Disaster Healthcare Volunteers
Preregistration Is Crucial to Rapid Deployment
Millicent Wilson, MD
Sandra Shields, LMFT, CTS

We know that a major disaster will hit Los Angeles County. The question is not if, but when. The events of 9/11 and Hurricane Katrina point to the need for organized systems to recruit and mobilize qualified medical volunteers. To meet the increased need for health care personnel following disasters, Los Angeles County launched the Los Angeles County Disaster Healthcare Volunteer (DHV) program, formerly known as the ESAR-VHP/MRC.

The program is part of the federally mandated, state and nationwide effort to recruit and register health care volunteers in advance of the next disaster.

The goals of the L.A. County DHV program are simple: identify health care providers and volunteers; preregister them; prequalify them in terms of practice validation, licensure, and credentialing; and streamline their identification at disaster sites. All of these actions will help accelerate the deployment process in the event of a disaster.

The DHV is a collaborative effort led by Los Angeles County’s Department of Health Services Emergency Medical Services Agency and the Department of Public Health. It consists of the Los Angeles County Surge Unit, as well as three Medical Reserve Corps, or MRCs (MRC-Los Angeles, the Beach Cities Health District MRC, and the Long Beach MRC). Volunteers are given a choice of units when they register.

Health Care Professionals Are Needed

Developing and implementing such a volunteer system in a county as large as Los Angeles presents many challenges. In a large scale anthrax attack, for example, the county would need as many as 43,000 volunteers to support mass medication efforts and about 4,000 medical volunteers for the surge capacity staffing at area hospitals.

Although the U.S. Census lists 300,000 health care providers

see DHV (continued on pg.5)

NEW LA COUNTY TREATMENT PROTOCOLS RELEASED
By Christine Bender, Chief, Prehospital Care Operations

The new Los Angeles County Treatment Protocols have been posted to the EMS Agency website (http://ems.dhs.lacounty.gov) in preparation for implementation on July 1, 2011. The project has been more than two years in development and required a detailed review of all the documents governing EMS, some of which were more than 10 years old. The result of this effort is that the former Base Hospital Treatment Guidelines (BHTG) and Standing Field Treatment Protocols (SFTP) have been merged and streamlined into a set of 34 documents that address everything from cardiac arrest to pain management, trauma to pediatrics, hypothermia to burns. They are easy to follow in a linear, sequential style and reflect current treatments based on medical literature. The 2010 American Heart Association changes have been incorporated into the protocols and new drugs, such as Ondansetron (Zofran) and nebulized epinephrine, have been added.

The treatment protocols were revised to bring prehospital treatment into alignment with current EMS community standards. We now have a single document that moves both MICNs and paramedics smoothly through the treatments and eliminates conflicting information from different protocols and guidelines. They have been reformatted into a portrait style that is easy to read and corresponds stylistically to the policy format used by other local EMS agencies throughout the state. Ref. No. 806.1 has been revised and reformatted to match the Treatment Protocols and will be implemented on July 1, 2011 as well.

see treatment protocols (continued on pg.3)
We live in a prehistoric world of “patient man and radio man” or “senior paramedic and junior paramedic” or “paramedic and EMT” or “transport or non-transport” paramedic or even “driver and attendant.” Each of these has a clear connotation of a team leader and some other less responsible individual. There does need to be a team leader. There is authority for a team leader to have patient health care management (HSC 1798.6) and a defined hierarchy does exist, but when it comes to quality patient care, every EMT and paramedic at the scene is individually responsible and accountable.

But it is also possible that not all team members are aware of all the history or physical details and may not be aware of why a certain decision was made. They have the right and responsibility to question decisions and the leader should be confident enough to explain their rationale. To make this a reality, strategies for communication and situational awareness between team members must be implemented to ensure quality patient care is delivered.

