Creating Time Standards That Work

Jeff J. Clauison, MD, Board of Certification Chair
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One of the most controversial challenges to EMDS today is the pressure to be fast—very fast—in their call processing times. We’ve all heard “the clock is ticking and patients are dying or going downhill with every second that passes”...but are they?

As Brian Dale writes in this issue’s CDE article (page 2), taking the time to get the chief complaint right the first time is critical to giving the patient the best possible care. It does no good to be quick but wrong. In terms of patient outcome, the truth is the vast majority of calls are not time sensitive. Inflexible and arbitrary response time standards for EMS agencies (that further pressure the communication center) are not based on research related to patient outcome but largely on politics and perceptions.

Preparing for the New Millennium

Alexander Kuehl, MD, MPH, FACS, FACEP, President NAEMD

Welcome to the first edition of the National EMD Journal. You’ll note numerous additions and improvements from the old Dispatch! format. Foremost is an emphasis on CDE, call center operations, and research. The mission of the Academy is to advance the profession and the National EMD Journal will become an important tool in that endeavor. The Journal will be growing and evolving over the next year and we look forward to receiving your comments, suggestions, and contributions.

One of the great honors of serving as your President has been to preside over the Annual Leaders Summit at the Navigator Conference. The Academy is especially proud to host the NAEMSP Medical Director’s Course and the NAEMSP Research Workshop as pre-conference events. This will attract a gathering of many of the most innovative and challenging EMS/EMD leaders in the country including Dr. Joe Ryan, Dr. Jeff Clauison, Dr. Harry Baker, Larry Anderson, Steve Forry, Jerry Overton, Mike Taiman, Carl VanCott, Dr. Paul Pepe, Mic Gunderson, Dr. Bob Bass and Dr. Ray Fowler. Think of the opportunities for interaction which will emerge!

Many of the workshop participants and faculty will join us on September 1st in the 1999 EMS/EMD Futures Summit. If you would like to participate in shaping the future of prehospital care for the next century—or if you’ve been searching for a new discussion forum to recapture the excitement and optimism of the “Sand Key” conferences—this is it! We’ll see you in San Antonio. I promise that you will remember the Alamo! 😎
Getting It Right the First Time
Better Use of the Case Entry Protocol

Field providers, like EMDs, gather critical information about the patient in the first moments of contact. The EMS provider’s initial assessment (or primary survey) includes identifying the chief complaint along with age, status of consciousness and breathing. They must gain control of the scene to ensure safety for all involved as well as determine what resources are going to be needed to facilitate proper care. All subsequent decisions flow from this initial assessment, which makes it exceedingly important to get it right the first time. In a similar way, EMDs perform the critical assessment using the Case Entry Protocol that address the “four commandments” of medical dispatch. And as with Field providers, getting it right is paramount to providing the best possible response and patient care information. This article reviews why and how the “four commandments” lead the EMD to select the most appropriate chief complaint, especially when multiple options seem to be available.

Location, Location, Location

In retail business, the adage goes, the three most important criteria for success are “location, location, location.” The same can be said for getting a 9-1-1 call off to the right start. The incident location and phone number from which the person is calling has to come first. Traditionally, dispatchers have put the callers in charge by first asking “9-1-1, what is your emergency?” But at the onset of the call, we don’t care what the emergency is as much as where it is. The kind of emergency assistance required (fire, police, or EMS) to handle the situation or which dispatch discipline to use can be decided after we know where the emergency is and how we can get in contact with the caller. Callers seem to expect us to ask them what their emergency is, and when we ask for the “where” the caller becomes focused on the interrogation process this puts the dispatcher in control early on.

By asking callers “what’s the problem, tell me exactly what happened,” we get a more concise picture of events that occurred, not just the caller’s perception of the problem. This small change in dialogue assists us in providing proper, appropriate Dispatch Life Support (DLS) to patients in critical conditions. It can also decrease the amount of superfluous information callers tend to give us when offered the open door of “What is your emergency?” This has been clearly demonstrated in reviews of agencies using this approach.

To complete the four commandments, we next ask the patient’s age or approximate age if unsure (if unsure, adults will be considered to be > 35 years due to possible cardiac involvement). Our next step is to determine if the patient is conscious: yes, no or unknown and breathing: yes, no, unknown or unsure. Our greatest concern during this phase of the evaluation lies in the EMD’s ability to accurately assess the status of a patient’s breathing. In an article published in the Annals of Emergency Medicine (Clark, Larsen, et. al., 1992) the authors found that 40% of out-of-hospital cardiac arrests were associated with agonal breathing. In 36% of these cases, multiple descriptions of agonal breathing were offered. The patient was said to be barely breathing in 33 cases (18%), having “heavy” or “labored breathing” in 18 cases (10%), “problems breathing” in 16 cases (9%), “noisy breathing” in 15 cases (8%), and “gasping” in 12 cases (7%). Terms such as snorting, gurgling, moaning and/or groaning described the remaining calls. Agonal respirations could actually be heard on the tape in 23 cases (13%) and EMS field responders noted the presence of agonal respiratory activity on incident reports in 60 cases (34%). Among the 196 witnessed arrests, 55% had agonal respirations.

The presence of agonal respirations has a high correlation with increased survivability since agonal activity occurs early and a short down time is suggested. The shorter the down time of arrest, the less likely brain damage has occurred. With this evidence, it is critical EMDs be alert for this condition. In the conditions listed above, the call should be coded a 9-D-1 and an immediate maximum res-pose sent out from Case Entry. By doing so, we decrease our overall system response to life crisis situations and increase the possibility for improved patient outcomes. When EMDs code the call a 9-D-1, they are required to ask fewer questions and are then able to start critical patient interventions sooner.

