



REGION IV NEWS



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From the Desk of the Executive Director - John Guidara, MS, MBA

We're very pleased and proud to bring you this newsletter. Our goal is to keep you better informed and up-to-date on EMS Region IV activities, developments and shared interests as well as statewide EMS news and initiatives. This is the first of periodic newsletters that will be on our website during the year. This publication is an outgrowth of discussions at our PreHospital Systems Coordination Committee, which Ron Quaranto chairs.

We will feature regular columns, news, humor, and important information for our many different constituents. There will be an Executive Director column each edition focusing on one or more timely topics ranging from Council services or programs to a new regulation. There will also be an article from our Medical Director, Charles Pozner, MD, which will be educational and informational, and address a topic that Dr. Pozner thinks is important and relevant. Equally significant, another special feature will be our Express Yourself column allowing you, our reader, to develop an article expressing your thoughts on a topic, idea or point of view that has meaning for the EMS field. Our first article, which Derrick Congdon wrote, offers much food for thought. Do you have something on your mind to tell others in your field? How about letting us know if you want to author the next article for this column. If writing an article is not your style, then consider providing us with feedback or suggestions about the newsletter itself or ideas for the future. We'll always be looking to make this newsletter informative and positive to reach our audience. We also hope you'll find it useful to tell your colleagues about our newsletter, post it for others to read, and in general, help us disseminate our message throughout the Region.

Region IV, similar to the other four EMS Regions in the state, is always very busy achieving our state mandate of "establishing, coordinating, maintaining and improving the EMS system." One key priority during the past year has been service zone planning. Region IV established a Service Zone Advisory Planning Advisory Committee consisting of nine members of our Board of Directors. These members all represent ambulance providers and fire services, and our Medical Director is also a member. The group consists of Mike Aries, Neal Costigan, John Mauro, Brendan Kearney, Bill Mergendahl, Steve Murphy, Dr. Charles Pozner, Ron Quaranto and Patrick Tyler. We have received thirty - nine applications. Five have been sent to OEMS with our recommendation for approval. The rest are in various stages of review by both Council staff and Committee members. Please remember that we're happy to assist you as technical advisors in your development of the Service Zone Application prior to the deadline at the end of this year.

There is much else happening in the Region. In brief.... At our recent Service Award Dinner, awards were presented in seventeen categories at a dinner banquet in Newton which close to 250 people attended.... A strategic planning process in underway with our Executive Committee and Strategic Planning Committee—a set of Strategic Goals and a draft Plan has been developed.... Through a \$40,000 grant from the Boston Metropolitan Medical Response System, we awarded 370 NorthER1000 Hooded Escape Masks to EMS Licensed Ambulance Services operating in Massachusetts EMS Region IV. The awards were granted conditionally to Norwood, Wilmington, Littleton, Wayland; Cataldo Ambulance, LifeLine and EasCare; and South Shore Hospital, pending their submission of an operations and training plan.

In conclusion, our goal, with your help, is to provide a valuable source of information and ongoing activities in Region IV.

From the Medical Director - Charles Pozner, MD

Guidelines 2005...Important Changes that Might Just Save Some Lives as well as Refocus the EMS Agenda.

The American Heart Association (AHA), the European Resuscitation Council (ERC), and the International Liaison Committee on Resuscitation (ILCOR) have collaborated on the development of consensus guidelines for the resuscitation of medical cardiac arrest patients, released in November of 2005.¹ As is typical when medical practice changes, we are going through many twists and turns in our implementation of these guidelines, including: retraining of providers, reconfiguring existing technology, introduction of new technologies, and, the most difficult of all, changing culture/habits. Our hope is that once implemented, we will see the fruits of our labor in the enhancement of lives saved and an improvement in the quality of life of those who are resuscitated. What is atypical; however, are the “basic” level changes that have predominated in this iteration of the AHA guidelines. I hope that paralleling these “basic” guidelines changes will be a refocus of EMS systems, putting sorely needed emphasis onto the basic level of care; a focus that is so important in the management of our sickest patients.

Although there are many pages published on the 2005 changes, they can be summarized quite simply: *If we are going to improve outcomes, we must put an emphasis on the performance of “excellent” CPR during as much of the resuscitation as possible.* Having relied on early defibrillation as the best chance of survival, it is clear that improving outcomes through this strategy alone is not enough.² There is ample data, in both the prehospital and in-hospital settings, that demonstrates that performance of CPR, even in the hands of medical professionals, is inadequate.^{3,4} The science supporting the “new CPR” provides us with the evidence that will substantiate these guideline changes.

This following discussion is not intended provide the details necessary to learn and implement the new guidelines. Nonetheless, I would like to point out some of the seminal changes supported by the literature.