Everyone is Responsible for Patient Care

At the California EMS Authority, the Enforcement Unit receives approximately 400 complaints each year. Many of the complaints, which are patient care oriented, could have been easily corrected by the timely intervention of another paramedic or EMT at scene. Unfortunately, we have observed that the stated reason for not intervening is that they were not the person “in charge” for that response and they felt uncomfortable with assertively assisting other paramedics or EMTs on scene.

Yes, we understand that human errors do occur. But too often, many other paramedics or EMTs are on scene that do know the correct way to proceed but are often afraid or not encouraged to speak up. When a call goes bad, the EMS Authority looks at each certified or licensed person at the scene as each has an individual responsibility to ensure high quality patient care to their level of training. As EMTs and paramedics work in the pre-hospital EMS environment, there should be no excuses for complacency when caring for patients.

Situational Awareness and Crew Resource Management (CRM)

Strategies for fostering communication and situational awareness during emergency medical care should be implemented. The Advanced Cardiac Life Support course already uses the term that alludes to this as “constructive intervention.” In air safety applications, crew resource management (CRM) is a procedure and training system in systems where human error can have devastating effects.
Just as a co-pilot (first officer) of an airliner would not allow their captain to make a fatal error while transporting 200 passengers, the many paramedics and EMTs that are often on the scene must work together to ensure patient care and safety in the same way.

**treatment protocols**

1. Basic airway
2. Spinal immobilization prn
3. Control major bleeding prn
4. Oxygen/pulse oximetry prn
5. Advanced airway prn
6. Cardiac monitor prn: document rhythm, attach ECG strip if dysrhythmia identified and refer to appropriate treatment protocol
7. Venous access prn

8. Perform blood glucose test prn, if blood glucose less than 60mg/dl: Consider oral glucose preparation if patient awake and alert
9. If indicated, **Dextrose**
   - 50% 50ml slow IV push, may repeat one time
   - **Pediatric:** See Color Code Drug Doses/L.A. County Kids
   - 2yrs of age and younger: Dextrose 25% 2ml/kg slow IV push, may repeat one time
   - 2yrs of age and older: Dextrose 50% 1ml/kg slow IV push up to 50ml, may repeat one time.

10. **CONTINUE SFTP or BASE CONTACT**
11. Reassess for deterioration and refer to the appropriate treatment protocol, if applicable
12. If fluid challenge is indicated, obtain base hospital order
13. If nausea and/or vomiting:
   - **Ondansetron**
     - 4mg IV or IM or ODT (Orally Disintegrating Tablet)
     - **Pediatric:**
     - 4yrs of age and older: 4mg IV or IM or ODT (Orally Disintegrating Tablet) Do not administer to children less than 4yrs of age
     - Maximum dose 4mg all routes

This protocol includes, but is not limited to, vague complaints such as: • General weakness/dizziness
• Nausea and vomiting
• Palpitations without dysrhythmia
• Vaginal bleeding (less than 20 wks gestation, no pain, normal vital signs)
• Malaise
• Near syncope

Some specific changes are:

- Reference No. 806.1 and the SFTP were incorporated into each protocol.
- Zofran, a medication to control vomiting, has been added to Reference No. 1202.
- A column to treat Stridor and nebulized epinephrine has been added to the Respiratory Distress protocol. • The tachycardia protocol now addresses both wide and narrow QRS tachycardias.
- Each time a drug is listed in the protocol, the dose and route is included as well to eliminate “hunting” around the document for a separate section with pertinent information.

Mark Ferguson, RN 2011 Nurse of the Year for LA County

by Michele Hanley, Program Director, Paramedic Training Institute

Mark entered the world of EMS when he graduated nursing school and began working at LAC+USC Medical Center in the Emergency Room in 1991. Mark came to the EMS Agency on December 6, 1999, where he was hired as a nursing instructor for the J. Michael Criley Paramedic Training Institute (PTI). Mark has remained at PTI and has become a vital part of the training program.

Mark started at PTI as a nursing instructor where he managed day to day didactic training of paramedic students. He was well liked by students and staff and soon took on more responsibility. He became the clinical coordinator and scheduled 120+ students per year in various clinical sites. His finesse in scheduling clinical days for the students became a process that present coordinators utilize today.