Evaluating the caller’s given chief complaint with answers obtained to the conscious and breathing questions assists the EMD in choosing one of the 32 chief complaints. Appropriate DLS relies on EMDs
getting it right the first time. To quote Dr. Jeff Clawson, “If you get on the wrong track at the central train station, no matter how straight or fast you travel, you still end up in the wrong place.”

The message here is clear. EMDs need a clear understanding of how AMPDS protocols function in scene safety, resource allocation, and patient care dimensions. For example, choosing Protocol 21 (hemorrhage/laceration) for a person who has been shot does not ensure that scene safety issues are addressed. The response configuration may also be skewed due to a lack of mechanism evaluation from Protocol 21. It does not mandate law enforcement response, and also fails to advise the caller to remain safe.

If the reporting party indicates a patient is unconscious and “gasping” for breath, a tendency is for the EMD to go to Protocol 31 (Unconscious/Paralyzing). A Medical Priority Consultants study in 1998 showed that in one center when an EMD codes this type of call as a 31-D-1, 30% of these patients were found to be in cardiac arrest upon EMS arrival. While response levels will be Delta from Protocol 9 (cardiac arrest), 6 (Breathing Problems), or 31 (Unconscious/Patient), interrogation processes are lengthier with the latter two and it will take longer to get to Pre-Arrival Instructions (PAIs).

**Safety First**

There are several conditions in which caution should be exercised when choosing a chief complaint even if consciousness and breathing status are suspect. These are, Protocol 8 (Carbon Monoxide/Inhalation/Hazardous Materials) and 15 (Electrocution). These both indicate dangers and safety issues must be addressed prior to DLS. Even if the patient is at immediate life-risk, if they are still in a dangerous environment, callers are told to stay back. Since these dangers are unseen, we may put our responders into an unstable or dangerous environment without warning. Given that the First Law of Responders clearly states “Don’t take more victims to the scene” (Protocol 15 A1) this action would be in direct violation of DLS principles. Other situations pose safety risks and even though these do not typically pose an unknown threat, they should be closely evaluated. They include Protocol 3 (Animal attack), 4 (Assault/Rape), 7 (Burns), 14 (Swift Water Drowning), and 27 (Stab/Gunshot).

EMDs dealing with patients who are reported unconscious and not breathing have three chief complaints to handle these situations. While trying to pigeonhole all non-breathing patients won’t always work, Protocols 9 (cardiac arrest), 11 (choking), and 12 (that’s right, seizures) produce the desired response in most cases. Why would we go to seizures when a caller reports that this type of patient to be non-breathing? The answer has two important parts. First, a patient actively seizing will typically be reported as not breathing. Since patients in Grand-Mal (clinically-tonic) seizures tend to stop breathing (or appear apneic) during the seizure (Protocol 12 Rule and Axiom 2). Second, one of our primary DLS concerns is, “Above all, do no harm.” Patients who are seizing do not need CPR until seizing has stopped and the caller has verified breathing to be absent (Protocol 12, Rule 2).

This is one of the ingenious nuances of the AMPDS. It is generally accepted that the majority of Grand-Mal seizures last only 35-45 seconds (Protocol 12, Axiom 4). Given this, after completing Case Entry and Key Questions 1-6 on Protocol 12, the seizure activity should have stopped. Key Question 7 then verifies this, and if the answer is yes, we can now verify the patients’ breathing status. If the answer to this is no, we have obtained the proper determinant code (Delta 1) and question 8 becomes non-applicable (it is addressed first on PDI after seizure activity stops. Protocol 12 PDI a).

Many EMDs question the validity of going to Protocol 9 (cardiac arrest) prior to moving to Pre-Arrival Instructions (Protocols A, B, and C) to start providing DLS. This Bridge protocol is a critical step that cannot be ignored. History has shown us that when EMDs get in a hurry to “help” callers in crisis they miss critical steps that can affect patient outcomes. It is not uncommon for EMDs to go to PAI Protocols A, B, or C when callers report a patient is “turning blue” but the EMD does not know why. If EMDs begin DLS and fail to find out that a patient has chokes, appropriate procedures (Heimlich or chest thrusts in infants) are delayed or may not be performed. If the patient is a child or infant, choking is more likely than a heart attack or stroke as a cause of the cyanosis.

Another event that occurs in children that mimics a cardiac arrest for the same reasons mentioned earlier, are febrile seizures. According to Dr. Clawson, this event is a leading cause for individuals calling in cardiac arrests on infants. Careful attention must be made to identifying what haws happened prior to initiating CPR instructions on these patients. Remember, the incidence of mortality associated with febrile seizures is virtually zero. According to the author, the only danger for these patients who have febrile seizures is they are at risk to have another one during their lifetime. These issues underscore the importance of proper caller interrogation prior to initiating invasive procedures.
With these basics understood, we will now discuss how best to choose a correct chief complaint. Trauma and medical incidents will be addressed separately. The AMPDS protocols define trauma as a physical injury or wound caused by an external force through accident or violence (Protocol 22, A.1.). So in addition to looking for the presence of priority symptoms (chest pain, difficulty breathing, serious hemorrhage, or a change in the patients level of consciousness) AMPDS prioritizes the injured area into dangerous, possibly dangerous, or non-dangerous injury. This definition creates redundancy and ensures appropriate, consistent, response levels from a variety of chief complaints.

