we described the incident, except for the part about which agency handled the call. She wasn’t upset about the mistake, and she wasn’t hung up on the “me” omission (her name being left out in the original article). In fact, she didn’t seem to care about that stuff.

“It’s nice when 9-1-1 gets recognized for the good things,” she said. “And it’s really nice when it’s your center that receives the attention.” Then she laughed.

“By the way, I wasn’t completely left out of the story,” she said. “That arm behind the two girls in the photo—it’s mine.” And much to my chapin, the hand at the end of the arm is holding the certificate she received from the same organization; her name appears in bold type.
Oh! Marvelous Me
Boss’ Day isn’t about employee praise

Scott Freitag, NAED President

Quite honestly, Boss’ Day on Oct. 16 has always been a bit confusing to me. It’s a day dedicated to the one person an employee might rather avoid on a regular basis, depending on the situation. Maybe the day’s project won’t come in on deadline. Maybe spending lunch together is not the employee’s idea of a good time. Maybe the boss isn’t so interested in stepping out with subordinates.

Plain and simple, Boss’ Day can be an imposition for employees and the boss on an otherwise pleasant October day. The safest option might mean following avoidance tactics: keep head down, eyes averted, and pretend the day doesn’t exist, at least on your calendar. I think a lot of it has to do with the day’s expectations. What is the message? Does a boss expect praise? Should staff be obligated to give it? Is this one way to win favor with the person in the presiding position?

How did this happen?
A State Farm Insurance employee in Deerfield, Ill., registered the holiday in 1958 with the United States Chamber of Commerce. Patricia Bays Haroski wanted a day to show appreciation to her boss and other bosses, anticipating that setting aside a day was a good thing to do. It obviously hit a chord since the day has been around for more than half a century.

But what was her true motive? Maybe, she was the boss. Maybe, she was self-employed. Maybe, she wanted to create a team? In other words, was her point to thank the boss for keeping us employed, or are we thanking the boss for putting together a team that makes it worthwhile to spend the day away from home?

I believe it was about teamwork. From what I’ve learned, a boss looks for the same qualities in his employees as the employees want in a boss. It’s a reciprocal deal. Most might say they like their boss and the boss his employees for reasons such as integrity, clarity, honesty, sticking up for a fellow worker, and passion about what they’re doing. While skills are certainly important, the fit keeps the ship afloat.

A good boss sets the example and builds confidence levels. Nobody is better than the next guy; we all have something valuable to offer. Good employees look to the boss for leadership and don’t undermine motives and direction; after all, that’s the reason that person is boss. They’re not trying to climb over one another to win favor and the prize in their eye isn’t who gets the job once the boss retires.

The qualities may sound simple enough unless you take human nature into play. Idealism isn’t something we can always put into practice. Nothing is easier to fail than trying to achieve perfection.

Lesson from the master
I like the description Chicago Tribune business writer Mary Schmich provided in her article about good bosses (Oct. 15, 2010), which can be applied to good employees. [The boss] understands that power is fleeting and borrowed, a fancy suit on loan. He doesn’t forget that his real power comes not from the realms above him but from the rank-and-file, and the rank-and-file trust his leadership. A good boss shares a view his employees embrace and work together to achieve.

The “he” is used generically.

View from the top
Schmich’s take reminds me of the many lessons I learned as a kid from a favorite author, Dr. Seuss. While some of his work was for the sake of having fun, many of the stories contain messages that can hit us right over the head. Remember Yertle the Turtle and Other Stories? Though it contains three short stories, it is mostly known for its first story, “Yertle the Turtle,” in which Yertle (Oh! Marvelous Me), king of the pond, stacks his subjects to build a throne that reaches higher than the moon. The burp of the bottom turtle forces Yertle to fall into the mud, ending his rule.

I’ve always looked at the book as a reminder in keeping perspective. No one is better than the next guy, no matter where they sit in the hierarchy, which doesn’t mean we can exist without our leaders. It does mean, however, that we can have lunch with our boss on Oct. 16 without feeling it’s a move to stack the deck in anyone’s favor. No flattery necessary, although don’t expect the boss to pick up the check.
Who Comes First?
Order of resuscitation when mom and fetus suffer cardiac arrest

Jeff Clawson, M.D.

Dr. Clawson:
We have all but completed a review of most of our processes and policies. Within a previous draft the following was included:

In the event that both mother and child suffer cardiac arrest prior to the arrival of the ambulance crew, Pre-Arrival Instructions (PAIs) must be relayed in the first instance to the newborn baby before the mother.

Could you point me in the direction of any evidence base for this, if it remains a current recommendation? I have been through Chapter 8 of Principles of EMD and was not able to locate this directive. It may have been a locally-defined decision.

Many thanks,
Helen Rees
Senior Nurse Practice & Service Development
NHS Direct Wales
Welsh Ambulance Services NHS Trust

Helen:
I have forwarded your question to Brett Patterson, IAED Academies and Standards associate and Research Council chair, for his clarification.

Dr. Clawson

Helen:
I have done a few ethical searches on this topic but there isn’t much available since healthcare providers generally have enough staff to attempt resuscitation on both patients. Most of the ethical literature is about when to take the baby (crash C-section) or when to discontinue life support for the mother.

However, in my opinion, one point is clear—there are too many potential factors to make a blanket statement, i.e., gestation of fetus, health of fetus, cause of maternal arrest, time since maternal arrest, time since delivery, etc. Different situations warrant different approaches. For example, traumatic arrest of the mother associated with head trauma and delivery of full-term fetus might suggest working the baby, while an unknown cause of maternal arrest, with delivery of premature fetus with known potentially life-threatening defects, might warrant resuscitation of the mother.

My suggestion is to develop an internal policy that considers various scenarios, but I am still going to defer to Dr. Clawson on this one.

Brett A. Patterson
IAED Academics & Standards Associate Chair, Council of Research

Helen:
I think Brett has covered the waterfront well on this by listing the variables that might make either the mother or the baby the best candidate for resuscitation. Another aspect to throw in, and there are many, is if the mother bled out from a uterine tear, etc., and the baby is suffering a respiratory-cause arrest—in this case the baby would come first, as the mother would likely be irretrievable outside of a hospital.

I don’t recall us (in Principles of EMD textbook or at the Academy) ever taking a position on this. This center must have made this one up locally. For the father, who could likely be the caller, this would be unbelievably hard to witness, much less handle. Really a “Bad Day at Blackrock” as we used to say.

Onward through the ethical fog…

Brett:
Wow, what a nightmare scenario to even consider. I can’t really think of anything you left out. The problem depends on what caused mom to arrest and the gestational age/condition of the baby. That would determine who you resuscitated first. Is the baby a 30-week preemie that doesn’t have a high chance in the field with a mom who is having a SVT arrhythmia-type of issue and just needs to be converted? Did mom get shot in the chest and spontaneously delivered a healthy baby at 39 weeks? We had a baby in our unit whose parents got in a car accident on the way to the hospital. Mom didn’t put on her seatbelt because it was too annoying while she was laboring. Mom was mostly brain dead on arrival and the baby did fine after just a few days in intensive care. I just don’t know how to qualify this in an e-mail. This is definitely a “sit around the table with the high risk team and talk about it” issue.

Sorry not to be more help on this one.
Robin Ayers
Chair, High Risk Delivery Standards Committee

THE JOURNAL | September/October 2012
In my travels around the United States teaching Emergency Police Dispatch™ (EPD™) classes it never fails to amaze me how so many telecommunications professionals feel that they have no influence on the environment in which they work. Either directly with comments or indirectly by their attitudes, they take the position of no control. They believe that nothing they do or say will change the daily routine in the communications center or their profession as a whole.

Rather than addressing an issue, dispatchers toss it aside, suggesting: “that’s just how things are here,” or “it’s always been this way,” or my least favorite, “I’m just a dispatcher.”

The reluctance to take action, or present ideas, not only keeps people from engaging in their jobs, but it also robs the agency of potentially valuable contributions. Sometimes, it takes someone who is not at the top to recognize an opportunity or a better way of doing things. The view from where dispatchers sit provides a perspective unique to management’s position. Good ideas shouldn’t be left to fade into oblivion.

Take this case, for example.

During a recent EPD certification course we discussed the lack of a policy for testing the TTY system, which became an issue when an individual with a hearing impairment called 9-1-1 using a TTY machine. No one at the center during the time of the call could remember how the system worked and the instructions had been long misplaced; the most senior calltaker on shift couldn’t remember a single other TTY call in the past 10 years. Dispatcher professionals, as we know, are resourceful. They like to help people. The dispatchers on duty worked as a team, pooled their knowledge, and figured out how to help the caller.

The problem had been solved, at least for the moment.

I asked if they had since put a TTY policy in place and whether they had updated others at the center about how it worked. Their answer was “no” and they made comments to the effect that they did not believe the “bosses” would get around to it.

I suggested they try “leading from the bottom,” which is a way nonsupervisory people could foster positive change within the communications center. I asked if anyone had tested the TTY system despite the lack of a policy and if policy for testing and use had been drafted for a supervisor to review. The answer to both questions was “no.”

I encouraged them to “lead from the bottom” and to test the TTY system as a general part of their work routine and to develop a sample policy. My suggestion was certainly not in support of insubordination or a disregard for the chain of command, but I do believe that waiting for “someone” to make a difference is the same as waiting for “no one.”

Consider the importance of action in this case. Dispatchers offer a public service that makes a difference in the communities they serve. If the TTY fails to work, the public service falls short of the agency’s honored commitment and the community’s expectations.

As the iconoclastic Donald H. McGannon said—“Leadership is an action, not a position,”—it’s up to the individual to make the difference. Leadership can come from any level in an organization, even the bottom.

How can you lead from the bottom?
Get What You Can
Continuing education is something to celebrate

Kevin Pagenkop, ENP

During a recent Internet surfing session, a newspaper article from Kansas caught my eye. The featured story involved a Boy Scout who had recently received the prestige of successfully completing the requirements to attain the rank of Eagle Scout, the Boy Scouts of America’s highest advancement rank. Only 5% of Boy Scouts ever complete the requirements to become Eagle Scouts, but of those who accomplish this achievement, a large percentage of them continue their service into adulthood as astronauts, career military officers, or politicians. What made this specific story so appealing was not just that the young man featured, Curry McWilliams, became an Eagle Scout, but it was the manner in which he completed the difficult requirements.

For those not familiar with the Boy Scouts of America, education is accrued through the receipt of Merit Badges. The subjects are learned through classes, self-study, or apprenticeship instruction. Once the applicable skills are successfully demonstrated or the required tasks completed (some of which take months to complete), the Scout is presented with a small, circular patch that can then be sewn to a sash worn with his uniform. While the number of patches worn is certainly a point of pride, these patches are a physical representation of the knowledge gained and correlate to the number of years an individual has been a Scout. Merit Badges are offered for a variety of subjects and are not necessarily specific to camping or the outdoors (subjects most associated with the Boy Scouts of America). There are badges for business, architecture, computers, electronics, graphic arts, welding, and chemistry, to name a few.

To rise to the rank of Eagle Scout requires the successful completion of 21 Merit Badges. Curry McWilliams’ amazing accomplishment was that after he had earned the required 21 badges, he continued his self-education and did not stop taking classes and learning new subjects until he had successfully completed the requirements for every Merit Badge available—132 in total. That’s more than six times what was required.

After reading this article, I was left with a couple of thoughts: What level of service could we provide our callers if we applied more than six times the effort required? What if we just marginally exceeded the minimum requirements of our jobs? What if “good” could be replaced by “great”?

Certification and accrual of continuing education unit hours is often regarded as nothing more than the mandatory application of effort simply to maintain the means to receive a paycheck. This is often more prevalent the further we advance in our careers and begin to get cynical, frustrated, or burned-out. What once was new and exciting becomes routine or boring. How does that then relate to the quality of service we are providing? Do we find ourselves simply going through the motions and working to meet the minimum requirements or standards?

Continuing education should be viewed like Merit Badges and not simply a required amount of training hours that we procrastinate accruing. There are a variety of topics and venues that range from improving existing skills, gaining new skills, or simply general interest or entertainment. Taking the time and making the effort to self-improve should be celebrated. We may not sew our course certificates to our uniforms but we should work to create a culture where education is valued. Whether or not the completion of additional education is undertaken toward career advancement or simply as an opportunity to improve the quality of service provided, we should encourage one another to continually apply ourselves and work toward mastering our trades. Don’t we expect the highest level of professionalism from others? We need to hold everyone to that same ideal.

Curry McWilliams is not an emergency telecommunicator and comparing the difficult jobs we do each shift to a Boy Scout may strike some as insulting, but this young man completed the training and earned Merit Badges for Communications, Emergency Preparedness, Fire Safety, First Aid, Lifesaving, Medicine, Public Health, Radio, Safety, and Traffic Safety. In fact, examining the Boy Scouts of America in totality, the most often earned Merit Badge since 1910 has been First Aid, with almost 7 million Scouts completing the requirements to wear the badge. Perhaps these similarities are proof that when individuals accept the responsibility to provide service to their community, whether it’s as a Boy Scout or as a Public Safety Dispatcher, “good” shouldn’t be “good enough.”