Mark was promoted to a Senior Nursing Instructor in September 2004, where he took on the role of Primary Training Coordinator. His responsibilities include managing and supervising 2 nursing instructors, coordinating day to day activities of PTI, insuring that necessary resources are available for training, and overseeing the EMT Continuing Education Program for the Ambulance Services Section of the EMS Agency. He is also responsible for organizing and facilitating quarterly Preceptor Training Courses for field providers. He teaches multiple aspects of paramedic training and is able to teach any one of the 68 lectures or 35 labs taught at this institute. Mark helps coordinate and facilitate the annual continuing education training entitled EMS Update. This training involves several months of organizing and gathering...
information. The training is done for approximately 88 educators within Los Angeles County then disseminated to over 4,000 paramedics and Mobile Intensive Care Nurses. Several times a year the Paramedic Training Institute receives request for tours and information about our training from foreign training programs. Mark organizes and hosts these foreign groups when they come to our facility.

Mark earned his Bachelor’s Degree in Nursing in 2010, which was a personal and professional goal of his. He is a conscientious supervisor and exemplifies integrity and commitment to the County. His calm demeanor and professionalism makes working with Mark on small or large projects easy. Mark will take on new tasks with a smile and never complains about his expanding workload. He is always willing to jump in and help out when necessary. To quote an overused phrase, Mark is the grease that keeps the operational wheel of PTI moving. Congratulations Mark, this award is well deserved.

MAC Staff assist in Haiti
by Mike Noone, EPTC, Medical Alert Center

On the previous trip, conditions were primitive, with patients being transported in flatbed trucks between field hospitals, the USNS Comfort, the University of Miami tent hospital and other facilities. Most established hospitals in Port-au-Prince were damaged or destroyed during the quake and treatment areas were set up under tarps, in parking lots, or in any open space.

Due to these crisis conditions, patients were released with external fixation devices stabilizing their fractures, recent amputations and extensive need for rehabilitation, physical therapy and follow-up procedures. Returning to muddy tent cities, these patients were especially vulnerable to infections and complications and in need of prostheses, crutches, walkers and other assistive devices. The focus of Mike’s previous trip was assisting residents of Cite Soleil, one of the poorest areas in the city, with these post-quake medical issues.

On this recent trip, Mike found that the city, while still desperately poor, and with hundreds of thousands still living in tent cities, has thankfully left its post-earthquake immediate crisis mode. The facility which hosted him, Hopital Espoir (Hope Hospital) was damaged – having the rear portion essentially shift away from the front. However, with the help of donations, the building was repaired and strengthened, re-opening in November of 2010. It is a small community hospital, seeing patients throughout the day in a clinic and two bed emergency room, but providing 24 hour OR, L & D, NICU, X-ray and ultrasound capabilities.

Mike worked along side an American ED doctor in seeing patients, most with urgent-care type complaints, doing vital signs, patient transports etc, essentially lightening the load for the Haitian doctors and nurses who staff the hospital on a day-to-day basis. The cholera epidemic appears to be controlled although precautions have been taken by directing anyone with severe G.I. symptoms to an external tent triage/treatment area which can be more easily decontaminated than the ER. At the hospital, there are still earthquake victims in need of prosthetic arms and legs, and receiving physical therapy for their injuries.

Mike brought back lessons-learned regarding postdisaster medical response, communications, logistics and organization and discovered that the large tent hospital operated by University of Miami is very similar to Los Angeles County’s mobile medical facilities.

The trip was arranged through Konbit for Haiti, a charitable organization which directs donations and volunteers to Hopital Espoir and the J/P HRO camp, one of the largest tent cities in Port-au-Prince, set up by actor Sean Penn and philanthropist Diana Jenkins. Mike is also grateful for the support of his co-workers and administrators. As you consider making charity
donations this year, please don’t forget the continuing need in Haiti.

**treatment protocols** (from on pg.3)

- The Special Considerations section has been reduced to as few items as possible to keep information in the protocol steps.