We frequently get calls for patients who have fallen and have received an orthopedic injury. Both patients may have broken legs, but there is a significant difference, in potential, between the kid who fell off his bike and the kid who fell off his roof. Protocol 30 (traumatic injuries specific) can safely evaluate the first patient as it specifically addresses the injury sustained and the Key Questions are better suited for this type of incident. Protocol 17 (falls/back injuries—traumatic) better evaluates the second patient for mechanism of injury (MOI) and also addresses why the person fell (Protocol 17, Rule 1). There are several benefits for using Protocol 30 for isolated orthopedic injuries. First, it advises the caller not to attempt to splint injuries prior to the arrival of EMS units, and second, it eliminates questions 2 and 3 on Protocol 17, which are awkward in the majority of cases. (An exception to this would be the elderly patient who has had a ground level fall with a caller reporting a probable fractured hip. In this patient we also want to know why the patient has fallen (fainting), so Protocol 17 would be more appropriate.)

If a caller reports a patient complaining of a broken nose from an auto-pedestrian accident, Protocol 30 does not address the method of injury (MOI), thus Protocol 29 (Traffic Accidents) is more appropriate. When a caller reports that someone has been burned with electricity, the appropriate chief complaint is 15 (Electrocution). From this protocol all applicable safety questions are asked first. Examine Protocol 7 (Burns/Explosion) and evaluate what EMDs are instructed to do for a person who has been burned by electricity. Safety issues are also addressed on Protocols 3 (Animal Bite/Attack), 4 (Assault/Rape), 23 (Overdose), 25 (Psychiatric/Suicide Attempt), and 27 (Stab/Gunshot Wound).

AMPDS defines a medical incident as a patient suffering from an illness or other biological malady (Protocol 22, A.1.). When choosing a chief complaint for these calls, there are several factors to consider. The EMD will focus on the nature of illness (NOI) and search for the presence of the four Priority Symptoms (chest pain, difficulty breathing, change in the level of consciousness, and serious hemorrhage). Whenever multiple descriptions (complaints) are given, EMDs will choose one that points to a priority complaint or symptom.

If the caller states a patient is having “Abdominal chest pain,” Protocol 10 (Chest Pain), is most appropriate. If the patient is a 28-year-old female who has abdominal pain, and has passed out, Protocol 31 (Unconscious/Fainting) is better suited to handle the emergency. What if a caller states that a person has had a “stroke” and is unconscious, which protocol is better, Protocol 28 (Stroke/CVA) or 31 (Unconsciousness/Fainting)? In this case, Protocol 31 is absolutely appropriate. A diagnosis of stroke in an unconscious person takes the knowledge of a skilled clinician, something the average 9-1-1 caller lacks. Usually, the reason callers report stroke is due to symptoms such as numbness, paralysis, or the inability to speak or move. If a person is unconscious, the caller will not have these telltale signs to assist in the diagnosis. In addition to clinical problems, there is not an unconscious determinant level on Protocol 28. The maximum response from Protocol 28 (Stroke/CVA) is Charlie and an unconscious person needs the closest available EMS unit to respond.

Sometimes the caller indicates that an elderly patient is “acting funny” or “strange.” The tendency is for EMD’s (especially medically trained EMDs) to go to Protocol 28 (Stroke/CVA) as this is the most likely cause of the erratic behavior. This is not appropriate, as there are a multitude of pathological events that cause altered mental status (Protocol 25, Additional Information). Protocol 26 (Sick Person) is ideal for these scenarios, as it does not try to make a specific diagnosis. The Shunt protocol simply searches for priority symptoms and moves the EMD to the appropriate chief complaint if found. In addition, Key Question 3 (Tell me, why do you think it is a stroke?) has a tendency to excite 9-1-1 callers who never indicated stroke during Case Entry interrogation.

EMDs must apply their entire active listening and reasoning skills to accurately intervene during crisis situations. The Case Entry Protocol is the dispatcher’s best tool in providing the right care, at the right time, in a manner which is safe and effective for everyone involved. Communication experts have said that callers make vital first impressions of your abilities in the first seconds of a 9-1-1 call. Adherence to, and mastery of this assessment tool tells callers that you are a EMS professional who is there to mitigate an emergency in a manner that is safe, effective, and efficient. The fourth law of medical dispatch states:

“The science of medical dispatch requires non-discretionary compliance to protocol”

“While the typical chief complaints given by callers are simple and straightforward, an EMD must have an accurate, working knowledge of how the AMPDS works best in different situations, and remember safety comes first: Above all, do no harm.”

People rely on us to control their environment when no one else can. For the remote clinician, the AMPDS is the best tool to bring reason from chaos. It is a remarkable tool that does not forget, even in the most stressful situations.

**BRIAN A. DALE, EMT-P, EMD INSTRUCTOR:** Brian is a certified EMD Instructor and Senior National Faculty member for the Academy. He is the Fire Captain responsible for the QIU at Salt Lake City Fire Department, an Accredited Center of Excellence. Brian is also a member of the Academy’s Council of Standards and Curriculum Board. Always a popular lecturer, He will be presenting his ideas for effective MPDS use this year at Navigator.
CDE Quiz Worksheet

"Getting It Right the First Time: Better Use of the Case Entry Protocol"

Study the CDE article "Getting It Right the First Time--Better Use of the Case Entry Protocol" found on page 2 of this issue of The National EMD Journal.

To be considered for CDE credit, this answer sheet must be received no later than 10/31/99. This complete exercise, along with a passing score is worth 1.0 CDE unit toward fulfillment of the Academy's CDE requirements (up to 4 hours per year).

Please mark your response on the answer sheet located at right and mail it in with your processing fee to receive credit. Please retain your CDE certificate to be submitted to the Academy with your application when you re-apply.