*Scout grabs elite goal: all 132 merit badges*, Kansas City Star, June 17, 2012, Dawn Bormann
The Boys Scouts of America on line, http://scouting.org
The Boy Scout Handbook, 12th Edition, the Boy Scouts of America
Two weeks that will change your life...

...and you can leave your hiking shoes at home.

The Communications Center Manager Course
Online session begins: August 27, 2012
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“The CCM course is much more than a constructive learning experience for communications center professionals... it is a reaffirmation of the value of the individual as a whole and the priceless gift of an entire new network of colleagues who have now become part of my extended family.”

—Sherri Stigler, Waukesha County Communications, Waukesha, WI.

Online registration for the 2012 course will begin January 1, 2012. Go to www.emergencydispatch.org or call Sharon Conroy at (816) 431-2600 for more course curriculum and registration information.
**Fundraisers contribute to paramedic’s care following tragic assault**

Nearly 18 months ago, Paramedic Bryan Stow made headlines when a violent assault put him on the other side of emergency assistance. The then 42-year-old EMT with Santa Cruz AMR was leaving Dodger Stadium in Los Angeles, Calif., following the March 31, 2011, opening game against the San Francisco Giants when sucker-punched to the ground by two fans from the opposing team. Hospitalized in critical condition and suffering a traumatic brain injury, he is now making progress although it is expected Stow will need lifetime assistance.

The attack and Stow's rehabilitation continues to draw national attention. In June 2012, there was enough evidence presented in court to bring two suspects to trial and fundraisers have surpassed $500,000 in donations to a college trust fund for Stow's two children and to pay for his ongoing care.

AMR in California has raised thousands of dollars during several large-scale events held over the past year, including a barbecue Santa Cruz AMR hosted one week after the attack that brought in $127,000. AMR communications centers have pitched in, collecting donations at fundraisers and selling Bryan Stow Bracelets made possible by the paramedics in Santa Clara County.

“The dispatchers the bracelets in copious amounts, spreading support for Bryan across the Bay Area and into the valley,” said AMR Client Services Manager Jennifer Ceynowa. “The fans are great and many know right away where the money is going.”

Other events and private donations through several sponsoring organizations and a website dedicated to Stow continue to bring in funds for AMR’s field training officer. The California Emergency Nurses Association (ENA) named its scholarship after Stow to provide a paramedic with an educational opportunity in nursing.

Stow had been a paramedic going on six years when the attack occurred.

**NENA conference focuses on future of 9-1-1 system**

From the National Emergency Number Association (NENA)

More than 750,000 calls are placed to 9-1-1 emergency services across the United States and Canada every day, and thousands of lives are impacted. But many local call centers are stretched to the limit by advances and role-playing using 9-1-1 simulators. When they turn age 18, they can apply for dispatch programs at centers anywhere in the state.

Blanke predicts a bright future for the certified students.

“Telecommunication is a growing field with lots of opportunities, and the program gives them a good starting point for a career in law enforcement and public safety,” he said. “They can get a job right out of high school and since it’s shift work, go to college at the same time if that’s what they want to do.”

Since 1990, New Jersey public safety telecommunicators are required to complete a 40-hour basic communications course for certification through the state’s Office of Emergency Telecommunications Services. Telecommunicators responsible for EMD must also complete an eight-hour CPR certification and a 32-hour EMD course. All telecommunicators in secondary PSAPs taking calls or dispatching EMS are required to maintain EMD and CPR certifications.
in technology, heavy call volume, human resource and training issues, and inconsistent or inadequate funding.

To address these and related issues, nearly 2,000 9-1-1 professionals and government leaders gathered June 9-14 at NENA 2012, the National Emergency Number Association’s Annual Conference & Expo in Long Beach, Calif. The conference featured general sessions on issues facing 9-1-1, education and training sessions, networking opportunities, and an exhibit hall showcasing products and services.

A California Issues Forum focused on issues such as the Next Generation and Enhanced 9-1-1 projects being carried out in many California counties; funding requirements; progress in reducing wait times; and rural 9-1-1 challenges.

“The nation’s 9-1-1 call centers provide lifesaving service to all Americans,” said NENA CEO Brian Fontes. “But they’re in need of more help. Our annual conference gives 9-1-1 decision makers and industry leaders a chance to share information and tackle challenges ranging from next-generation technologies, to enhanced training for call takers, to transparency and accountability in 9-1-1 funding.”

HeartSafe designation puts communities in survival mode

Neighborhood Watch programs around the country might keep your area safer from crime but what about a program in Maine that could help members of your community survive following a heart attack or stroke?

And all you have to do is save up heartbeats to qualify.

The program, called HeartSafe Community, recognizes Emergency Medical Services throughout Maine that help improve outcomes through community education, availability of CPR training and Automatic External Defibrillators (AEDs), pre-arrival emergency medical instructions provided by dispatchers, and advanced cardiac monitoring capabilities. Points (heartbeats) are given based on several criteria (CPR training, AED availability, ALS dispatch); the population size divided into six categories dictates the number of heartbeats required for the designation.

For example, service zone Category I with populations of up to 2,500 residents earn five heartbeats for each CPR training session and once reaching 40 heartbeats (equivalent to 90 sessions) qualify for the HeartSafe designation; service zone Category VI populations of up to 2,500 residents earn five heartbeats for the designation. The entire first phase, which will provide coverage in central Maryland and the Interstate 95 corridor, an area that covers one-third of the state’s population and two-thirds of the state’s critical infrastructure, will be fully operational by the end of 2012. The second phase will add Eastern Shore agencies, and the entire project is expected to be complete in 2016.

The Kent County Office of Emergency Services uses the Police, Fire, and Medical Protocols, or NAED™ EMDS system has been used in Maine PSAPs since 2007, and the state is now looking at a comprehensive implementation plan to include EFMD and EPD systems. Telecommunicators in every PSAP have been trained in MPDS, and most have recertified at least once.

Project allows emergency staff statewide to communicate quickly

A new $349 million statewide interoperable police radio system, called Maryland FIRST, will allow government agencies from police to public works to communicate during large-scale emergencies like terrorist attacks and natural disasters, and help in situations like long-distance police chases, when officers previously might have lost radio contact, according to an article posted on Maryland community news online.

The Maryland Transportation Authority, Maryland State Police, and Kent County Office of Emergency Services are connected to Maryland FIRST now. The entire first phase, which will provide coverage in central Maryland and the Interstate

Emergency alert system provides another reason to use a cell phone

Starting June 18, the nation’s emergency alert system started sending automatic alerts via cell phone about life-threatening weather, national emergencies, and child abductions.

The service is free and no sign up is necessary; the system operates via cell tower and instantly reaches all phones within a tower's reception area. The phone, which must be turned on to receive the alert, sounds the alarm and vibrates, even if it’s been turned to mute. Users can opt out of the Amber Alerts and weather messages, but not national emergencies.

The messages sent by the alert are limited to 90 characters and describe the emergency and suggest action.

Depending on reception, the cell phone automatically accounts for a change in the user's location. If the user is driving and enters a county with an active weather warning, the phone sounds the alarm, even if the warning was issued before the driver crossed the county line.

Of the 600 cell phone carriers in the nation, about 100—including all major carriers—have told the federal government they will broadcast the alert. The alerts are being generated through a partnership of FEMA, the Federal Communications Commission, the National Weather Service and cell phone carriers. According to officials, the alert does not replace traditional sources for emergency information, but is intended only to act as a bell ringer.
The system is years in the making and there are limitations:
- Transmission of the alert depends on the quality of the cell tower signal; areas with poor reception could curtail the message
- Alerts are done by county; some people will receive warnings about threats that aren't imminent for them

Participation is voluntary by cell phone carriers
- The alert won’t interrupt phone calls

Book mobile could take exit to emergency route

A move that probably upset rural bookworms in the Clinton-Essex-Franklin counties (New York) Library System might just benefit in a way that makes up for the loss of the recently shelved bookmobile.

The regional library system recently shelved the book mobile owing to hefty operational costs and instead of retiring the vehicle, offered it to the same three counties for use as a mobile communications and command center, installing multiple-agency radios, a conference table, and a satellite phone. It might be possible to install existing surplus

STRESSED OUT

New study links 9-1-1 dispatchers to post-traumatic stress disorders

A study by researchers at Northern Illinois University (NIU) suggests that the on-the-job, indirect exposure to trauma puts dispatchers at risk for developing symptoms of post-traumatic stress disorder (PTSD). In other words, it doesn't take being there to feel the pressure.

“The NIU study suggests that one does not need to be physically present during a traumatic event, or to even know the victim of a trauma, in order for the event to cause significant mental health challenges,” said NIU Psychology Professor Michelle Lilly, according to a NIU Today news release. Lilly said the findings published in the Journal of Traumatic Stress could contribute to enhanced prevention and intervention efforts.

Lilly conducted the study with her former student, NIU research associate Heather Pierce, who worked for more than a decade as an emergency dispatcher in Chicago's western suburbs. For their study, the researchers analyzed the responses of 171 on-the-job emergency dispatchers from 24 states. The majority of the sample was female and Caucasian, with an average age of 38 and more than 11 years of service.

The dispatchers participating in the survey were asked about the types of potentially traumatic calls they handle and the amount of emotional distress they experienced. They were also asked to rate the types of calls that caused the most distress and to remember the worst call they had dealt with during their careers.

The most commonly identified worst calls were the unexpected injury or death of a child (16.4% of respondents), followed by suicidal callers (12.9%), shootings involving officers (9.9%), and calls involving the unexpected death of an adult (9.9%).

Survey results showed that dispatchers experience high levels of "peritraumatic distress," 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 “moderate relationship” was found between the dispatchers’ emotional response and PTSD symptom severity, with 3.5% of the survey participants reporting symptoms severe enough to qualify for a diagnosis of PTSD.

An aging population is working in favor of careers in dispatch. According to the 2012/2013 Occupational Outlook Handbook, published by the U.S. Bureau of Labor Statistics, job openings for police, fire, and ambulance dispatch are expected to grow by 12% from 2010 to 2020 partly because of an older population “likely to mean more emergency calls; and, therefore, a need for more dispatchers.”

In rough numbers: Jobs 2010: 100,100; Employment Change 2010-2020: 11,700. In 2010, the median pay was $35,370/year or about $17/hour.

Occupations also looking good in the decade to come include registered nurses (711,900 new jobs projected), retail sales (706,800 new jobs), postsecondary teachers (305,700 new jobs), cashiers (250,200 new jobs), and receptionists (248,500 new jobs). Those on the decline include desktop publishers (15% decline), floral designers (9% decline), and air traffic controllers and food service managers (3% decline). The highest paying jobs (more than $150,000/year) include oral and maxillofacial surgeons, orthodontists, dentists, and chief executives.

**Future looks bright**

The donation of four portable cardiac monitors by Gold Cross Ambulance in Salt Lake City, Utah, to Dixie State College’s (St. George, Utah) Emergency Medical Services program is the second significant donation in as many years that Gold Cross Ambulance has made to DSC’s EMS program. Last spring, Gold Cross donated an ambulance to the program in an effort to assist students in gaining practical experience in giving pre-hospital care to patients while inside the back of a moving ambulance.

Gold Cross Ambulance President Mike Moffitt noted the importance of students learning EMS skills with the latest equipment, which will result in students receiving the most comprehensive training needed to make a seamless transition into the paramedic and EMT professions.

“As an ambulance service provider, we end up employing the paramedics and EMTs that are trained (at Dixie State), so it is in our best interest to make sure that they have the proper equipment to train with,” Moffitt said. “We look at this as a partnership with Dixie State College, and as they identify needs that they may have for equipment and other devices, we will keep our eyes out for what we have in our system that we can retire and give a second life to.”

**Ambulance service donates cardiac monitors to college EMS program**

The donation of four portable cardiac monitors by Gold Cross Ambulance in Salt Lake City, Utah, to Dixie State College’s (St. George, Utah) Emergency Medical Services program is the second significant donation in as many years that Gold Cross Ambulance has made to DSC’s EMS program. Last spring, Gold Cross donated an ambulance to the program in an effort to assist students in gaining practical experience in giving pre-hospital care to patients while inside the back of a moving ambulance.

Gold Cross Ambulance President Mike Moffitt noted the importance of students learning EMS skills with the latest equipment, which will result in students receiving the most comprehensive training needed to make a seamless transition into the paramedic and EMT professions.

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**CPR/AED awareness contests inspire action**

National CPR/AED Awareness Week—June 1 through June 7—may have passed you by this year, but the contests sponsored by the Sudden Cardiac Arrest (SCA) Foundation might leave you with enough inspiration to enter next year’s event.

The first contest, the People Saving People Awards, honored “ordinary” people who helped save the lives of SCA victims to increase awareness about the bystander assistance in sudden cardiac emergencies. Winning entries are posted on the SCA survivor story page and the first place winner received an AED.

For the second contest, the SCA Foundation partnered with the Citizen CPR Foundation (CCPRF) to choose the top video helping to raise awareness about SCA, CPR, and AEDs. A panel of reviewers from both organizations evaluated videos based on creativity, production quality, and overall impact. After the conference, the top videos were posted on the CCPRF website, the SCA website, the SCA Foundation Facebook page, and the YouTube Channel. An AED was presented to the first place winner.

The video contest is held twice a year.