The EMS Agency would like to thank the physicians, nurses, paramedics, PTI instructors, SFTP educators and all others who contributed their expertise to the Treatment Protocols, reviewing them endlessly for mis-spellings, factual errors, and formatting. Change is not easy, especially for those of us who have worked in EMS for a long time, and there may be a period of adjustment that will require patience on both sides of the radio. The EMS Agency is confident; however, that continuous review and revision of existing policies and procedures is the key to maintaining forward-thinking EMS in Los Angeles County.

**Smiley** (con’t from page 2)

CRM aims to foster a climate or culture where the freedom to respectfully question authority is encouraged. However, the primary goal of CRM is not merely enhanced communication but rather enhanced situational awareness. These are often difficult skills to master, as they may require significant changes in personal habits, interpersonal dynamics, and organizational culture. It recognizes that a discrepancy between what is happening and what should be happening is often the first indicator that an error is occurring. It uses the five-step Assertive Statement method as one technique to diplomatically express a difference of opinion.

- Opening or attention-getter: Address the individual. “Dan” or “Captain Smith” or whatever name or title will get the person’s attention.
- State your concern: Express your analysis of the situation in a direct manner while owning your emotions about it. “I’m very concerned about the respiratory status” or “I’m very uncomfortable with leaving the patient at the scene.”
- State the problem as you see it (real or perceived): “I am not seeing adequate ventilations being given” or “It seems that the patient can’t make an informed decision due to his mental status.”
- State a solution: “Let’s try to provide better basic airway management or an advanced airway” or “I think we should go ahead and transport the patient to the hospital now.”
- Obtain agreement (or buy-in): “What do you think?” or “Does that sound good to you, Captain?”

This can certainly be a delicate subject for many organizations, especially ones with traditional hierarchies. Appropriate communication techniques must be taught to supervisors and their subordinates so that supervisors understand that the questioning of authority need not be threatening and subordinates understand the correct way to question orders. Consideration should be given to its required use in the prehospital care setting by EMTs and paramedics to decrease the chance of human error.

The concept is not new to EMS. In fact, the IAFC has already published documents related to its application within the fire service and articles and books have been published that make the case for CRM as a foundational level of competency in EMS.


**Next Steps**

The EMS Authority will be asking all LEMSA Medical Directors, provider agencies, and training programs to discuss the concept of individual responsibility and accountability. Additionally, the training and use of tools and techniques, like Crew Resource Management, should be examined for their routine application in pre-hospital care to provide quality patient management.

**DHV** (from page 1)

in the County, it would be difficult to mobilize a group that size to respond rapidly without preregistration.

As recent disasters demonstrate, doctors are eager, willing, and able to volunteer in an emergency and they will be greatly needed to meet the extraordinary demands of a large-scale emergency or natural disaster. Hospital and other health care providers will depend on the services that health care volunteers can provide.

It is understood that the first duty of physicians and health care providers is to their own hospitals. If a doctor registers with the DHV program and is asked to deploy, he or she may accept, decline, or ask to be rescheduled. Registering as an L.A. County Disaster Healthcare Volunteer will not detract in any way from a doctor’s obligation to his or her own facility.
In addition to doctors, the following health care professionals are also being sought for the L.A. County Disaster Healthcare Volunteers program: physician assistants, nurses, licensed mental health professionals, dentists, paramedics, respiratory care practitioners, pharmacists, radiologists, certified nurse assistants, physical therapists, podiatrists, occupational therapists, optometrists, and phlebotomists.

Consider registering for the program now so that you can more quickly assist those in need in the event of a disaster.

**How to Register**

Sign up now to be added to the roster of L.A. County Disaster Healthcare Volunteers. The process is quick and easy:

- Log on to www.lacountydhv.org
- Click on “Sign Up Now.” Create a Username and Password and complete the registration.

Applicants will receive a follow-up e-mail from the DHV registration system.