1. Your caller reports that "My son fell from his bike and broke his leg." You have a 14-year-old child who is conscious and breathing. What is the most appropriate chief complaint?

2. Your caller reports that something is wrong with their father. The patient is 61-years-old, and even though he is unconscious, he is breathing. Given this information, which chief complaint is most appropriate?
   - A Sick Person — 26
   - B Unconsciousness/Fainting — 31
   - C Stroke/CVA — 28
   - D Any of these protocols produces the same response

3. You are speaking to a 66-year-old patient who believes he is having heart problems again. With this information, choose the most appropriate chief complaint:
   - A Sick Person — 26
   - B Chest Pain — 10
   - C Heart Problems — 19
   - D Breathing Difficulty — 6

4. You have a middle-aged caller indicating they believe their mother has had a stroke. She is 90, breathing but unconscious. Choose the correct chief complaint:
   - A Stroke/CVA — 28
   - B Unconsciousness/Fainting — 31
   - C Sick Person — 26
   - D Heart Problems — 19

5. You have just received a call from a fireman on a construction site who reports that a worker has been "shocked real bad." The patient is a male, in his twenties and the caller believes he is unconscious, but does not know if he is breathing. Your next question should be:
   - A Tell me what happened?
   - B When did this happen?
   - C Where is s/he now?
   - D None of the above.

6. You are speaking with the mother of an 18-month-old child who states that "my baby has been sick today, now she's shaking." She tells you that the child is "out of it" and is turning blue. Based on her chief complaint, the most appropriate protocol is Protocol 12 (Convulsions/Seizures).
   - A True
   - B False

7. A local merchant calls and tells you "there's a guy in my store that's acting real funny." He indicates the patient appears to be in his late forties, he is conscious and breathing. Which of the following will address this call most appropriately?
   - A Psychiatric/Suicide Attempt — 25
   - B Unknown Problem/Man Down — 32
   - C Sick Person — 26
   - D Overdose/Ingestion/Poisoning — 23

8. A very distraught caller indicates that "their baby drowned in the tub." The nine-month-old baby is unconscious, not breathing. Provide the correct chief complaint below:

9. When asked question 3 on Case Entry, a caller indicates "my brother tried to commit suicide in the car and he's out of it." The caller can't tell if the 41-year-old is breathing as the patient is still inside the car. Protocol 9 (Cardiac Arrest), is the most appropriate place to deal with this call?
   - A True
   - B False

10. Your caller is an elderly male patient who insists his friend is having "abdominal chest pain" after having a family dinner. The patient is a 77-year-old who is conscious and breathing. What is the correct chief complaint to handle this call?

11. It's late at night and you have a caller who indicates their friend was punched in the nose, and he is bleeding "pretty good." Given that this caller has provided a specific injury, Protocol 30 (Traumatic Injuries, Specific) should be used in this case.
   - A True
   - B False
Persistence, Persistence, Persistence
Why All Repetition is Not the Same

Welcome to the maiden voyage of the EMD “Tricks of the Trade” column. I feel compelled to warn you up front about the hectic and stressful nature of this work, as those who are experienced EMDs are already acutely aware. However, EMD can also be very satisfying and positively life-impacting—which makes this such an extremely rewarding profession. Each column will address several ways to practice safer and more effective EMD. Ideas presented here are meant to enhance, not replace, your formal MPDS training and continuing education. For this inaugural issue we’ve identified three topics to focus on: repetitive persistence, Card 24 (Pregnancy/Childbirth/Miscarriage) when dealing with a miscarriage, and “rules” when treating for shock.

Repetitive Persistence

Repetitive persistence works best when you link an action with a reason. Example: “You are going to have to calm down so we can help your baby.” This is to be repeated verbatim, in a calm and caring tone of voice until the caller responds. Many centers visit will repeat, “SIR, YOU ARE GOING TO HAVE TO CALM DOWN!” over and over in a loud tone. While this is repetitive, it is NOT effective. When a caller is screaming in your ear, you need to ask yourself “Is this person mad at me?” “Does this person know anything about me?” If the answer to either of these questions is “no,” then consider that the person calling is in distress and looking for guidance. If you link an action with a reason, the caller will respond.

Another example is, “I need you to stay calm and give me a description so we can catch the person who just stole your car.” This tool will work for all facets of public safety. Try it!

Card 24 Pregnancy/Childbirth/Miscarriage

Many EMDs are intimidated by this protocol. The emotional content can be very high, and it’s not one of the most common chief complaints. I’m often asked about Card 24 and its proper use when dealing with a miscarriage. Once case entry is complete, the first question on Card 24 is, “How many months pregnant is she?” When the answer is five months (20 weeks) or less, the EMD should proceed directly to Question Five, “Is she bleeding or passing any tissue?”

Between five and six months (or 20-24 weeks) some EMDs are faced with attempting to deliver the fetus because of local protocol. Within this time diately. From Card F you will be bridged to Card A (Cardiac Arrest – Infant) and you will receive the appropriate instructions on how to attempt to resuscitate the infant.

If the case is treated as a miscarriage or clearly is a miscarriage and the mother is actively bleeding, you should read the Post Dispatch Instructions (PDI) from Card 24 and then treat the mother for shock by reading PDI Card G Box 8 (see graphic). All pregnancies beyond six months or 24 weeks gestation should be considered a normal delivery and all Key Questions should be read on Card 24.

Treat for Shock

In my classes I’ve noticed that EMD students are often confused about when to treat for shock. Because the instruction to “treat for shock” appears on almost every protocol, except Card 6 (Difficulty Breathing), the EMD is faced with a decision about when it is appropriate, possible, or necessary to treat for shock. Continuing dispatch education is a good tool to address this issue for each specific protocol. As a foundation, here are some rules of thumb.