According to the American Heart Association (AHA), less than 8% of the people who suffer sudden cardiac arrest outside of a hospital survive. For every minute that defibrillation is delayed, the survival rate drops 6–10%.

**Scammers impersonate 9-1-1 dispatchers**

In the world of 9-1-1 and related phone scams, crooks and prison inmates are targeting homes and leaving residents with the bill. Crooks are targeting homes for possible burglary by posing as 9-1-1 dispatchers responding to emergency calls. According to the way the scam works, residents receive calls in the middle of the night from a supposed 9-1-1 center asking about the numerous calls placed from the home. Once everything is reported to be “OK,” the scammer moves on to a list of questions, such as: How many people live in your home? Are you home alone now? Is there a security system? If so, what company services it?

Apparently, the scammer hopes that people awakened this way will be too groggy to realize that they haven’t called 9-1-1.

The second in a seems-to-be-growing series of “slammer scammer” telephone schemes hinges on fraudulent activation of a common feature on home telephone lines, call forwarding. In previous “slammer scammer” telephone schemes, inmates called people at home and feigned an emergency to get them to push *72 or other codes to turn on call forwarding to a buddy’s number. The new ploy goes unnoticed until the phone bill arrives.

Investigators believe that the second slammer scam starts with an accomplice outside the prison searching phone directories for multiple numbers belonging to the same person. The accomplice then calls these numbers, seeking fax or computer tones.

The accomplice activates the number’s call-forwarding feature to direct all calls to a third number. The call is automatically forwarded to the third number, where the buddy answers and accepts the call. They talk as long as they want with the bill going to the registered line holder. In South Florida, victims have included a federal judge and an architect who designed one of the prisons from which the scam was originating.
The Dutch emergency phone number system (112) will be looking and sounding different in the years to come.

Fourteen of the Netherlands’ 24 112 emergency control centers will disappear in the next five years as the result of a 50-million-euro budget cut and will coincide with the 10 regional forces under the Regional Homeland Security Organization. A majority of those in operation following the consolidation will be answering emergency calls using the Advanced Medical Priority Dispatch System™ (AMPDS™).

The Joint Dispatch Center of the Hollands-Midden region in Leiden was the first public safety region to go live with the AMPDS in May 2011. The center serves 780,000 people and receives an average of 125 urgent calls a day for medical help.

Jan de Nooij, M.D., medical director, Regionale Ambulance service and Dispatch Center Hollands-Midden since 2000, said the AMPDS was an essential part of the public safety region’s journey to become a better dispatch center.

Dr. Nooij was the first medical director on mainland Europe to become a certified EMD and ED-Q™ and is responsible for introducing AMPDS in The Netherlands Society of Medical Directors Ambulance care and the Dutch Healthcare System.

But like everything else, he said, implementation takes advocacy, honesty, and the ability to work well within the culture. For example, no one in the Netherlands accepts facts hands down.

“We are a consensus society,” he said. “Nothing happens without complete discussion of the facts presented.”

Dr. Nooij, who has served on the International Academies’ College of Fellows since 2009, anticipates a day when all calls in the Netherlands will be triaged using AMPDS—a prediction that isn’t too far off considering the six other regions that have followed the lead of Hollands-Midden: Amsterdam-Amstelland, Rotterdam-Rijnmond, Zeeland, Noord-Holland Noord, Brabant Noord, and Midden West Brabant.

“EMS is the practice of medicine and EMD is integral to its success,” he said. “It’s a matter of best practices.”

Justice Minister Ivo Opstelten said consolidation would actually improve quality.

The justice ministry intends to create a single emergency control organization to ensure that everybody immediately knows who is responsible for the coordination of emergency services.

This should lead to improved cooperation and a faster delivery of the right kind of assistance at the right location.

Digital age pushes change to South Australia rural address system

For dispatchers at SA Ambulance Service’s emergency operations center, it’s not only what’s in a property number but, also, how the number will make emergency responses more efficient and the patient easier to find. Why? Many rural properties in South Australia are located on unnamed roads and without numbers. For time eternal, rural property
owners have relied on local knowledge and reference points to help emergency services (and other service providers such as livestock vets) find their property.

“It’s simple really,” said Craig Westlake, SA Ambulance Service, general manager—Operations and Systems. “The third house on the right past the large gum tree just as you go past Joe’s corner. Not that bad.”

Westlake said outsiders—those unfamiliar with the “Joe’s corner” type of directions—are amazed when they hear how the information is relayed and the ability of local response to know just right where they are going.

“When you consider that we service a geographical area of about 1 million km²—but only a population of about 1.7 million, and 99% live on the coast—you can see that we have some fairly large rural areas to cover,” he said.

Locating by reference point and familiarity, however, will soon be in the past for Southern Australia compliments of the digital age. Rural property that would have been difficult or impossible to find previously without physical geographic markers can now be put in a digital format that transfers information freely and gives instant access: plot and point.

The rural property addressing system initiative started in 2010 is set up to attach numbers and street names to an estimated 55,000 rural property owners who have so far done without. All occupied rural properties, homes, and businesses will be on a named road with a numbered address consistent with national standards for Australia and New Zealand (road number, road name, locality, and postal code). Adjustments to accommodate future rural landowners are built into the system.

The number assigned to the property is based on the distance of a property’s entrance from the start of a road. For example, if a property entrance on the right side of the road is located 1,240 meters from the start of the road, the rural road number will be 124. Odd numbers are on the left, and even are on the right.

State governments and local councils managing the plan have stressed the ease of a numbered system compared to the confusion and time-consuming frustration of finding a property, particularly in an emergency, without something more tangible than looking for a large gum tree.

According to a state government rural addressing system campaign-style video: “In an emergency, or for everyday business, rural road numbers are a clear and logical way of finding properties, benefiting everyone in the community.”

The addition of numbers and road names hasn’t won over everybody the system will affect. Some like it; some don’t. Those taking the side of the government’s project cite the safety addresses will provide, particularly if an emergency service responding to a medical, police, or fire call isn’t familiar with the individual’s district. Those against it worry about the intrusion.

Rural property owners notoriously protective of their privacy don’t see the necessity of changing something that, for all practical purposes, works. Local councils have endeavored to balance their concerns by designing a system that identifies only the property, and not the owners. The computerized database does not require the user to enter the property owner’s name. It operates by street numbers and names.

For holdouts, the government suggests tact. “If your neighbor isn’t displaying their road sign it is recommended that you speak to them in the first instance in a calm and courteous manner,” according to tips available on the South Australian government rural addressing website. “Stress the importance of displaying the road sign to the local community and service providers, including the emergency services.”

Despite Westlake’s familiarity with the area, he welcomes the rural addressing system.

“When fully operational, the addressing system will be fantastic,” he said. “But it will take some time for the community to get used to actually having an address.”

In a project funded last year under the Digital Regions Initiative National Partnership Agreement, the SA Ambulance Service will provide high-speed mobile broadband to ambulances across regional, rural, and remote South Australia.

According to the funding agreement, the project will enable paramedics to access details of an incident and critical patient data in real time and improve interagency mobilization, communication with operational centers, as well as increase paramedic safety in remote areas and while operating in high-risk situations.
Seriously injured patients rely on you to give the best medical attention and care. To do that, you need knowledge, experience and the proper tools. That's why the Centers for Disease Control and Prevention (CDC) has released the widely endorsed *Field Triage Decision Scheme: The National Trauma Triage Protocol* to help EMTs and paramedics choose the best transport destination for trauma patients. Designed in partnership with other leading organizations and experts in injury care, the Decision Scheme has been published in the prestigious *MMWR Report & Recommendations*. It's a valuable tool that can help your EMS system save lives.

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Brett:

We had a debate whether to triage an incident as trauma or sick, using this scenario as an example: A female is brushing her teeth. Her jaw locks up. What would you recommend?

Angela D. Thomas, EMD
Fulton County Emergency Communications Center
Atlanta, Ga., USA

Angela:

As you have discovered, the difference between what is termed “trauma” versus “medical” is not always clear-cut! Dispatch definitions are designed to get us to the right protocol; specifically, with trauma protocol helps us to consider important factors such as the mechanism of injury and safety. On some calls, however, these concerns are very minor and using a medical protocol is not a problem.

Your scenario is a lot like other spontaneous injury complaints we sometimes receive, i.e., patient was lifting something, or even standing up out of bed, and heard a pop in the knee or hip followed by pain. In such cases, the “external force” is not very apparent because it is gravity, weight bearing or, in your case, movement.

While using Protocol 26: Sick Person (Specific Diagnosis) to rule out priority symptoms would not be a bad choice in your scenario, it sounds more like a traumatic injury affecting the joints of the jaw. While this would triage out to a 30-B-1 (Traumatic Injuries) because the jaw is part of the head, and Protocol 26 would likely come out as ALPHA if no difficulty breathing, I still believe Protocol 30: Traumatic Injuries (Specific) is the best choice considering that this is an actual injury. With a more severe injury to the jaw, the BRAVO response is appropriate because the head is involved. In this case, it is simply a slight over-triage, which the MPDS often does in the interest of erring on the side of the patient’s safety.

Brett A. Patterson
IAED Academics & Standards Associate Research Council Chair

Brett:

Thank you for your prompt response. Your answer has cleared up the controversy our center was having regarding Trauma vs. Sick or Medical. We now have a better understanding between the two.

Angela

Brett:

I have a calltaker who gave flawless DLS Instructions for CPR; however, on Panel 12 (CPR Compressions), the caller hesitated. Specifically, the calltaker was on Panel 12 when the caller said, “I need to call my mom, too.” The calltaker replied, “You can do that when the paramedics arrive,” and continued flawlessly with instructions. The caller then stated, “He’s not doing anything; he’s not breathing; he’s not doing nothing.” At this point, the calltaker asked if the caller wanted to continue CPR, and the caller said, “No, because he is not breathing. He’s not doing anything.” The calltaker replied, “We are doing CPR because he is not breathing, that’s why we are doing it. Do you want to continue CPR?” The caller answered, “Yes.” The calltaker resumed giving CPR instructions.

We are unsure how to grade these types of comments. The calltaker did not ask if the caller wanted to perform CPR but, rather, if she wanted to continue. Is this a critical deviation, freelance question? What do you recommend?

Melody A. BonAmi
Manatee County Public Safety
Bradenton, Fla., United States

Melody:

From your further description, it sounds like the EMD had the best of intentions but simply used the wrong words. The calltaker explained that CPR was being done because the patient was not breathing,
EUGENE, Ore.—There's a famous 9-1-1 call from four years ago in which a young father is two levels into panic mode beholding his pain-riven wife in the midst of a breech birth of their son. The situation could have become infamous had it not been for the quick pivot and good hands of veteran Central Lane Communications dispatcher Cassie Ezell.

The about-to-be dad is completely beside himself—a condition the dispatcher's supervisor and more than one listener calls "pretty much a basket case." He comes all but unraveled when his new son starts to present but his tiny shoulder becomes lodged behind the mother's pelvic bone. The father only knows this because Ezell has come to the guided conclusion through the Medical Priority Dispatch System™ (MPDS) post-dispatch interrogation that the infant's body is blocking his entrance to his life on Earth.

By following the prompts on Protocol F: Childbirth–Delivery Panel 6, Ezell knows that after three hard contractions and still no birth she must switch to Panel 16, 17, and ultimately 18, all the while reassuring the father: "I've done this before; listen very carefully, and I'll tell you what to do next."

The mood of the situation seems to flip immediately, and the change is palpable, even over the phone. The father's demeanor turns from intense anxiety to clear-headed calm as he is not only told what to do next, he clearly believes that's exactly what's going to happen.

The call is a watershed moment for Central Lane Communications; not only did it occur at almost the same time that the center decided to go for ACE status—which it achieved this past April officially at this year's Navigator conference in Baltimore—it is the documented proof that the center is a model for how dispatching is done, not just in central Oregon but throughout the Northwest.

"Cassie did nothing short of a phenomonal job, as anyone who hears that call can tell," Communications Supervisor Cynthia Altemus told The Journal in July. "We play that call whenever we get a chance for all kinds—public and public safety—of audiences. Every time, people will come up after—men included—and say, 'When I have a baby, I'm calling you guys no matter what's going on.'"

Altemus takes that as the high praise that it's intended to be. The center has set a standard of the can-do, no-matter-what first responders. It's not something they say. It's what they do, and they do communications for public safety agencies and cover a region of about 300,000 people in Lane County. They are part of a new unified rural fire department. They handle calls—police, fire, and medical—for the twin cities of Eugene/Springfield and are part of discussions of a plan in the works to join the Eugene and Springfield fire departments. It's such a sure thing that the fire chief's business card says Springfield on one side and Eugene on the other.

The unification is made possible under a new Oregon Revised Statute provision that allows public safety departments of similar size or approximate regional connection to join forces to get the most out of public funding. That has made for a lot of territorial
reconfiguring, not to mention some retooling of attitudes about who is responsible to whom and for what exactly.

“It’s pretty much a day-at-a-time thing for us,” Altemus said. “We’re the designated PSAP and the generic one when people aren’t sure. If we don’t handle a jurisdiction exactly, we know who does and will get the caller into the right hands.”