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**EMS Report Form Changes 2011**

by Chris Clare, EMS Data System Manager

The EMS Report Form has been revised to minimize duplication, simplify documentation and add pertinent data for the Stroke patient. The revised forms will be distributed to provider agencies beginning in June. Additionally, the EMS Report Form Training Manual will be updated and posted on the EMS Agency’s website. This article summarizes the key changes. The fifth page, Green-Base Hospital copy, is being eliminated. It is not used by the Base Hospitals as the copy is too light and illegible. The Agitated Delirium Base Hospital Treatment Guideline that is currently located on the back of the fourth, blue, page is being removed. The Multicasualty Incident worksheet will now be located on the back of the fourth page. Many of the references located on the back of page two (red) and page three (yellow) were revised to reflect changes in practice (including medications); and hospital and provider changes (additions, deletions and name changes).

**Incident Information**

- Removed Spec IFT from Run Type. This can be determined by the Team Member ID numbers. IFT is to be used for all interfacility transfers, regardless of the staffing.
- Deleted 1st on Scene as this can be determined by the arrival times.
- Deleted Transported By column as this can be determined if the provider documents at facility time.

**Transport Section**

- Changed Contact to B. (Base) Contact. If applicable, indicate the Base Hospital contacted for medical control.
- Added B. (Base) Ntdf. (Notified). This is to be used when the Base Hospital is contacted for destination or arrival notification. In this case medical control was not provided by the Base Hospital.
- Changed Divert From to MAR. Document the MAR if the patient is taken to another hospital due to Diversion status.
- Removed Private Vehicle, Police and Other from Via. EMS personnel cannot validate these modes of transport.
- Removed Health Plan for a Reason choice. If insurance is the reason for transport to a specific hospital, document by checking request.

**Patient Assessment**

- Second (Sec.) Sequence # changed to Original (Org.) Sequence #. If more than one EMS Report form is generated, the sequence number from the first form should be documented here.
- Moved Extricated @ _____ to the Mechanism of Injury section.
- GCS/mLAPSS space for the patient’s last well known date and time was added. This should be documented whenever a patient has signs or
symptoms suspicious of a stroke or whenever a mLAPSS exam is completed.

Patient Information

- Deleted MediCal, Medicare and Issue Dates. Replaced with a blank insurance line. All insurance providers can be documented here.
- Specified only the last five digits of social security number are required. **Comments**

- Added extra line.
- Moved sexually enhancing drugs (SED) to allow more medication documentation • Separated O and P. Onset (sudden or gradual) and provoking factors should be documented. **Physical**

  - Added sluggish for pupils
  - Added snoring for respirations

**Arrest**

  - Moved the Analyze and Defib for AED from Therapy section to eliminate duplicate documentation. • The reasons for withholding resuscitation were rearranged and a signature line was added. The signature of the family member who is requesting withholding of resuscitation is to be obtained here.

**Therapies**

  - Removed many therapies that were duplicated elsewhere in the documentation.
  - Added Breath Sounds, Chest Rise and Existing Tracheostomy under BVM.

This will allow for appropriate BVM documentation when an ALS Continuation Form is not required. • Added mmHg and time under CPAP. These are to be completed whenever CPAP is utilized. • Added mA (milliampere) and ppm (pacing per minute) for TC pacing. These are to be documented whenever transcutaneous pacing is utilized.

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**Return of Spontaneous Circulation (ROSC) Questions by Paula Rashi, STEMI Program Manager**

**Why are we transporting ROSC patients to a STEMI Receiving Center (SRC)?**

The rationale for transporting ROSC patients to a SRC is two-fold:

1. 70% of all ROSC patients have an acute blockage in a coronary artery requiring a cardiac intervention.
2. ROSC patients with a GCS <8 may meet inclusion criteria for therapeutic hypothermia, a new treatment modality provided by the SRCs which improves patient outcomes after a cardiac arrest.

**Is it considered ROSC if the patient only has a few heart beats then nothing?**

ROSC is the sustained restoration of a spontaneous perfusing rhythm that results in breathing (more than an occasional gasp), coughing, movement, palpable pulse, or a measurable blood pressure. The palpable pulse should be sustained for 30 seconds, not a fleeting few beats.