1. Treat all long falls for shock, remembering not to lift the patients legs or move them.
2. Treat all stabbings and shootings for shock, remembering to not lift the patients legs.
3. Treat all serious hemorrhage for shock after controlling bleeding.
4. Treat anyone that has fainted or nearly fainted for shock.
5. Treat all actively bleeding miscarriages for shock.

These are “generic” rules and are not the only time patients should be treated (or not treated) for shock. Some readers may say, “This is ridiculous! Why would I treat someone with a single stab wound to the hand for shock?” The answer is, you don’t have to. Always remember the rules of PDIs and Pre-Arrival Instructions (PAIs). They are only offered when it is appropriate, possible, and necessary. If you as a professional, certified, EMD can reasonably rationalize why it is not necessary or appropriate to treat a patient for shock, then don’t. This rule of thumb is offered for those that are unsure of what is appropriate, possible and necessary and provides at least a baseline minimum standard.

This process is wide open for discussion. If you have any suggestions on ways to improve this column or have requests for a specific topic, please feel free to e-mail me at pmedic1041@aol.com. See you next issue!
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THIS SECTION MUST BE COMPLETED

PRIMARY FUNCTION
□ Public Safety Dispatcher (check all that apply)
□ Fire  Police
□ Paramedic/EMT/Firefighter
□ Comm Center Supervisor/Manager
□ Training/QI Coordinator
□ Instructor
□ Comm Center Director/Chief
□ Medical Director
□ Commercial Vendor/Consultant
□ Other __________________________

EMPLOYER
□ Private Ambulance
□ Fire Service
□ Law Enforcement
□ Combination Fire/EMS/Police
□ Municipal/Regional Government
□ Educational Institution
□ Other __________________________

SIZE OF COMM. CENTER
(measured by call stations)
□ 1 to 2
□ 3 to 5
□ 6 to 8
□ 9 and over

PRIMARY SERVICE AREA
□ Urban
□ Suburban
□ Rural
□ Mixed

YEARS OF COMM. CENTER EXPERIENCE
□ 1 to 5
□ 6 to 10
□ 11 to 20
□ 21 PLUS

Are you associated with a public or private ambulance service?  □ YES  □ NO

METHOD OF PAYMENT
□ Check/Money Order
□ Purchase Order
(A copy must accompany the registration)
□ Credit Card
□ MasterCard  □ Visa  □ American Express
Card # __________________________
Card Exp. _______________________
Signature _______________________

HOW TO SEND
MAIL: NAEMD • Attn: Navigator '99
P.O. Box 26972, SLC, UT 84126-0972, USA
FAX: 801-254-8850
PHONE: 800-257-8974 USA
1-801-254-8909 International
EMAIL: info@naemd.org
WEB: www.naemd.org

Cancellation Policy: Please provide cancellations in writing no later than Aug. 1. Your registration fee will be refunded minus a $25 processing fee. After Aug. 1, no refunds are issued, however a credit toward future Academy events will be provided minus a $50 processing fee.**
NAVIGATOR '99

AIRLINE INFORMATION:
We have chosen two airlines to assist us with flights for Navigator '99:
American Airlines is offering discounted fares for persons traveling to Navigator '99. To take advantage of these special savings call 1-800-433-1790 and refer to code 4389UH.
Southwest Airlines is offering discounted fares for persons traveling to Navigator '99. To take advantage of these special savings call 1-800-433-5368 and refer to T5779 Navigator meeting code.

For full brochure with course description or questions call 800-257-8974 USA, 801-254-9023 International or visit our website www.naemd.org

CAR RENTAL INFORMATION:
Hertz is the official car rental company for Navigator '99. To make reservations call 1-800-654-2240 and refer to 40888 and the group name of Navigator '99. Hertz is located at the San Antonio airport, and the Marriott Rivercenter Hotel across the street from the Marriott Riverwalk Hotel.

THE NATIONAL ACADEMY OF EMD (NAEMD):
If you have questions about the Academy and its programs please contact us at 139 E. South Temple #530, Salt Lake City, Utah 84111, USA 800-960-6236 or 801-359-6916 International. You can also reach us by Fax: 801-359-0996, Email: info@naemd.org, or visit our website at www.naemd.org.

Hotel & Travel Information

NO SAT. STAY-OVER REQUIRED ON FLIGHTS!

HOST HOTEL INFORMATION:
The Marriott Riverwalk Hotel is located in Downtown San Antonio on the beautiful Riverwalk. The Alamo, Rivercenter Mall, theaters, restaurants and most major downtown attractions are within walking distance. Rates are just $109.00 for Single/Double. Call the Marriott Riverwalk for reservations at 800-648-4462. Their address is 711 East Riverwalk, San Antonio, Texas 78205.

OOPS... CHECK YOUR NAVIGATOR '99 BROCHURE
In the full 12 page Navigator '99 registration brochure there are a few typos and inconsistencies that we need to call to your attention. Specifically, the Executive Certification Course will be held Tuesday, Aug. 31st, immediately preceding the 3-day conference itself (the registration form lists this correctly, but the course description shows the 30th). For clarification, all general sessions Sept. 1-3 will begin at 8:30 a.m. each day. Also, while the EMD-Q course, Aug. 30-31, does require NAEMD Certification and MPDS licensure as prerequisites, ProQA is NOT required. A card license is sufficient. Please take special note that there are three different time options offered for the half day ProQA course. The AQUA software course is post-conference, full-day on Saturday, Sept. 4, from 8:30 am 5:30 pm. Please call our registration hotline at (800) 257-8974 with any questions, or feel free to call our office directly at (800) 960-6236.
Dispatches From The Field

Academy in 1998

Last year was an exceptional year for the Academy. Membership of certified EMDs approached 28,000. Strategic alliances were formalized with other key EMS organizations. The EMD protocol (the MPDS) was updated to reflect current medical technology and a new U.S. patent was issued. More communications centers than ever before are improving the quality of their call-taking. New research changed the way the EMD views prehospital responses to stroke. And, the Academy’s annual Navigator conference again brought together some of the industry’s best and brightest in an exceptional educational forum.