1. In order to maximize coronary and cerebral perfusion, the rate and depth of compressions must be maintained at 100/min and 38mm (1.5-2 inches) respectively.⁵ This will require frequent substitutions of compressors (or automatic devices) to maintain excellent perfusion.

The point: Push hard, fast, and often.

2. When compressions are halted, there is almost immediate cessation of cardiac output. Restarting adequate blood flow using chest compressions is not immediate, requiring some “priming” compressions before adequate coronary and cerebral perfusion can be attained.

The point: Only stop compressions when absolutely necessary and for the shortest time possible.

3. The upstroke of the compression is as important as the downstroke. Effective CPR requires that the heart be adequately filled in anticipation of the downstroke/compression. Normal cardiac filling (preload) is enhanced through a process of siphoning venous blood from the extremities into the thorax. This siphoning is accomplished through the generation of negative intrathoracic pressures with chest recoil; which in the low-flow state of cardiac arrest becomes even more important. If one does not allow the chest to fully recoil (by inadvertently maintaining downward pressure at the end of the compression upstroke), you will decrease preload, resulting in inadequate cerebral and coronary perfusion.⁶

The point: Allow full recoil of the chest with each compression upstroke.

4. In the setting of cardiopulmonary arrest, ventilations are less important than we used to think, especially early on.⁷ When I first started as an EMT it was felt, by those “in the know”, that a ventilation every five seconds was inadequate. We were told to “squeeze the bag” as soon as it refilled, the thinking being that not only was the oxygen good for the patient, but we could help to correct the acidosis generated by anaerobic metabolism. We were wrong! In fact, hyperventilation actually impedes bloodflow through the generation of excessive positive intrathoracic pressures when we breathe too fast or too hard (see the discussion of preload above).⁸ In the low-flow state of cardiac arrest there is such low pulmonary blood flow, that it takes very little tidal volume to meet the oxygen demands of the patient.⁹

The point: Ventilations are 30:2 for BVM, every 8-10 seconds when intubated, and 1 second per breathe.

There are a number of other changes that were recommended, and I'm sure that we will be seeing many others in the future as the science becomes more refined. It is my contention that the effective implementation of these four revisions could account for a significant improvement in cardio-cerebral survival.

I would also like to point out that none of these changes references medications, advanced airways, or other advanced procedures that we, as representatives of the EMS community, have spent most of our past efforts on. Providers at all levels must implement these changes. I think that we should approach EMS in our region in a similar fashion.

The point: We will not provide the best care for our patients unless we concentrate on the care provided by our early BLS responders as much, if not more, than on our, frequently second-to-arrive, advanced level providers.

Express Yourself... (an individual article)

Are We Professionals?

D. Congdon, MS, NREMT-P, Asst. Director, MBEMSC

Professional. Defined by Webster's as "engaged in, or worthy of high standards of a profession. Profession. Defined as a vocation or occupation requiring advanced education and training, and involving intellectual skills, as medicine, law, theology, engineering, teaching, etc.

When we hear the word professional we conjure up images of doctors, lawyers, nurses, and financial advisors. If someone says EMT or Paramedic is the same image conjured up?

My observation leads me to believe that it is a mixed answer. To the public EMS is viewed as a group of professionals who are there to help them in their time of greatest need. We are viewed as thoughtful, compassionate, skilled and knowledgeable.

So why is it that many health professionals and state agencies view EMS providers differently? Is it because the EMT only holds a certification in most states? Is it because there is no required or minimum college education required to become an EMT? The reasons, unfortunately, number many with no real clear delineation of what the real reason is.

So, how do we change this mixed up image? Where do we start? Initial education, continuing education, licensing as opposed to certification, nationally and universally accepted professional standards, some form of college degree. I think you get the point; there are many places you could start. Before we can choose a starting point in the move to lift ourselves to professional status, maybe we should all be on the same page. Even before you say we are all on the same page because we all put the patients well being first, STOP, that's not the page I am talking about.

I am talking about the divisions that currently exist between the various types of EMS providers. Whether you are the private provider, fire service provider, third service provider, or volunteer/call provider you each have a slightly different perspective as to the goals and endeavors of an EMT. Each group has its own views on initial education, appropriate continuing education as well as other aspects of EMS.

These different perspectives, in my opinion, contribute to the mixed view by many of whether we are professionals or not. The only way we are going to be seen as professionals is by putting aside the individual perspectives we have about being an EMT and come together under one definition, one perspective, one view of what a professional EMT looks like. We as a group need to define the profession clearly with one definition and one voice if we are ever going to be seen by all people as professionals.