The 9-1-1 breech baby call isn’t just a trust-promoting illustration that Central Lane knows what to do in some big-time hours of need, the incident is a metaphor—achieving ACE designation was its own kind of difficult birth.

“It was a goal of management, but it wasn’t a shared goal within the center somehow, if that makes sense,” Altemus said. “I think other comm. centers will know what I mean; those who have decided to become an ACE will understand anyway. It was as if the harder we tried or the more we focused on it, the more difficult it seemed to get.”

ACE designation wasn’t just the natural order of things that some centers report. “Our level of expertise was high enough, but we didn’t quite have all the pieces in place,” Altemus said. “We had incredible support from our police and medical agencies, meaning they backed us and really never had a discouraging word about our performance. But somehow, we just didn’t quite bring the energy into the right focus.”

From the outside looking in, it’s no wonder drawing the bull’s eye was kind of a moving target. The center covers a region of about 270 square miles, including Eugene proper, providing emergency medical dispatching in addition to routing other emergency calls for Lane Rural Fire/Rescue, which just blended two rural fire districts under one administrative umbrella.

Knowing which calls were to be handled and which are hand-offs is an abiding chore itself, and with fire districts and other public safety agencies taking advantage of a state revised statute to get the most out of public funds by joining forces, dispatching became a moving target within a moving target for the communications center. Not to mention, every city’s public service and safety agency has either moved into new buildings or are about to by this fall.

“Externally, let’s just say we’ve had about every challenge, and going after an ACE got put aside a few times the past four years,” Altemus said. “Somehow though, the less we worried about trying to get it, the more it seemed to come to us. It’s like we got out of our own way, and things just kind of started to flow and fall into place.”

New in the mix—although mostly internally to the fire and rescue in the area—is the unification of Lane County Fire District No. 1 and Lane Rural Fire/Rescue. The official start date of the unified service was July 1, but things have been humming organizationally for a good year.

Lane Fire Chief Chris Heppel said on KGNU-FM’s Community Forum hosted by long-time journalist and public safety agency advocate Tracy Berry that the communications center has a lot to deal with, but fortunately the new and improved fire and rescue approach has become just another part of the job at Central Lane.

“Continuity and consistency are part and parcel to all aspects of emergency services,” Heppel said. “We’ve got both in our communications center, no matter how agencies are organized or reorganized from within.”

Altemus said the support of the responder agencies is a huge plus. “We know it’s not that way in a lot of places,” she said. “I always like to say, partly tongue-in-cheek: “You guys do the germs and we’ll do the rest.”

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No Bees Involved
Swarming presents police officer safety issue

By Audrey Fraizer

The violence of mob actions depicted in written word and video makes you nauseous. An overwhelming feeling of dread watching the tension build pushes the more sensitive or, at least, the more street naïve observers further down in their chairs.

In one scene, a mob of at least 50 angry female teenagers in New York City carry knives, blades, and guns, challenging a girl with a heart problem to come out of her house to face the consequences of a "he said, she said" quarrel, shouting, “We’re gonna punch you in the chest. We’re gonna fix your heart condition.” Two officers arriving at the scene are knocked down and “banged up” pretty badly before they’re able to call for back-up assistance. Firefighters from the nearby New York City Fire Department Engine Company 138 blast the violent mob with their high-powered water cannon. Nine are arrested.

A mob of 50 to 70 people from a small town in Saskatchewan, Canada, surround a police truck and ambulance, pelting cans, bottles, and debris at emergency responders and curse Royal Canadian Mounted Police (RCMP), blaming them for injuries to a partier who crashed his ATV into a ditch during a police drunk and disorderly pursuit. Mob members on ATVs and cars follow the ambulance to the hospital, banging on the doors to get to the people barricaded inside. A RCMP vehicle is set on fire and an ambulance is severely damaged.

An Edmonton (Canada) police officer responding to a fight at the Oil City Roadhouse is punched and kicked in a “terrifying” downtown swarming that leaves him bleeding and bruised; earlier that same year, a second Edmonton police officer is beaten unconscious by hoodlums near a high school.

A violent mob in Alice Springs, Australia, throws rocks and swings logs at police attempting to place a “very drunk” couple into protective custody. Tasers used against the crowd prove ineffective and police are forced to release the man and woman they had taken into custody.

The incidents, which occurred between 2009 and 2012, demonstrate an alarming trend in violence against police officers and medical crews responding to scenes of mob rule and reports of disorderly conduct fueled by the use of social media channels and text messages to attract larger numbers to the incendiary situations.

According to numbers provided at the Navigator 2012 session “Swarming: An Officer Safety Issue,” more than 60,000 police officers worldwide are attacked each year, either by lone assailants or the actions of escalating mob disturbances at sporting events, labor disputes, parties, and other gatherings triggering civil unrest. While swarming—the unexpected gathering of large numbers of people in particular public locales—doesn’t necessarily lead to violence, someone causing a disturbance within a crowd can trigger antisocial behavior. Violence can erupt spontaneously and grows out of crowd dynamics.

“Mobs make everyone vulnerable,” said Edmonton Police Service Sgt. Joan Ashmore. “People get caught up in the moment, emotions take over.”

Real and potential events like these—assaults on police and mob violence—in Edmonton’s burgeoning entertainment district several years ago led to the creation of the Edmonton Public Safety Compliance Team (PSCT), as part of the city’s Responsible Hospitality Edmonton (RHE) initiative. The multi-agency PSCT, consisting of the Edmonton Police Service, Edmonton Fire Safety, City of Edmonton Community Standards Branch, and the Alberta Gaming and Liquor Commission, oversees the safety of the hospitality industry—bars, nightclubs, events, and after-hours clubs—and monitors the impact these businesses have on their surrounding communities.

The PSCT plays multiple roles within Edmonton, Ashmore said.

The team selects premises for joint agency attendance and inspection based on a number of factors including past history and special events. They provide guidelines and standards for establishments involved in the sale and service of alcohol and support local strategies that help reduce crime (surveillance, reinforcement, and access control). They enforce municipal and provincial ordinances, such as the Edmonton Public Places Bylaw that regulates smoking, fighting, urinating, and defecating in a public place, dangerous actions, weapons (capable of firing projectiles), bullying, and handbills.

The team also protects those in the service of protecting others, according to co-presenter Tracy Ward, a sergeant with more than 20 years experience with the Edmonton Police Service, with the last nine years as a calltaker and dispatcher.

“The mood has changed,” she said. “Uniforms no longer command respect. The mob mentality can be like something out of the book Lord of the Flies. Mob rule means imposing what the mob wants.”
C

ombine the challenges and the excitement of a paramedic with the rush and freedom of riding a motorcycle and what do you have?

Well, a pretty sweet gig in my opinion.

Paramedics, especially those in urban settings, are constantly trying to find new ways to reach the patient in less time. Putting paramedics on motorcycles is one way that appears to be working. With drastically reduced response times, paramedics arriving on this highly mobile mode of emergency transportation may make a difference when response times matter to the survival of the patient—such as in cases of cardiac arrest and resuscitation—and provide a highly mobile and rapid extra set of hands for back up to ambulance crews.

Their use in emergencies, however, is far from new, according to Summa Health System EMS Director (Akron, Ohio) Francis Mencl, MD, MS, FACEP, FAAEM, in his presentation “Alternative Vehicles: Motorcycles in EMS,” given at the EMS Safety Summit 2012 sponsored by the Transportation Research Board of the National Research Council. In fact, it’s more like a revival of the life-saving strategy on two wheels.

Paramedic motorcycles have been around since the early 1900s and were commonly used during WWI. They’re the practical way to travel in heavily congested urban areas and cost less than sending an ambulance or adding another ambulance to the fleet.

During the past two decades, motorcycle paramedics have proven their worth in emergency medical response in South America, Eastern and Western Europe, Australia, Asia, and Africa.

Since 2000, the São Paulo (Brazil) Fire Department has operated Honda motorcycle ambulances in a first responder role to offset the delay of traditional ambulances caused by horrific traffic congestion. Always deployed in two-man teams, the lead vehicle carries a first-aid kit and IV fluids, and the rear vehicle carries more advanced equipment such as an automated external defibrillator and suction devices. By getting there before ambulances, the moto-medics (as they are called in Brazil) can triage the patients and analyze what can be done.

In America, motorcycle rescue units (MRUs) are picking up momentum. Miami-Dade (Fla.) Fire Rescue (MDFR) pioneered a fleet of 10 Harley Davidson motorcycles in 2006. Others like Austin-Travis County (Texas) EMS (ATCEMS) and City of Pittsburgh (Penn.) EMS are making inroads in a trend that could be taking root. The ability of the MDFR Motorcycle Emergency Response Team (MERT) to move through traffic reduces response time for immediate life-threatening calls to less than three minutes.

So what are the odds you’ll see motorcycles added to your local EMS fleet soon? What role will they play in the Medical Priority Dispatch System™ (MPDS)?

Austin’s pieces fall into place

Commander Kurt Brown and Division Chief Jason Martin led the effort to get ATCEMS on two wheels. They approached Austin’s Greater Area Crime Commission (GACC) for assistance in lining up grants and donations for the initial fleet of motorcycles. The Austin Police Department then welcomed paramedics to train with their police motorcycle teams and even modified parts of their training program to be more applicable to the different operational demands of the paramedic riders.

“We were lucky,” said Eric Jakubauskas, ATCEMS Operations division chief. “It took a few years, but the pieces eventually fell into place.”

The first EMS motorcycle response unit—two paramedics on donated BMW G 650’s dual-purpose motorcycles fully equipped with sirens, lights, and standard ALS medical equipment—was deployed with great success at the
Whatever Comes Our Way

The ability of motorcycle rescue teams to maneuver through traffic and monitor special events reduces response time for life-threatening incidents.
Austin Marathon in February 2009. In the spring of 2011, ATCEMS added a highway program, which focuses MRU response to accidents and any other medical emergencies along the heavily congested I-35.

When on highway duty, MRU teams wait at their staging points for three hours in the morning and three hours in the afternoon during rush hour times; the units average about five calls per shift. MRUs regularly arrive in enough time to assess the patient and either downgrade incoming units or prepare the patient for ambulance transport.

“Whether used on highway duty or at special events, they act as a force multiplier (to borrow a military term),” Chief Jakubauskas said. “Their presence enhances our current operations and provides a better service to citizens.”

Dispatch application

Emergency motorcycle response offers dispatch flexibility in responding to calls that have a low likelihood of patient transport. This makes patient triage through MPDS an ideal tool for determining whether to dispatch a MRU, ambulance, or both. Motorcycles are especially well-suited for many ALPHA- and OMEGA-level calls when transport is unlikely. In lieu of dispatching an ambulance, a single paramedic on a motorcycle can assess the patient, render care, and secure a patient refusal for transport far more efficiently than an ambulance crew. Motorcycle units responding to “lighter duty” also leaves ambulances available for more urgent calls.

ATCEMS is dispatched through a central agency, Combined Transportation and Emergency Communications Center (CTECC), which classifies them as ALS units without the obvious transport capabilities. The paramedic has the tools, equipment, and supplies necessary to handle triage and many less severe injuries. If transport is needed, motorcycle paramedics attempt to stabilize the patient in anticipation of the emergency vehicle’s arrival.

At special events, CTECC notifies the designated commander who coordinates the movement of special units reserved for the event (motorcycle, bicycle, ATV, ambulance). The versatility of motorcycles is a definite asset since they can navigate thick crowds attending one event, cover great spans of area in another, and even go off road for patients that may be in more remote, inaccessible locations.

During highway operations, MRU teams are CTECC tracked with the automatic vehicle locator built into each motorcycle. Motorcycles are manually placed on the call and dispatched in tandem with the first ambulance due for that location. Austin’s MRUs can downgrade incoming units although they never handle the situation independently.

Advantages

Advantages of motorcycle EMS include mobility, speed, and the lower operating cost of motorcycles compared to ambulances. A motorcycle can ride the shoulder or weave in between vehicles to reach a traffic crash minutes before an eight-foot wide ambulance is able to make its way through heavy traffic. The patient receives help faster.

Chief Jakubauskas estimates ATCEMS motorcycle units arrive on scene to highway incidents an average of 1 minute before the ambulance. The time saved is typically greater during special events like the Austin Marathon. Dr. Mencel, in his presentation at the EMS Safety Summit, showed Australian motorcycle EMS response times are an average 4.5 minutes below the average response time for an ambulance crew. According to Dr. Mencel, during the same talk, motorcycle response was less than three minutes for life-threatening calls compared to six to eight minutes with an ambulance.

A study published in the American Journal of Emergency Medicine (A method to reduce response times in prehospital care: the motorcycle experience, 1998 Nov;16(7):711-3) arrived at similar results. “During rush hours [in Taipei, Taiwan, a densely populated urban area], the response times of the BLS motorcycle and ALS ambulance were 4.9+/-3.0 minutes and 6.3+/-3.4 minutes, respectively, and in non-rush hours, 4.2+/-2.1 minutes and 5.1+/-2.5 minutes, respectively. Using motor- cycles to transport EMTs to the emergency scene significantly reduced response time compared with a standard ambulance in a congested urban setting.”