EMD 10.3 Protocol & Curriculum Development

If you haven’t already, request your free update of Version 10.3 from Medical Priority Consultants, the Academy’s contracted vendor for the MPDS distribution (1-800-363-9127). This update, which is simple and quick to implement, includes important changes that affect the current standard of care and practice. Take advantage of this immediately! Details about a comprehensive upgrade (version 11.0) will be formally announced at Navigator ’99.

The Council of Standards continues to review Proposals for Change to the EMD protocol that you as members have been submitting. To date, some 450 proposals have been evaluated, considered, and when appropriate, implemented into the protocol. Version 10.3 of the MPDS is evidence of how the Proposal for Change process works.

The Board of Curriculum has been working to update our current training courses. Course content (including multimedia presentations, manuals, scenarios, and testing) is refined and approved by this Board. Several exciting new changes will be implemented in 1999.

Accreditation Sets the Standard

Accredited Centers of Excellence (ACEs) almost doubled from 15 in 1997 to 27 in 1998. On March 17th Fulton County Emergency Communications Department in Atlanta became the Academy’s 28th ACE, the first in Georgia. In 1998 Fulton County processed 47,889 telephone calls of which 94,000 are EMS related. We extend our congratulations to Communications Director Alfred “Rocky” Moore; Medical Director Arthur Yancey, MD; Sandy Poynter, QIU Manager; and everyone else involved with this hard working group of telecommunication professionals.

Applications for several more communication centers are currently pending Accreditation in 1999. This is a reflection of the importance and value that communication centers are placing on quality assurance and improvement. Individual EMD compliance scores are continually improving as well. This means that you don’t just know how to use the protocol but know how to use it correctly. You’re doing it right!

New Mission Statement for the Academy

Last year the Academy held several important sessions reviewing its strategy and goals, culminating in a meeting with the College of Fellows at the Navigator ’98 Conference in Snowbird. The Academy Officers, Board of Trustees, and College of Fellows all agreed the organization’s mission needed to be updated to reflect the changing landscape of healthcare and emergency services. The EMD and communication centers are now playing new and increasingly important roles in how a community’s emergency and healthcare resources are allocated and delivered. The Academy is well positioned to represent the EMD and provide training, standards, and leadership no matter how the future unfolds.

—Robert Martin, Executive Director

THE MISSION OF THE NATIONAL ACADEMY OF EMD:

• To advance and support the Emergency Medical Dispatch professional; to ensure citizens in need of emergency, health, and social services are matched safely, quickly, and effectively with the most appropriate resource.

THE GOALS OF THE NATIONAL ACADEMY OF EMD:

• To use and promote the fundamental principles of the scientific method in the pursuit of the Mission.
• To advocate a single, scientifically defensible protocol which becomes the unifying standard under which all professional emergency medical dispatchers practice.
• To advance professionalism within the dispatch community by establishing and promoting an ethics policy as well as minimum standards for curriculum, instruction, certification, recertification, and accreditation of centers. To provide opportunities for members to improve themselves and their organizations through facilitation of communication, providing comprehensive information resources and creating high-quality training and continuing education through seminars, publications, and other media designed to meet our member’s needs.
• To establish and promote a collegial, research-based culture that welcomes the expertise of many disciplines through the creation of standing committees, task forces, and subgroups which reach out to other organizations and advise the Academy.
• To be recognized as the authoritative, independent voice which represents the EMD and enhances the profession.
publication EMS Best Practices (Volume 2, No. 1, January 1999). EMS Best Practices focuses on those EMS agencies and programs which have excelled in their individual areas or expertise and serve as models worthy of replication by other similar agencies. We are proud of CRCA and concur with EMS Best Practices that they are among the best of the best.

To add to their honors, their EMD Bonnie Schultz was recently given the American Red Cross' "Real Heroes" award. Ms. Schultz was recognized for her outstanding work in providing dispatch life support instructions to the daughter of an elderly choking woman. During six critical minutes she provided the necessary information and support to allow the daughter to save her mother's life.

Keith Griffiths Named to Academy Board

Keith Griffiths, former President of Jems Communications and founding editor of JEMS, the Journal of Emergency Medical Services, has been named to the Academy Board of Trustees. For the past year Griffiths, through his consulting firm, KG Communications, has been assisting the Academy in developing its publications, conference and overall business strategy. Griffiths will serve as the Academy’s Publisher with broad responsibilities for developing its educational resources. He’ll work closely with Executive Director Rob Martin in expanding the Academy’s reach into the EMS community.

“After many years of friendship, we’re delighted to officially make Keith a member of the Academy team,” said Dr. Jeff Clowntown. “His high standing within the EMS community, his extensive knowledge of publishing and conference development, and his entrepreneurial and innovative spirit all combine to help us move the Academy to the next level of excellence.”

Information & Educational Resources

The following organizations offer training & information services of interest to EMDs.