**Do I have to perform a 12-lead ECG on all ROSC patients?**

Only if a 12-lead ECG was not performed before the cardiac arrest. The importance of the 12-lead is to determine whether the patient had an Acute MI (before or after ROSC). If the patient has a 12-lead ECG analysis of an acute MI it will be very important for the paramedic to communicate this to the base/SRC so that they can activate their cath team.
Do all patients with ROSC go to a SRC?

No, pediatric patients 14 years and under should be transported to the most accessible EDAP while patients meeting Trauma Triage Criteria or Guidelines per Ref. No. 506 should be transported to a trauma center.

Do I have to contact the Base hospital for a ROSC patient?

YES. A ROSC patient, like a STEMI patient, does require a base hospital contact (notification for SFTP providers). However, if the receiving hospital is also a base you may contact the receiving SRC directly, even if it is not your assigned base.

What is the destination for the ROSC patient who re-arrests enroute to the SRC?

If a ROSC patient re-arrests enroute to the SRC there is no change in destination, transport should continue on to the SRC.

Since we are supposed to work up cardiac arrest patients in the field, what should we do if we have a patient who is going in and out of V-fib and we have administered our two rounds of drugs?

This is a case where you should contact the base for medical direction. Depending on whether a 12-lead ECG was performed and the findings and/or medical history etc., the base may direct you to continue ALS measures in the field. On the other hand, if a 12-lead ECG analysis identified a STEMI prior to the arrest on a younger patient with no medical history, the base may direct you to transport the patient to the SRC and notify their cath lab team. Please contact the base any time there is a question regarding the patient’s care and/or destination.
Save the Date
LA County Fire Museum presents
Photos are courtesy of and belong to Art Hsieh, CEO and Education Director of the San Francisco Paramedic Association.

“51 In Quarters”
A smokin’ HOT event!!
Saturday, July 9, 2011 - 10:00 am - 4:00 pm
LACoFD Station 127 - Carson, CA

Commission Awards
Twenty-nine California emergency medical services providers and associates were recognized for exceptional acts of bravery and service to their communities and to the State at a meeting of the Commission on Emergency Medical Services in San Francisco December 1, 2010. Daniel R. Smiley, Acting Director of the EMS Authority, and Commission Chair Colleen Kuhn, presented the 2010 EMS Awards.

Layne Contreras (Commerce, CA) Received the Meritorious Service Medal for providing superior EMS service and education for over 25 years in Los Angeles County.

Virginia Price Hastings (San Bernardino, CA) Received the EMS Administrator of the Year award for dedication to statewide EMS systems and sustained, superior leadership on behalf of local EMS agencies.

Heather Davis, MS (Los Angeles, CA) Received the EMS Educator award for exemplary service in emergency medical services (EMS) education.

2011 EMSAAC Conference
“The Sands of Time”, the 2011 EMSAAC Conference, will be held at the Radisson Hotel in Newport Beach on June 7th and 8th. Topics on the conference agenda include total airway management, EMS integration of the 2010 AHA guidelines and Lessons from Research-Based Evidence. Registration is online at www.EMSAAC.org/2011Conference.

EMS Week
May 15 -21
The EMS Agency would like to recognize our “every day” hero during ems week. Thank you for making our EMS system one the best in the country!

The J. Michael Criley Paramedic Training Institute Commemorative album is now available for purchase ($55.00 cash or check). The limited edition, hardcover album features the history of EMS in Los Angeles County, letters from Randy Mantooth and Kevin Tighe, profiles of 911 public provider agencies, and over 350 pages of paramedic photos. To purchase the album, please visit the EMS Agency at 10100 Pioneer Blvd, Suite 200 Santa Fe Springs, CA or contact us at 562-347-1500 or ems@dhs.lacounty.gov.

Suggestions and contributions are strongly encouraged. Please email submissions to ems@dhs.lacounty.gov.