Sending a MRU costs less than ambulance response. A study in Oslo, Norway, revealed the hourly operational cost of dispatching a MRU was 61% less than an ambulance (Nakstad et al, 2009). The authors of a study published in the Scandinavian Journal of Trauma, Resuscitation & Emergency Medicine (2009 17(1):9) concluded that ambulance use was avoided in 23.5% of all motorcycle responses. Treat and release is more likely to occur when the motorcycle medic responded irrespective of complaint, except for the elderly who are more likely to be transported irrespective of response mode, according to Dr. Mencel.
Misconceptions

Since responder safety is paramount in EMS, some skeptics may be quick to dismiss motorcycles units because of perceived risks. The accident rate, however, is lower than one might expect. According to a 2008 report in Portugal by Kiefe & Soares-Oliveira, only 12 MRU paramedics were involved in traffic accidents over the course of 30 months and 3,626 calls. Each accident involved just the MRU and only three paramedics were injured. Of those three, only one injury was considered serious due to a broken femur. ATCEMS has had three minor incidents and no injuries in the past three years of operations. Two accidents were merely scratched paint but recorded nonetheless.

Chief Jakubauskas attributes lower operating speeds to relatively minor accidents when they do occur. “A paramedic will likely be operating a motorcycle through crowds at a special event or congested traffic at a much lower speed in comparison to a police motorcycle unit that must keep up with or even exceed the speed limit in the course of duty,” he said.

Even so, Chief Jakubauskas stresses safety equipment and sound training as the most important elements in planning a MRU program.

Motorcycle paramedics require advanced safety training and ATCEMS follows the typical training regime police riders receive: 80 hours (2 weeks) of initial training followed by regular refresher courses. Austin is the first city to send a paramedic to certify as a motorcycle instructor, which eliminates the need to outsource training and allows ATCEMS to cater its training specifically to the needs of its EMS motorcycle operations.

Predictions

Chief Jakubauskas estimates 10 to 12 agencies have approached him for information and ideas about how to start similar programs. He stresses the importance of networking, finding grants or donations to help cover initial costs, and making safety and training the program’s centerpiece. Overall, he is optimistic about the future of his department’s EMS motorcycle program and believes other cities will soon follow.

Whether a MRU will be coming to your town any time soon depends on three factors. The first two are climate and population density.

If you’re reading this article from a dispatch center in a large southern city, your odds of seeing MRUs implemented are much greater than, say, a small town in Maine. There’s a role for them in northern cities, but they’re limited by inclement winter weather. Areas with a larger population typically have greater problems with traffic congestion, which is where the most utility is found with a motorcycle unit.

The third factor is culture.

A MRU program requires leadership willing to risk the investment of money and personnel. It also requires advocates within the department with enough clout to champion the program. However, as Chief Jakubauskas pointed out, it’s yet to be seen if this trend will take hold in the United States like it has internationally.

If a few more cities can soon follow the lead of Austin, Miami, and Pittsburg, others may indeed find their center dispatching this latest addition to the EMS fleet.
High And Wide
Space and floor-to-ceiling light are showcased in the new Salt Lake City Public Safety Complex.
Imagine, if you can, a dispatching center that is nearly 8,000 square feet and the view from the console includes floor-to-ceiling, 180-degree, glare-proof views of the outside world. The break area features a dispatchers-only deck. There aren’t private offices for the bosses because the best space is designed and used for the comfort of the folks at the consoles. The access to the electronics is a floor below, so when things go kaput, the center can operate seamlessly without supervisors blowing a fuse.

Imagine that communications isn’t an afterthought but the centerpiece—even the showpiece—of a multi-million-dollar public safety complex that is both a model of functionality and part architectural wonder. Its structure is broad-beamed steel welded to pillars sunk 50 feet below double-rebar concrete, and the frame is nestled into a series of giant shock absorbers designed to absorb the worst earthquake like a car’s front wheel hitting a pothole. And, the building is so energy efficient it leaves no carbon footprint whatsoever.

In your dreams? Pie in the sky? Nope. Everything anyone could think of that any dispatcher could want is included in the new Salt Lake City Public Safety Complex, which, when it opens in the spring of 2013, will go by the ten-code moniker “10-19” as its location.

They don’t want to brag about it, but the architect and the public safety facilities managers involved with its concept, design, and construction simply can’t help it. They’re as proud as new papas and came close to handing out cigars at the steel topping ceremony this past July.

As the ceremonial final steel girder was hoisted into place on July 13, perhaps the biggest smile in the crowd of city dignitaries and the group of bustling steelworkers momentarily milling on the ground floor was found under James L. McClaren’s hardhat. McClaren is the principal architect of the complex and is the M of MWL (McClaren, Wilson & Lawrie, Inc.) of Phoenix, Ariz.

“This is a center by which all other emergency communications operations will be measured,” McClaren said as the 1,500-pound piece of steel rose to the southwest corner of the complex where it was ceremoniously bolted into place atop the four-story structure. His statement was more matter-of-fact than boasting; his company has a pedigree of public safety projects that ranges from huge FBI data centers to county PSAPs, but this is the one he talks about everywhere he goes.

“Design professionals, the least we can do is treat dispatchers with respect, while creating environments that are humane,” McClaren said over a lunch of barbecue beef under a steel skeleton stairway. “It seems so simple. Yet, most 9-1-1 centers fail in providing the basics such as environmental control, glare, ergonomics, and noise. Sheesh!”

McClaren points out that his company’s surveys and those by several communications centers show that moving people into a better workplace environment dramatically reduces turnover. Give dispatchers room, a view, and as much control over their own spaces and replacement rates drop from 30% annually to almost zero, he said.

“We spent a lot of time watching dispatchers at work, and for people who are the key factors in the course of lessening the severity of a situation to outright saving lives through what they communicate, we listened,” McClaren said.

They also heard what dispatchers didn’t say—rubbing their necks constantly, rubbing their elbows, shifting their weight in chairs. “They were caught in an ergonomic hell, tethered to their own space, often literally. Dispatchers need to be separate with their own space to move and to decompress after a high-stress incident that has taken total concentration to handle,” he said. “In a way, they need to be able to climb into their own cocoon and stay there.”

The dispatching center couldn’t be described in any terms as closed off or cocoon-like in appearance, but...
both aspects are there and attended to in their way, building planners said.

**Eloquent, not elegant**

Basically, if it has anything to do with emergency dispatching, it’s been factored into the structure and array of services on the building’s third-floor plan that included a series of often marathon-length meetings.

Salt Lake City Police Sgt. Scott Teerlink, head of departmental facilities man-agement, along with Deputy Chief Tim Doubt, department logistics bureau man-ager, have been at it full time for more than three years, putting every necessity and operational amenity into the $125 million building, from determining the best use of the 172,000 square feet on the interior to the four floors—two above ground and one below 143,000 square feet of secure parking.

The single motivating principle of the entire structure, the element that makes it both eloquent and elegant, is the capacity to communicate and work together in times of crisis, McClaren said. “Communication is what it’s all about in any emergency, and too often the crisis is manifolded by lack of interaction among the responding agencies at the command center level. This addresses that abiding knot in the system by just getting rid of it altogether.”

The idea is to have everybody work together but not interrupt each other, Teerlink told *The Journal* during a guided tour of the building’s third floor emergency operations center. “The walls that both literally and figuratively separate communications in the [existing] cramped building retract for big emergencies in the new complex. Those in the command center and all personnel having anything to do with communications, whether internal at the command center or externally to provide updates to the public through the news media, are in a few seconds literally working together.”

“We drew the line at what functions best,” Doubt said. “There were elements we had to cut back and amenities that could have been nicer, but as far as the form meeting the function of dispatchers and what they do, this is as good as it gets. We keep reviewing and looking for things we have missed, but so far, we haven’t come across anything.”

Public safety is a particularly nettlesome building process because departments tend to reorganize and organize again constantly, McClaren said. That makes pegging exactly what each agency needs a kind of moving target within a moving target.

To avoid that double conundrum, Doubt said, “We used exactly the opposite tactic to what is the normal approach in building new space—at the first and regularly along the way, we met with employees and not with the bosses. We had input from the supervisors but often simply told them, ‘No, you can’t have that corner for an office,’ or ‘No, you can’t have your own printer.’ The employees do the work, so they’ve had the most input and most say. That’s how it should be because they’re the ones who are at the stations, at the consoles day in and day out.”

And they were more than willing to say what’s what, McClaren said, noting that in the dispatching portion of the third floor, space for supervisors and private meetings are located at the center of the operation, not around the outside, which is customary for an agency in most public buildings.

“This is no minor achievement, and I’m quite sure it will contribute to the flow of
like the one we just finished in Buffalo, N.Y., this will not be just the emergency response center. It can monitor everything from purse snatching to a commuter-aggravating pothole.

That's a problem, not just in volume, he added. "I was just in a meeting with a dozen public safety personnel and there wasn't one laptop in the room; it was all e-pad devices," he said. "The public we serve can't wait to buy the next new device, but they are practically obsolete the moment you buy them. That's a difficult reality for folks trying to get the most public service and safety out of a single centralized location."

But that's also all the more reason to have the flow of emergency information coming into a single clearinghouse-type center, he added.

A zero-sum building

Another type of energy—energy emissions—is worthy of note in a profile describing the ideal communications center.

The structure is the first public building in the country to be a "net zero energy emissions" building. That means it will produce at least as much emissions-free renewable energy as it uses. Heat and electricity will be produced by panels located on the roof in combination with the building's canopy that also provides shaded walk and sitting areas for the public.

Along with using all natural light available during the day, louvers will be placed over the windows to help direct natural sunlight and create lighting inside. The lights within the work stations of the building will turn off automatically to save energy when there is enough natural light in the room, thanks to the level of occupancy and daylight sensors.

Water will be heated by the solar panels for the sinks and locker rooms. Radiant tubes are seated in the floor to heat and cool the building, a design element that Miller points out as far more efficient than the standard forced-air systems commonly used in public and private businesses, commercial buildings, and residences in the Mountain West.

There was a time when—barely a generation ago—that the dispatching center was a pseudo-convalescent center for hurt officers or post-surgery mending, McClaren said, noting that his own father became a dispatcher after being hurt on the job as a police officer. "Dispatching has been part of my life all my life. That connection is the heart of this state-of-the-art building."

James L. McClaren

www.naedjournal.org
Editor’s Note: The March/April 2012 issue of The Journal featured FPDS Protocol 56: Elevator/Escalator Rescue. In this installment, we will review the Escalator portion of this dual Chief Complaint Protocol.

We take for granted our daily use of the estimated 35,000 escalators in the United States, each serving an average of 12,000 people per year and, collectively, providing trips to 105 billion passengers per year.1

People living and working in high-rise buildings probably use these mass movers thousands of times while performing their personal and professional duties, and a visit to the mall wouldn’t be as inviting without the motor-driven carrier ferrying shoppers from one floor to another. Although a stationary stairway may be built alongside a movable stairway, leg power is the likely loser to engine power in a survey of comparative use.

By Ronald Richard
How an escalator works

The heart of the escalator is a microprocessor-controlled motor that turns the main drive shaft. The drive shaft powers the chain that rotates the steps in sync with another chain that rotates the handrail; this handrail is a rubber conveyer belt looped around a series of wheels. The steps are wedge-shaped risers that move along this continuous conveyer in an upright position, collapsing on each other at the top and bottom of the escalator.

The mechanics behind the continuously rotating stairs of an escalator is similar to pumping a bicycle: a pair of chains is looped around two pairs of gears powered by a motor (similar to legs pumping) constantly moving in one direction. The result is a smooth and rhythmic rotation.

However, if the chain snags, the gears crunch, or the power stalls, the escalator comes to a halt while the riders’ momentum continues. This can cause riders to stumble or fall. The escalator’s motor also continues to run whether something is entrapped or blocking the chain’s movement, which forces the chain to continue its rotation forward. In a malfunction or incident, it may be necessary to bring an escalator to a complete stop by shutting off the power with an “emergency escape” button found, in most cases, at the top and/or bottom of each unit, mounted low or even below belt level.

Escalator injuries

Escalators provide a quick method of transporting a large population between floors with speeds varying from about 90 feet per minute to 180 feet per minute; an average escalator moving 145 feet per minute can carry more than 10,000 people an hour, far above the capacity of an elevator in the same time frame due to waiting periods between the elevator’s trips.

Although the nicknamed “moving staircase” is generally a smooth Point A to Point B venture, accidents can happen at either point or in between. These accidents can be caused by defects associated with escalators, including: missing teeth on the escalator track, loose or missing screws, broken or missing steps, excessive space between the steps and the escalator sides, and general malfunction.

However, the majority of escalator incidents begin with a trip or fall, which sometimes leads to entrapment. Escalator incidents can also occur when a shoelace or piece of fabric gets caught in the teeth of the escalator or when a foot or hand becomes stuck in the brush guard (the area between the track and support structure of the elevator), often resulting in a foot or hand injury from the step scraper at the top or bottom of the escalator. Finger entrapment and comb plate entrapment can also occur, especially with children.