University of Iowa-EMS
Learning Resource Ctr.
Mike Hartley 319-356-2997
<www.uihc.uiowa.edu/pubinfo/emslrc>

U. of Alabama-Huntsville
Shelia George 205-551-4494

U. of South Alabama
Phylis Vinson 334-639-1070

Rogers University
Larry Brewer 918-343-7635

Columbus State Comm. College (Ohio Region)
Scott Denbowski 614-287-5054

Palm Beach Comm. College (Florida Region)
Barry Duff 561-439-8213

Nash Community College (Roky Mt, NC)
Jay Dornseif 252-443-4011 x312

Phoenix College (AZ)
Dr. K. Lewis 602-285-7207

NH Bureau of Emergency Communications
Bruce Chenery 603-271-6911

Memorial Hospital EMS (Chattanooga, TN)
Bud Hathaway 423-495-4678

Mid-America Safety Cons. (Memphis, TN)
Glenn Faught 901-725-0911

Mountain EMS (Susuansville, CA)
Jeff Diehl or Aaron Himelson 916-257-0249

San Jose Fire Department (CA)
Gary Galasso 408-277-4105

Acadian Ambulance (Lafayette, LA)
Todd Laporte 318-267-1523

Abbot Ambulance (St. Louis, MO)
John Huffman 314-768-1000

Team Dispatch (FL)
Promotes EMD & offers awards
Send success stories for review
Mike Richman 407-687-9113

Dispatch Monthly Magazine
Subs. only $20 for 12 issues. Write to: Gary Allen, P.O. Box 1153, Benicia, CA 94510 707-747-0540 <www.911dispatch.com>

9-1-1 Magazine
Subs. only $24 for 12 issues. Write to: Randall D. Larson, PO Box 11788, Santa Ana, CA 92711 800-231-8911 <www.9-1-magazine.com>
The Academy is putting its money where its mouth is by, as Jimmy Buffett sang, "searching for answers to questions that bother us so." We have long been concerned about the lack of credible research into many aspects of the EMD process, and have at times questioned or criticized published papers that have presented results that were collected without fully controlling the research environment. (The worst offenders being studies that report efficacy of a protocol without showing that the dispatchers were actually using that protocol.)

Effect of a comprehensive quality management process on compliance with protocol in an emergency medical dispatch center. Clawson, J.J., Cady, G.A., Martin, R.L., and Sinclair, R., Annals of Emergency Medicine, 32(5):578-584 (1996) is the first research paper in what we anticipate will be an extensive series. We will use it to kick off this new column, Research and Ruminations, in the next issue of The NEMD Journal. Research and Ruminations will report on some of the studies we are conducting; it will review, applaud, or criticize work that appears in the EMD literature. It will teach you what you need to know to understand and evaluate published work.

Sometimes it will simply chew over areas that need thought or additional work.

Acceptance in a peer-reviewed journal of the above-mentioned paper establishes an important concept in the emerging science of EMD: it is absolutely possible to measure dispatcher compliance to a protocol. This should come as no surprise to MPDS users, but its importance cannot be over-emphasized. We are aware of no other study of an EMD protocol where dispatcher compliance to the protocol was reported. If a study that purports to analyze a protocol does not examine and report dispatcher compliance to that protocol, the researchers cannot determine whether they are studying the protocol per se or the experience and skill of the dispatchers who are using it. While skilled dispatchers are an asset to any center, if their experience overrides failings or weaknesses in a protocol, then that protocol will not be able to grow and mature in the same way that the MPDS has. This paper effectively raises the bar on reporting studies that involve EMD (and other) protocol use.

We are convinced that careful studies will become vital to the directed evolution from MPDS version 10.3 to future versions. The Academy is therefore becoming more involved in the fundamental research that is needed to understand how the protocol must work, and why. We are also encouraging you, as MPDS users, to get involved. Developing knowledge and understanding through research is one area where each of us has the potential to make an enormous difference. We encourage your investment, collaboration, expertise, and advice in forwarding research by all centers or individuals using the MPDS. Please contact us if you have ideas or topics you think should be examined, but don’t quite know how to begin (or how to finish!).

We are also providing a forum at the 4th Annual Navigator Conference, Sept. 1-3, 1999, in San Antonio, Texas, for people outside of the Academy who are studying some aspect of EMD, to present their work and solicit feedback and comments. We are accepting abstracts to be presented at Navigator ’99. Submissions will be evaluated by members of the National Academy of EMD’s Research Council. Authors of those abstracts that are determined to be of most value or interest to the Navigator attendees will be invited to present their material during the research session. Submissions not selected for oral presentations will be considered for posted presentations. Contact us at the Academy if you would like to receive a copy of the Call for Submissions.

We are interested in your ideas. We’d love to hear your views on what we should be studying. If you find interesting EMD-related articles or news stories that you think we should cover, please share them with us. We’d love to get copies of tapes that might illustrate important strengths or weaknesses of some of those elegant moments when the call almost flows along by itself.

BOB SINCLAIR, PhD: Dr. Sinclair guides the research activities of the Academy as its Senior Technical Editor and Research Specialist. He holds a doctorate degree in biotechnology from the University of East Anglia, Norwich, U.K. and has broad scientific research experience that includes work on the human genome project and almost 10 years managing the National Center for the Design of Molecular Function, an NIH research resource focused on biotechnology and instrument development.

CREATING TIME STANDARDS
CONTINUED FROM PAGE 1

has lead to the development of what we now refer to as the “Snowbird time standards.” The further refinement and industry-wide acceptance of the Snowbird times is as essential to the world of public safety telecommunications as Ustien was to cardiac science.