The Consumer Product Safety Commission (CPSC) reported the following escalator deaths and injury statistics from 1992 to 2003, in the United States:

<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>Number of Deaths</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonwork-related</td>
<td>24</td>
<td>an average of two deaths per year</td>
</tr>
<tr>
<td>Of which were clothing entrapment</td>
<td>8</td>
<td>deaths were the result of clothing being caught at the top or bottom of the escalator or between the stairs and the side wall of the escalator</td>
</tr>
<tr>
<td>Of which were falls, some involving major head trauma</td>
<td>16</td>
<td>deaths were the result of falls, some involving major head trauma</td>
</tr>
</tbody>
</table>

Of the 6,000 escalator injuries per year, falls accounted for 75% of the total number of escalator injuries per year, entrapment accounted for 20%. Of the total number of escalator injuries per year, entrapment accounted for 8%.

Age in which children were more frequently involved in “caught-in” injuries, which tend to be more serious:

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–5</td>
<td>16</td>
<td>95%</td>
</tr>
</tbody>
</table>

The odds that a person will die from an escalator accident in the United States are 1 in 10,440,000 but when accidents occur, they disproportionately strike two groups: children five years old and under and adults 65 years and older.

According to a retrospective study of escalator-related injuries among children in the United States:

There were an estimated 26,000 escalator-related injuries among those aged 0 to 19 years old in the United States during 1990–2002, yielding an average of 2,000 of these injuries annually. The mean age was 6.5 years at the time of injury, and 53.4% of the patients were male.

The most common mechanism of injury for all age groups was a fall, accounting for 13,000 (51.0%) injuries. Entrapment accounted for 29.3% of all injuries and 36.5% of injuries among children who were younger than 5 years old.

For children 5 years old and up and adults, injuries to the leg accounted for 27.7% of all injuries; among these, lacerations were most frequently reported. Among children younger than 5 years old, the hand was the most common injury site (40.6%), with hand injuries frequently occurring as a result of entrapment (72.4%).

A retrospective study of escalator-related injuries among older adults (mean age 80.1 years) using data from the National Electronic Injury Surveillance System of the U.S. Consumer Product Safety Commission, showed a slip, trip, or fall (84.9%) was the most common injury. Among children younger than 5 years old, the hand was the most frequently reported. Among children younger than 5 years old, the hand was the most common mechanism of injury (40.6%), with hand injuries frequently occurring as a result of entrapment (72.4%).

Recent reports collaborating statistics include the following scenarios.

In March 2012, the New York Times reported that an 88-year-old woman died after she fell down an escalator at the Lindenhurst station of the Long Island Rail Road. According to preliminary investigation and autopsy, the woman choked to death when her clothes got entangled in the escalator’s treads. The Metropolitan Transportation Authority had hoped to replace the escalator that had received some complaints of malfunction, though it had passed inspection after a minor repair in February, a month previous to the incident.

In June 2012, a large retail furniture outlet in Milton Keynes, England, was fined when a two-year-old boy had two fingers severed on the store’s moving walkway. The toddler was holding his father’s hand when he stumbled and fell. The left hand he extended to stop his fall became trapped between the

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machine's skirt and tread, severing two fingers. An investigation into the incident revealed that the gap between the skirt and tread was larger than the legal limit of 4 mm and posed a potential safety hazard.\(^{10}\)

An escalator accident can also be the result of inattention or inappropriate ridership. In June 2011, an 18-year-old intoxicated male, using a subway escalator in Cambridge, Mass., fell over when he tried to sit on the hand strap for the ride to the fourth-floor level exit. The youth fell over 20 feet, landing on his upper body.\(^{11}\) The call was coded 17-D-5 LONG FALL. The fall was the result of negligence of the rider who was using the escalator improperly.

**Escalator 9-1-1**

Handling an emergency call for an escalator rescue differs slightly from an elevator rescue. The calltaker still needs information about the number of people trapped and/or injured, the location of the escalator, and the best entrance to get to the escalator; however, because an escalator is more of an “open air” mode of travel, there is usually less caller guesswork involved.

Passenger safety issues are prioritized as the initial Key Questions of Fire Priority Dispatch System\(^{*}\) (FPDS) Protocol 56: Elevator/ Escalator Rescue. Escalator Key Questions 1 and 2 begin by asking whether persons are still trapped, whether the escalator has been turned off, and whether anyone is injured (how many). Based on the responses to these first two Key Questions, the EFD should be able to determine the appropriate Determinant Code, whether 56-D-1 “ENTRAPMENT (escalator) with injuries,” 56-B-2 “Caught (escalator) with no injuries,” or an OMEGA code, if applicable, “Escalator incident— not caught (with or without injuries).” An ENTRAPMENT, as defined on Protocol 56, is “a situation involving prevention of escape in which there is an increased threat of injury, illness, or death to a person.” In rarer situations, the EFD may select 56-B-3 “Unknown situation (investigation)” for a third-party caller who is not aware of the situation and unable to see the escalator and its occupants.

However, if a known incident has occurred and the caller is unsure of a patient’s status, Rule 3 instructs the calltaker that: “All persons caught in an escalator with unknown injuries are considered injured until proven otherwise. Such incidents should be coded as 56-D-1.”

After initiating dispatch, the EFD should give Post-Dispatch Instructions (PDIs) including how to turn off the escalator, if necessary, by pressing the emergency shut-off switch (button) at the top and/or bottom of the escalator. If possible, the caller (or calltaker—if in direct contact with the trapped individuals) should maintain verbal contact with the trapped people and assure them that help is on its way. The EFD should also advise the caller to contact building management.

The **dispatcher and caller should determine a clear meeting point for emergency crews.**

The concluding Key Questions request information about the escalator’s location and the best entrance for responders to access the escalator. Together, the dispatcher and caller should determine a specific, clear meeting point for emergency crews.

**Escalator extrication**

The first step to rescuing a trapped individual is to stop the escalator, which will not stall or stop until the emergency shut-off switch has been activated. The EFD should give the instruction to push the button at the top and/or bottom of the escalator as part of the PDIs, before response even arrives on scene. However, if for whatever reason the emergency shut-off switch does not respond, responders may attempt to kick the brush skirt to stop the escalator. This should not be attempted by callers or bystanders. Once the escalator is stopped, it’s time for response to act.

Removing the injured individual from the escalator involves closing off the upper and lower landings. Responders will determine the approach necessary to extricate the victim. For example, if the patient’s hand or foot is stuck in the brush guard, responders will place heavy-duty spreaders between the exposed track and support structure to extricate the victim. If it’s the step scraper trapping the victim, responders will remove the pit cover, taking extra precautions to keep the victim from falling into the pit while being rescued.

**Code and regulations**

In the United States and Canada, new escalators must abide by the American Society of Mechanical Engineers’ (ASME) A17.1 standards that cover the safe design, construction, installation, operation, inspection, testing, maintenance, alteration, and repair of transporting machinery including escalators, elevators, dumbwaiters, moving walkways, etc. Old/historic escalators must conform to the safety guidelines of ASME A17.3, adhering to a minimum requirement that will provide a reasonable degree of safety for the general public. Most states require permits for escalator installation or alteration and new or altered equipment must be inspected prior to opening for public use. Some states shutdown escalators when property owners fail to adhere to regular maintenance inspections.

**Sources**

3. See note 2.
4. See note 1.
7. See note 1.
**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.**

A CDE acknowledgement will be sent to you. (You must answer 8 of the 10 questions correctly to receive credit.)

Clip and mail your completed answer sheet along with the $5 NON-REFUNDABLE processing fee to:

The National Academies of Emergency Dispatch
139 East South Temple, Suite 200
Salt Lake City, UT 84111 USA
Attn: CDE Processing
(800) 960-6236 US; (801) 359-6916 Int.

Please retain your CDE acknowledgement for future reference.

Name _________________________________
Organization _____________________________
Address _________________________________
city ________________ st./prov. _____________
country _________________ ZIP _____________
Academy cert. # ___________________________
Daytime Phone ( ) _______________________ 
E-mail _________________________________

**PRIMARY FUNCTION**

☐ Public Safety Dispatcher [check all that apply] ☐ Medical ☐ Fire ☐ Police
☐ Paramedic/EMT/Firefighter
☐ Comm. Center Supervisor/Manager
☐ Training/QI Coordinator
☐ Instructor
☐ Comm. Center Director/Chief
☐ Medical Director
☐ Commercial Vendor/Consultant
☐ Other

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1. What is the estimated average number of people each escalator in the United States transports each year?
   a. 12,000  
   b. 35,000  
   c. 1.5 million  
   d. 105 billion

2. The mechanics behind the continuously rotating stairs of an escalator is similar to what mechanical device?
   a. Jaws of Life  
   b. come along  
   c. wench  
   d. bicycle

3. Escalator speeds vary:
   a. from about 1 mile per hour to 2 miles per hour.  
   b. from about 90 feet per minute to 180 feet per minute.  
   c. depending on the time of day.  
   d. depending on the number of people in transit.

4. From 1992 to 2003, the Consumer Product Safety Commission (CPSC) reported that more deaths were caused by clothing getting stuck in an escalator compared to falls on an escalator.
   a. true  
   b. false

5. According to statistics, the most common injury site among children younger than 5 years old is the
   a. leg.  
   b. knee.  
   c. hand.  
   d. elbow.

6. According to statistics, the most frequent cause of injury among older adults is______________:
   a. a finger entrapment.  
   b. a comb plate entrapment.  
   c. a clothing grab.  
   d. a slip, trip, or fall.

7. Because an escalator is more of an “open air” mode of travel, there is usually more caller guesswork involved.
   a. true  
   b. false

8. The initial Key Questions on Protocol 56 address:
   a. passenger safety.  
   b. escalator location.  
   c. escalator’s on/off switch.  
   d. building management.

9. All persons caught in an escalator with unknown injuries are considered injured until proven otherwise. Such incidents should be coded as:
   a. 58-B-2.  
   b. 56-B-2.  
   c. 56-D-1.  
   d. 62-D-1.

10. After initiating dispatch, the EFD should give Post-Dispatch Instructions (PDIs) including how to turn off the escalator, if necessary, by pushing the emergency shut-off switch (button) at the top and/or bottom of the escalator.
    a. true  
    b. false
A tumble over his bicycle’s handlebars nearly 50 years ago was enough of a lesson in safety for Snell Memorial Foundation Executive Director Ed Becker.

“I landed on my lower face and messed up my teeth,” said Becker, who now crash-tests commercially developed helmets for the standard-setting company established in 1959, following the death of auto racer William “Pete” Snell. “I remember my mother crying while my father cleaned up my face. It was just a few years ago that I finally repaired the last of the damages with a dental implant to replace a broken front tooth.”

Becker was lucky. Although not wearing a helmet at the time of his accident, the foundation’s senior employee is a firm advocate of protective headgear for auto racing, motorcycling, equestrian sports, bicycling, skiing, rollerblading, skateboarding, snowboarding, and karting.

But the reason goes beyond the company he represents.

“Pete’s accident was survivable,” said Becker, who, prior to joining Snell in 1989, worked for the Naval Biodynamics Laboratory in New Orleans, La., studying human response to crash impact acceleration. “The helmet he was wearing failed to protect his head when the car flipped over.”

Given the chance today, the helmets that have been approved through Snell Memorial Foundation’s multi-faceted helmet testing procedures could have prevented the tragedy. Impact testing carried out in their accredited facility in California involves positioning the helmet on a metal head form (test dummy) and dropping it in a guided fall onto various steel test anvils. An accelerometer is placed inside the helmet to measure the peak G-force of the impact. If the peak acceleration imparted to the head form exceeds a certain threshold value (around 300 Gs, depending on standard and test type), the helmet is rejected. The manufacturer goes back to the drawing board or markets the helmet minus the Snell seal of approval.

Becker said testing doesn’t reproduce real-life situations. No humans or animals are used in the experiments, so there’s no guarantee that a human’s head will respond in the exact same way as the artificial head form. Snell’s testing is strictly a measurement of how a helmet should react in an incident to protect the wearer’s brain and skull.

“We call ourselves helmet critics,” he said. “We don’t design them. We test helmets for energy management.”
Physics of brain injury

Traumatic brain injury (TBI), a form of acquired brain injury, generally occurs when the skull collides with an object (or the ground), causing bleeding and damage to the impacted cells or piercing the skull and tearing brain tissue. The rapid deceleration the brain experiences when going from motion to no motion can also cause sheering of the vessels between the brain and skull.

In a sudden stop or slowing down, the protective layers beneath the skull help supply the force required to stop the brain’s motion, normally preventing the brain from colliding with the hard interior surface of the skull. However, these protective layers are not enough to prevent damage in incidents of extreme force. As the body comes to a sudden stop, the brain is still moving and can strike the skull, causing irreparable damage to the cells and tissues that make up the brain’s structures.

The results can be devastating.

Symptoms of a TBI can be mild, moderate, or severe depending on the extent of the damage to the brain. Disabilities resulting from a TBI depend upon the severity of the injury, the location of the injury, and the age and general health of the individual. Some common disabilities include problems with cognition, sensory processing, communication, and behavior or mental health (depression, anxiety, personality changes, and aggression). More serious head injuries may result in a stupor, coma, or vegetative state.

An ounce of prevention

One way to decrease the force of impact when a bicyclist hits his or her head in a fall is to increase the amount of time it takes for the impact to take place. That’s the mechanics behind quality bicycle helmet design.

In an accident, the head pushes against the helmet’s sturdy lining material that then compresses, lengthening the time the head and brain take to come to rest, avoiding sudden impact with the hard inner surface of the cranium and thereby reducing the damage. The brain may still make contact with the inside of the skull, but the force of the impact is reduced.

A helmet also provides a larger surface that absorbs a large portion of the impact energy that would otherwise go to the head. This also includes greater protection from rocks or sharp surfaces that must penetrate a thick protective liner before reaching the wearer’s skull inside the helmet. Instead of slicing straight through flesh and bone, the forces are blunted and redirected by the helmet’s reinforcements, according to the Snell Memorial Foundation.

“Of course speed, force, and other factors play into the impact,” said Debby Gerhardstein, executive director of the ThinkFirst National Injury Prevention Foundation, which provides evidence-based programs that aim to prevent brain, spinal, and other traumatic injuries. “The helmet can only do so much.”

Acknowledging the risk

TBI accounts for more than 50% of bicycle fatalities among children and youth below the age of 20 each year in the United States, according to “The Facts Hurt: A State-by-State Injury Prevention Policy Report,” released May 2012 by the nonprofit organization Trust for America’s Health. Nearly 63% of deaths to children are caused by a head injury resulting from a collision between bikes and cars, according to the same report.

However, these deaths and injuries have been widely proven as preventable. A frequently cited study from the New England Journal of Medicine found that helmet use reduced the risk of head injury by 85% and the risk of brain injury by as much as 88%.

Despite the evidence, only 21 states and Washington, D.C., currently require children and youth (generally 16 years of age or younger) to wear bicycle helmets. Only the Virgin Islands requires all bicyclists to wear helmets when riding.

States and localities with helmet laws issue fines for violating requirements. For example, Maine issues a warning for first offenders under the age of 16, and $25 fines for second and subsequent violations. Violation of the law in North Carolina carries a $10 fine, which may be waived with proof of helmet purchase.

All University of Florida employees who ride their personal or UF-owned motorcycles, scooters, bicycles, or Segway personal transporters for UF business purposes are required to wear a protective helmet that complies with specific appropriate safety standards. Violations can result in a suspension of riding privileges.

Not the end-all for brain injury

While helmets do absorb some of the force of an impact, they can only go so far in preventing brain injuries. Concussions sometimes do occur in sports in which helmets are worn. Also, helmets cannot protect against whiplash, a fast jerking of the head, which can cause concussions as well.
Becker, who hasn’t ridden much since the accident of his youth, believes bicyclists should wear helmets for their own protection, although he’s hesitant to demand mandatory helmet laws.

“You can’t go around twisting arms,” he said. “It’s my job to give sound advice to people who want to save their lives.”

Much like a seatbelt, however, a helmet is not the panacea to avoid injury from an accident. Yet, if injury does occur, the safety factor and prompt care can soften the blow.

Friends and fellow cyclists were doubtful Lane Phillips would be able to take care of himself following an accident in October 2006 when he was found unconscious lying on the side of the road. His bicycle, a few feet away, was badly damaged. Apparently, no one stayed at the scene following the incident. No one has come forward to confess or describe what happened to the well-known South Carolina cyclist.

Phillips, who never goes without wearing a helmet while cycling, was in a coma for two weeks and spent six months in the hospital. Few thought he would be able to return to his mechanic’s job at Outspokin Bicycles in Columbia, S.C., but Phillips fooled everyone. He not only returned to his job, but he is again cycling and often takes his story on the road as an advocate for biking safety. The accident is a fuzzy memory.

“It’s been a real miracle,” said Outspokin Owner Brian Curran. “An off-duty EMT happened to come by and that’s what saved Lane.”

**Protocol**

Today, if a cyclist took a spill similar to Becker’s flight over the handlebars, calltakers would use Protocol 30: Traumatic Injuries (Specific) to handle the emergency. The Academy does not offer a special protocol pathway for accidents involving falls from bicycles, as discussed in an “Ask The Doc” column published several years ago in *The Journal of Emergency Dispatch*. This is due to varied speeds and surroundings and a large spectrum of riders—from Tour de France cyclists to kids on tricycles, which cannot be jammed simply into a mechanism-of-injury format.

Protocol 30 asks for the status of the patient (whether unconscious, in arrest, or completely alert) and what part of the body was injured. These indicators of the patient’s condition and severity of injury are used to prioritize the response. Most commonly, bicycle accidents result in head, neck, back, and spinal injuries.

**Protocol 30** is also the appropriate choice when handling persons injured in a fall while rollerblading, skateboarding, or participating in a wide variety of other activities that result in traumatic injuries.

However, if the incident involves a cyclist, motorcyclist, or pedestrian in a collision with an automobile, Protocol 29: Traffic/Transportation Incidents is the appropriate choice to address scene safety issues and the potential need to block off traffic. The EMD should document the nature of the incident and the number of injured persons during Case Entry before even beginning Key Questions on Protocol 29. High mechanism incidents may include multiple patients and evidence to suggest serious injuries. Traumatic injuries may also be the result of an extreme or long fall, such as being thrown off a large horse or falling from a great height while hiking, repelling, cliff diving, or rock climbing; these cases are handled on Protocol 17: Falls. As stated in Rule 2, “The distance of the fall is a key factor in determining response.”

A traumatic injury may also include a penetrating object, which is handled on Protocol 27: Stab/Gunshot Wound/Penetrating Trauma. Patients with penetrating trauma may be handled with BLS units if necessary since transporting the patient immediately is preferable over waiting for paramedics; this is especially vital for patients afflicted with CENTRAL wounds who may require operative intervention and trauma center care. As applicable in all cases of TRAUMA, EMDs should provide instructions for controlling bleeding (X5) through direct pressure on the wound if there is evidence of visible fractured bone or foreign objects (Rule 4 on Protocol 27).

**Bystander care**

As always, the first priority in handling trauma patients is to find out exactly what happened and then address the consciousness and breathing status of the patient. If the patient is not alert with INEFFEVTIVE breathing, the EMD should protect life over limb and instruct the caller to open the airway, as directed. If the patient is breathing and PAIs are not necessary, the EMD may enhance the PDIIs by encouraging the patient not to move; this is especially necessary due to impending danger.

Good Samaritan laws prevent bystanders from being sued if they end up causing further injury to the patients in an effort to help them. However, the dispatcher should not advise bystanders to act against safety precautions nor do these laws create an obligation to help victims of an accident.

For example, a bystander has no obligation to move an injured bicyclist out of the way of traffic, but if the bystander chooses to do so without dispatcher consent and cracks one of the patient’s ribs in the process, a Good Samaritan law would prevent the patient from suing the bystander for causing that additional injury.

Protection for a Good Samaritan ends when professional medical assistance arrives. Good Samaritan laws will not protect him or her from liability for interfering with professional treatment efforts.

**Sources**


CDE-Quiz Medical

Answers to the CDE quiz are found in the article “Wind in Your Hair,” which starts on page 34.
Take this quiz for 1.0 CDE unit.

1. As the body comes to a sudden stop, the brain:
   a. is still moving.
   b. comes to a stop.

2. Disabilities resulting from a traumatic brain injury (TBI) depend upon the:
   a. severity of the injury.
   b. location of the injury.
   c. age and general health of the individual.
   d. all of the above

3. One way to decrease the force of impact when a bicyclist hits his or her head in a fall is to increase the amount of time it takes for the impact to take place.
   a. true
   b. false

4. Helmet use can reduce head injury by ____%.
   a. 10
   b. 25
   c. 50
   d. 85

5. Currently, what are the U.S. statistics regarding requirements for children and youth (generally 16 years of age or younger) to wear bicycle helmets?
   a. No state has a mandatory requirement for wearing bicycle helmets.
   b. Every state has a mandatory requirement for children and youth to wear bicycle helmets.
   c. Only 21 states and Washington, D.C., require children and youth to wear bicycle helmets.
   d. Close to 75% of all states and Washington, D.C., require bicycle helmets for children, youth, and adults.

6. Today, if a cyclist took a spill similar to Ed Becker’s flight over the handlebars, which Chief Complaint Protocol would calltakers use to handle the emergency?
   a. 17: Falls
   b. 27: Stab/Gunshot/Penetrating Trauma
   c. 29: Traffic/Transportation Incidents
   d. 30: Traumatic Injuries (Specific)

7. Which protocol would be the appropriate choice when handling a call involving an accident between an auto and a bicycle?
   a. 17: Falls
   b. 27: Stab/Gunshot/Penetrating Trauma
   c. 29: Traffic/Transportation Incidents
   d. 30: Traumatic Injuries (Specific)

8. When handling an accident between an auto and a bicycle, the EMD should document the nature of the incident and the number of injured persons during Case Entry before even beginning Key Questions on Protocol 29: Traffic/Transportation Incidents.
   a. true
   b. false

9. If the patient is breathing and PAs are not necessary, PDIs may be enhanced by encouraging the patient:
   a. not to move.
   b. to move.

10. In many cases, moving the patient can increase the severity of the injuries, though occasionally bystanders may deem it necessary due to impending danger.
    a. true
    b. false
A Family Affair
Dispatcher follows parents’ footsteps

For Heather Baker, emergency dispatching is a family affair.

The 35-year-old EMD from Baltimore County (Md.) 9-1-1 started in the profession 14 years ago and her mother, Catherine “Kitty” Rizza, has been the voice behind response at the same center since 1986. Her father, Ralph Rizza, also had invested 14 years in dispatch prior to his death in January 2006.

Despite the combined 28 years of 9-1-1 during much of her childhood, Baker didn’t grow up planning a career in dispatch.

“I wasn’t sure what I wanted to do,” she said. “But mom had always been working here and it was something she enjoyed. She never complained.”

Baker decided to give dispatch a shot and, like her mom, found the job to her liking. No day’s ever the same and she prefers staying behind the scenes to the medical, fire, and police responders she sends to emergencies.

“We never get to meet the people we help, but that hasn’t really bothered me,” she said. “It’s all part of the job.”

Baker’s under-the-radar experience changed in March when 4-year-old Riley Stunkel called 9-1-1 to report that her grandfather “Poppy” had collapsed. Riley’s 6-year-old sister, Emily, took over from there, providing Baker with all the right information.

“They did a great job,” Baker said. “They told me what happened and followed my instructions. They unlocked the door to let the police in. I wish every caller could be like them.”

An ambulance rushed “Poppy” to the hospital and later transported him to Shock Trauma. He was home two weeks later.

The call that undoubtedly helped save their grandfather’s life has received local and national attention. In May, Baltimore County Executive Kevin Kamenetz honored the two girls and Baker and the trio also received recognition from the National 9-1-1 Education Coalition. In April, 9-1-1 for Kids presented them with hero awards at the Navigator conference.

Baker said the attention has been exciting. The center was recognized for doing something good and she was able to meet someone she assisted over the phone.

“Nice to put a face to the names,” Baker said.

This is not the first time Baker has been noticed for her work.

In 2008, she was named Baltimore County 9-1-1 Operator of the Year for her persistence in pinpointing a domestic violence situation. A misdirected Voice over Internet Protocol (VoIP) call came in from Texas and Baker, in Baltimore, was able to give police the information needed through the area’s communications center. She has also assisted in the delivery of babies and provided CPR instructions to bystanders calling in for cardiac arrest patients.

“We’re a very busy center,” she said.

Baltimore County 9-1-1 receives more than 2,000 calls a day. In February, the county announced work was complete on a $57.6 million overhaul of the county’s public safety radio system and $18.5 million in upgrades to the county’s 9-1-1 center in the Circuit Court Building.
Perfect Performance
Baby delivery in harmony with constant protocol practice

Little did a neighbor know what was in store when flagged down during her morning walk on May 21, 2011.
It wasn’t to borrow a cup of sugar.
“I can’t believe we just delivered a baby,” she cried into the phone 15 minutes later to EMD William “Bill” Trimmer, senior telecommunications, Nash County (N.C.) Emergency Services, 9-1-1 Division. “Oh Lord.”

In the quarter hour drama beginning at 10:36 a.m., a neighbor deftly switched directions to deliver a healthy baby boy on the living room couch in a home she wasn’t the least bit familiar with. She scrambled for towels, a shoelace, and blankets while, at the same time, holding her neighbor’s other child and delivering a baby.

“The neighbor got a little excited when she realized the baby was coming,” Trimmer said. “But other than that, she did a really good job.”
The neighbor wasn’t the only one garnering praise that day.

“The call was one of a kind,” said Mark Reavis, Nash County 9-1-1 Division QA and training officer. “Bill navigated perfectly and the outcome was a live child.”

Although Reavis wasn’t in the room during the call, Trimmer’s immediate supervisor knew a perfect call when he heard one. He rushed the tape back to Reavis’ office and Reavis lost no time critiquing the call using AQUA quality assurance software.

“He scored a perfect 100,” Reavis said. “It’s rare that anyone scores a perfect 100. Bill followed the protocol and each and every instruction verbatim.”

Trimmer is used to scoring on the high side. Overall, the center scored 98.13% for the 1,000 calls Reavis reviewed during the six-month period between Jan. 1, 2012, and June 12, 2012. In 2011, Trimmer had inched over the bar, coming in first of 30 full- and part-time division members. His score: 99.66%.