The National Academy of EMD has charged its newly organized Call Processing Board to rigorously define the proposed Snowbird time standards and to aid the Academics and Standards section of the Academy in publishing the definitions. Once public disclosure of what defines each time interval has been made, the Academy can begin to study the large data sets obtained through the use of the automated MPDS at communication centers that share their data with the Academy. (These data sets contain time-stamped information about many stages of the dispatch process, and can be validated based on the compliance of the center to the MPDS protocols.)

Obviously, the need for a public safety medical response begins at the time the accident or medical event occurs. After the event, the time to access 9-1-1 is traditionally very difficult to objectively establish (although some published data suggests that 9-1-1 access times are much longer than would be guessed by most lay people, even when phones are readily accessible!). Once the caller has reached a telephone, the progress of the incident through the EMS system can be broken down into a series of steps, each of which can be defined by a specific milestone. In some systems, the earliest steps occur automatically using ANI/ALI information; in other systems, these steps must be performed manually. Similarly, steps may be omitted in some systems (such as in a combined police/fire/medical center where it is not necessary to re-route the call). The main milestones include:

• The caller dials the three digit universal num-
Call processing mileposts:

- The telephone system routes the call to the most appropriate PSAP and, in enhanced systems, attaches address and telephone information.
- The PSAP may further route the call to a police, fire, or ambulance call center or to a different call-taker within the same consolidated center.
- The medical call center’s CAD verifies and accepts the address and phone information from the system.
- The EMD receives the call and begins interrogation using the MPDS case entry sequence.
- The address and telephone number are verified (or entered and verified).
- The case entry question, “What’s the problem? Tell me exactly what happened,” is asked. This is a key milestone that many agencies use as the actual starting time for measuring how long it takes to mobilize an appropriate response.
- The case entry sequence is completed.
- An emergent response is sent if the patient is unconscious and not breathing.
- A chief complaint is selected.
- The key questions sequence is completed for the appropriate chief complaint protocol.
- A determinant (clinical/incident-type) code is selected.
- The appropriate response (locally assigned to each code) is queued.
- The response is activated (responders begin egress from a stationary location or begin response if mobile).
- The EMD provides post-dispatch or pre-arrival instructions whenever possible and appropriate, or proceeds with the case exit sequence.
- The emergency vehicle arrives at the scene.
- The responders arrive at the patient’s side.
- The patient’s care is officially transferred to responders.
- After this sequence, another series of time segments can be defined, including on-scene assessment, on-scene treatment, loading into the ambulance, transport, and delivery to the ED; however, these are outside of the scope of the Academy’s immediate interest.

A series of factors can affect each of these time segments. In addition to identifying the mileposts that define the segments themselves, these factors also need to be identified and evaluated—whether they can be accurately measured or not. This information in hand, it becomes possible to list the individual parts of the emergency response and the things that influence how appropriately or rapidly they can be performed. Two things can then happen: (1) an analysis of thousands of complaint MPDS cases will place average times (and statistically valid ranges) on many of these time segments and (2) comparison of these average times with perceived medical need can be performed on a determinant-by-determinant basis.

Once the definitions and ranges for these time intervals are accepted, the EMD and other telecommunications can be freed from the slavery of what has been in the past referred to as the “60-Second Dilemma.” It was clear from the Snowbird discussions that a one-size-fits-all approach to call processing times is inappropriate and no longer valid. This is apparent when one is listening to a trained EMD correctly interrogate a first versus third party caller reporting a traffic accident, or a caller reporting a patient with abdominal pain versus a caller reporting a patient having a seizure. Where secondary surveys require more evaluation due to safety or more complex clinical issues, appropriate processing times will legitimately vary. As Thera Bradshaw famously stated several years ago, “It’s time we start doing it right, not just fast.”

What was clearly important from the Snowbird forum is that a blanket approach to establishing a time standard for dispatch (such as the idea that, say, 80 percent of all category x responses must arrive at the scene within y minutes) is a concept that has no basis in reality—until “category x” can be defined to the level of a specific type of event (such as an MI) and when it occurred. The MPDS, as it stands, has over 240 different determinants (each a different category x in the above scheme). These could be used, in conjunction with sound medical data that relate to how the symptoms that led to a given determinant are likely to change over time, to establish real—medically rather than politically—driven time standards for specific complaints. These, combined with realistic estimates of how long each sub-section of the dispatch process actually takes, will eventually allow us to define more realistic clinically-based time goals for a wide variety of EMS responses.

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Jeff J. Clawson, MD: Widely recognized as the “Father of EMD,” he is a founder of the Academy and inventor of the Medical Priority Dispatch System.
Part-time and Casual “Monitors” Wanted
Bethany Lifeline, Calgary, Canada is looking for part-time and casual dispatch "monitors." Responsibilities include monitoring a personal response safety service primarily for seniors and people at risk. Good communication skills and computer skills in MSWord are necessary. Training or experience in EMD and a second language are assets. Salary range $9.12-$11.50 per hour. Apply to: Human Resources, Bethany Care Society FAX: 403/284-1232.

Principles of Emergency Medical Dispatch
by Dr. Clawson and Kate Demnoceur
The newly revised edition of this classic text is now available. Learn everything about EMD from A to Z, with reports on the latest research, new medical-legal case studies, the theory and practice of Dispatch Life Support and numerous valuable appendices among its 700 pages beautifully hardbound. $59 plus $8 shipping. Contact Amanda at NAEMD: Phone:1-800-960-6236, FAX: 801/359-0996, or Email: amanda@naemd.org.

UPCOMING REGIONAL EMD CERTIFICATION COURSES

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National Academy of EMD
139 East South Temple, Suite 530
Salt Lake City, Utah 84111, USA

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