The score is hardly an accident. Reavis holds a four-hour CDE class each month, and it’s a class no one even thinks of skipping or calling in sick to avoid. Trimmer studies the protocols—fire, police, and medical—outside of class like someone on a weight loss diet might count calories.

“It’s all the time,” Trimmer said. “The shift critiques each other’s calls and we practice when we have the time.”

Sometimes, the protocols are so automatic that he finds himself asking the Case Entry and Key Questions when he’s the guy on the other end of the radio responding to incidents while working his part-time firefighting job.
“People deserve the best we can do, and that’s what we give them,” Trimmer said. “We’re ready for their call.”

Fortunately, Trimmer practices all the protocols, and not just the protocols referred to on a more frequent basis. While the division does receive calls requiring Protocol 24: Pregnancy/Childbirth/Miscarriage, it isn’t often a full delivery takes place before paramedics arrive on scene and the May 21 arrival was Trimmer’s first-ever over-the-phone delivery.

Aside from a potentially threatening emergency during delivery—the umbilical cord was wrapped loosely around the baby’s neck but quickly removed—Trimmer said the call went exactly the way anyone would want. And he didn’t ask for a review like he sometimes does to make sure he’s on track.

“Bill does an incredible job,” Reavis said. “I wanted to make sure he was recognized for an outstanding performance.”
Calm During The Storm
Dispatcher keeps dad focused on delivery

EMD Derrick Leonard had a lot on his line during the last hour of his 24-hour shift at the Queen Anne's County Department of Emergency Services in Centreville, Md.

The early morning caller was stressed, the person the caller was trying to help wasn’t cooperating to the extent the caller wanted, and a third party involved could have cared less about anyone else’s issue.

“I had a tough time trying to calm him [the caller] down,” said Leonard, who has been with the center going on six years. “He was frustrated and really needed extra reassurance.”

Leonard wasn’t exaggerating. Although the couple had been sent home from the hospital earlier that day for a case of Braxton Hicks, it took Leonard less than a second to realize that there was nothing false about the labor this time.

“I need you all to get out here real quick, as soon as you can,” the caller tells Leonard. “I don’t know what’s going on. Her water broke.”

The next almost 12 minutes shortly after 6 a.m. on Nov. 6, 2011, were a ride on the Wild Mouse roller coaster, at least for the caller and mom. She wails, pushes, and rolls on her side and on her back again. The caller alternately nearly loses his grip, asks mom questions she can’t answer, and attempts to calm her while Leonard repeats Pre-Arrival Instructions (PAIs) and reassures dad that he can do this.

“You’re doing good, you’re doing fine,” Leonard tells the caller four minutes into the call and still minutes away from the actual delivery. “There’s nothing you have to do right now but keep her calm.”

Six minutes and two seconds into the call and dad can hardly hear Leonard over the cries of pain and fear. “I’ve never been through anything like this before,” the caller tells Leonard. “It’s real crazy right now. She’s not listening to me.”

A minute later and the baby’s head crowns. “Oh my God,” the overwhelmed dad says. “It’s a head. Oh dude. Oh man. She is coming out.”

Leonard agrees the situation is overwhelming. “It’s a little scary,” he said. “But I need you to pay attention. Sir, I need you to listen to me because I will tell you what to do.”

Two minutes and 30 seconds later, the baby is wrapped in a blanket and the caller has used a shoelace to tie off the umbilical cord.

“They were transported without further delay,” said Sarah Harrison, the center’s training officer and public information officer. “Derrick did a fabulous job.”

Leonard credits the protocol—Queen Anne’s uses all three—and the extensive and ongoing training required and ability to multitask for getting him through the first full delivery he’s handled over the phone. He was also relieved “big time” when he heard the baby let out a first cry.

“I knew the paramedics would be there soon but I didn’t know it (the delivery) would happen so fast,” he said. “I had the protocols and did the best that I could.”

Leonard was honored with the EMD Provider of the Year Award given to him by the Maryland Institute for Emergency Medical Services Systems at the annual EMS award ceremony held in May 2012. But he certainly doesn’t revel in the glory.

“It was great to receive the award and bring a life into the world,” he said. “But the call shows only a small portion of what everyone here does every day.”

Maryland’s Finest

The Next Breath
Desperation haunts near choking survival victim

Editor’s Note: Kate Dernocoeur is no stranger to dangerous and frightening situations, but this story, she said, reflects her most frightening experience ever. Her survival wasn’t a sure thing for several minutes, and she evokes that desperation in her story.

One minute you’re in the kitchen, at maybe 9:00, 9:30 p.m., after you get home from school, famished. The under-counter TV is on while the water heats for tea. Your thoughts are maybe on the events of the day, maybe what you need to remember for tomorrow. You don’t really notice.

You pop open the fridge looking for something, anything, to eat. Something quick, to tide you over til morning. You see the leftover couscous still in the cooking pan, yeah, that’d be good. You reach for a fork and
take a bite. You're just doing what you always do, grabbing a bite before heading upstairs.

One minute, it's all everyday, no big deal.

Then you realize something is not right. Suddenly, nothing matters—not the TV, not the fact that you've been lazy about your diet lately, not the inbox of e-mails upstairs. What suddenly matters is this: You can't breathe.

This has a name. It is an airway obstruction. You have a full airway obstruction. What the heck? From a quick, casual bite of couscous? One minute you're going for a forkful of the stuff, and the next, you can neither breathe out nor breathe in. You try. You cannot. The brieziness of two moments ago has died abruptly. The altered world threatens you as surely as a snake coiled and rattling—except you can't even make a sound.

With breathing comes so much: shouting joy for a beautiful day, speaking one's mind, and whispering, "I love you" to a sleeping child.

Without it, you feel like you are looking at the kitchen through the wrong end of the binoculars. Without it, the lights are too bright, the TV too loud, the degree of instant desperation too shocking.

You know the dynamics here; you've studied airways, opened many in your years as a paramedic. It's the first, most important thing in the flowchart of resuscitation: A-B-Cs. Airway, Breathing, Circulation.

This patient—YOU—does not have an airway. God!

A flood of neon-lit thoughts pour in. Can you make it over to the neighbor's condo? What if they aren't home? If you go out there, you'll only have enough residual to try knocking on one door along the row. Can you risk the energy to try? Would they even try, and you might only have one chance. How many times have you practiced the logarithm? Thousands?

Open the airway. I'm trying. Got to get a breath. Got to get a breath. There's no airway. Heimlich yourself, go ahead. You've read the stories. It's Reader's Digest stuff, but people have done it; they've saved their own lives.

You eye the kitchen counter. Oddly, you recall installing it in the fall, admiring its pretty pattern. You step back from it, its corners beginning to dance across the scene. You lean over the sink, drooling. There's a chance this might not go well.

You step back, dizzy. Position the hand again, habit entrenched from training. Maybe the in-and-up angle wasn't quite right. Maybe you didn't give it enough oomph. But that first time was surprisingly painful. Never mind. Do it again! You have to get that champagne cork thing going.

You ram into the counter again, hard, really, really hard, and it really, really hurts. You kinda collapse at the knees to achieve that drop angle, so the lungs have to compress.

"Uh!" There it is again, a sort-of grunt. You'll take it. The drool is overwhelming. You lean over the sink, spit, spit again, and you tentatively try inhaling. Not too fast, easy does it. Alarm pulses through you still, but you're hearing the high-pitched evidence of full-obstruction-turned-partial. Maybe, just maybe, this could end better than you were beginning to imagine.

You lean, spitting over the sink. The image of a filled balloon, opening pinched—that sound—comes to mind. You draw in with careful urgency. Please don't close off ever again, please God let me breathe. Yes. Oxygen. Your heart is a drum accompanying the discord. Your belly sucks air, pulling hard, managing to deliver, little by little, some blessed relief. You manage a few throat-clearing coughs. The lifeline is the size of a cocktail straw, but it's enough for now. Head bowed, still drooling, you breathe. You breathe. You breathe. 

Breathing Lessons Kate Demnoucours describes the pain of near choking and the joy of coming back for air during an otherwise ordinary day.
EMS Triage
It’s about time, it’s about place, and it’s about protocol

Audrey Fraizer

If a call came in from a 13-year-old girl calmly reporting a teenage boy trying to break into her house, how would you dispatch the incident?

1. A disturbance or nuisance call
2. A stalking or harassment call

Without more information, you might classify the call as either of the above and unwittingly jeopardize the safety of the caller by sending an ALPHA (whenever) or BRAVO (when available) response. Of course, in this era of emergency dispatch, the calltaker would ask several more appropriate questions. In the case of a suspected disturbance/nuisance classification (Police Protocol 113), a “yes” to Key Question 5 could make the difference between life and death in situations like these. It’s a question that could have saved the life of a 13-year-old girl police found dead 40 minutes after she made this very call.

The call had been classified as a “routine juvenile disturbance.” It was a simple human error made in the interest of appropriate resource allocation, in the judgment of James E. George, M.D., J.D., in a three-page article that comprised the major editorial content of a 1981 edition of the EMT Legal Bulletin.

Dr. George, senior editor for the Bulletin, did not lay sole fault on either the dispatcher or responding officers. In his opinion, the tragic outcome of the break-in was a consequence of an ineffective EMS triage process that, ultimately, left the door wide open for error, and the dispatcher potentially liable for negligence.

Errors may stem from several sources, Dr. George stated in the article: “The dispatchers may underestimate the urgency of a situation or err in gathering or recording essential information. Should harm result to a patient because of a dispatching error, the dispatcher as well as his employer may be held liable for negligence.”

Dr. George was a prolific writer on all things medico-legal. Although he had no direct training, education, or experience in the evolving science of emergency medical dispatching, he had a keen—almost prescient, predictive—idea of how to reduce a dispatcher’s risk of medical and legal liability. And it wasn’t a question of “if” but “when.”

According to Dr. George, “Where serious risks can be reasonably anticipated the law requires that precaution be taken.” His advice regarding the minimal safeguards to prevent or reduce error of the kind resulting in the death of the 13-year-old girl included:

• Confirmation of the caller’s address and phone number
• Tape-recording calls and responses to make sure that the information written down by the dispatcher is the information actually received

A third component missing from the list was perhaps the most important. While dispatchers often engaged in some form of evaluation of incoming calls, most centers practiced a sort of flying-by-the-seat-of-their-pants system to calltaking. Few had clearly articulated written policy in support of telephone screening of emergency calls, coupled with sound guidelines and protocols that, according to Dr. George, “would provide a ray of legal light in an otherwise murky area of heavy potential liability.”

At the same time, Dr. George stated, “Dispatchers had to avoid the appearance of responding to or categorizing emergency calls in a haphazard or arbitrary manner.” Dispatchers needed “reasonable guidelines” that would, among other goals, provide a
structure to respond based on fact and not gut reaction. The ideal system would also discourage unnecessary calls and curb the abuse of the EMS system.

A unique example of such a system existed in Salt Lake City, according to Dr. George. The Salt Lake City Fire Department communications center was the first in the world to use the Priority Dispatch System™ for emergency triage and the Salt Lake City Council was a forerunner in controlling emergency triage by ordinance. Callers could be fined up to $299 or spend up to six months in jail for requesting emergency medical services when no real emergency existed. For example, the ordinance defined nonemergency situations to include alcohol intoxication, minor lacerations, hives without difficulty breathing, non life-threatening overdoses, and many other minor situations.

This ordinance was viewed as one way to solve the “uncomfortable dilemma” facing EMS—providing prompt and appropriate care in the face of rising costs and demands—and curtail abuse by callers demanding services for nonurgent situations.

“I applauded what Salt Lake was doing,” Dr. George said. “The city and Jeff’s protocol led to tremendous strides in EMS.”

Dr. George had been practicing emergency medicine for close to 12 years when he wrote the article. Thirty-two years later, he maintains his medical and legal licenses and serves as chairman of Emergency Medicine at Underwood Memorial Hospital in Woodbury, N.J., as well as president of Team Health East, also in Woodbury.

While he and Dr. Clawson haven’t crossed paths for years, he still remembers the intensity and enthusiasm Dr. Clawson brought to all matters relating to emergency medical dispatch.

“He introduced an interesting concept,” Dr. George said. “Many years back, we would run into each other at conferences and it was about the same time we started to hear good stories about the work he was doing. His system for emergency dispatching made perfect sense to me.”

The Salt Lake City ordinance has remained on the books and has since been revised:

11.04.130: EMERGENCY SERVICES; UNLAWFUL TO REQUEST SERVICE WHEN:

“Any person who shall request the city fire department emergency medical system to respond unnecessarily, falsely, capriciously or for nonemergency situations shall be guilty of a misdemeanor.

B. For the purpose of this section, nonemergency situations shall be the following: alcohol intoxication, minor lacerations, minor contusions and sprains, minor illnesses, insect and animal bites not deemed emergencies, rashes, skin disorders, hives without dyspnea (difficulty of breathing), home delivery to avoid doctor and hospital services, venereal disease, patients seeking nonemergency transportation, forehead and scalp lacerations only, cold syndrome, sore throat, earache, hiccough, nervousness, anxiety, toothache, minor bruises, nonlife threatening overdoses, nonlife threatening self-inflicted injuries. (1987 Code: prior code § 14-2-8.1)”

A class C misdemeanor conviction can result in 90 days in jail and up to $1,500 in fines and surcharge.