Tips of the Season

Still not sure how many credit hours you need? Can't remember if you took that refresher? Well there is something that will alleviate your worrying. You can now check your continuing education credit hours on-line. This service is located on the OEMS website. You can access your credit history at <http://db.state.ma.us/dph/oems/default.asp>. If you need a print out of your continuing education hours you can request it on-line at recert@dph.state.ma.us.

Still working on your Service Zone Plan? Looking for specific information regarding Service Zone Planning? You can access Service Zone Planning materials on the Region IV website at www.mbemsc.org. These materials include a planning tutorial, regional requirements, list of things to think of, and links to the service zone applications.

Calling All Creative EMS Professionals

The Region is looking for a new catch phrase. Maybe it is time to retire "fostering a system of care". Do you think you have something catching and trendy that is the essence of EMS and EMS in Region IV? If you think you might have something that embodies Region IV EMS email it to jguidara@mbemsc.org.

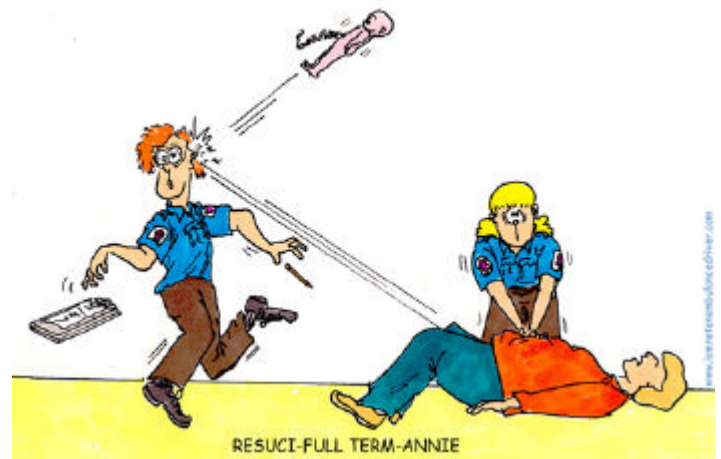
MCI Update

The Massachusetts Department of Public Health (MDPH) has awarded Region IV three (3) mass casualty incident trailers, complete with MCI associated equipment, utilizing funds from the federal granting authority HRSA for their purchase. These trailers are a regional as well as State asset available for services to utilize for large scale incidents. The Mass Casualty Support Units in Region IV are strategically located in Milton and Natick and are used as a support system for Mass Casualty Incidents within Massachusetts EMS Region IV and Massachusetts. They offer CMED communications and medical supplies for major disasters twenty-four hours a day, seven days a week. The RMCSU can only be activated through the CMED Center via Med 4 or the Med channel assigned to the incident. Additional information regarding the trailers can be located at <http://www.mbemsc.org/provider/RegionalMassCasualtySupportUnits.html>. On the site you will find a listing of the supplies on the trailer as well as links to the Educational Program on the RMCSU as well as the policies associated with requesting the units. Should you have any other questions regarding the trailers, would like a demonstration of the trailers or would like to use the trailers for a scheduled event please contact the Region IV EMS office at (781) 505-4367.

And Now for a Brief Intermission....



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EMS Memorial Bike Ride

The Ride To Remember

2007 EMS Memorial Bike Ride
May 20th through May 27th



Every day the men and women of EMS put their lives on the line for those that they serve. Every year there are heroes who die helping others. Since 2001, EMS providers from around the nation have gathered to honor those who have made the ultimate sacrifice.

While the first ride began in Boston, MA; today riders gather in New York City to begin the 600 mile trek to Roanoke, Va. Though they gather from all corners of the nation, the riders share the common bond of seeking to honor our EMS heroes. Through fields and over mountains, the memories of lost loved ones keep the riders moving forward. Join the Ride!

Each year the ride is held the week before the EMS Memorial Service in Roanoke, VA which is usually the third week of the month. If you would like join the riders this year, visit <http://www.emsbikeride.org/forms.html>.

To get more information about the EMS Memorial Bike Ride please visit www.emsbikeride.org

Committee Updates

Medical Control

The MCC will begin looking at the BLS side of pre-hospital care as well as continuing to work with OEMS on Cardiac Point-of-Entry. Upcoming Meetings: 3/2/07, 5/4/07, 7/13/07, and 9/7/07

PIER

The PIER Committee is going full tilt on the development of an informational brochure regarding the Region and will be looking to disseminate it in the near future. Upcoming Meetings 3/16/07, 5/18/07, 7/20/07, 9/21/07, 11/16/07

Pre-Hospital Committee

The PHSCC has helped to organize another successful awards dinner and has developed the inaugural issue of the MBEMSC News. Upcoming Meetings: 2/28/07, 4/25/07, 6/20/07, and 8/15/07

Executive Committee

Currently working on the development of the new strategic plan for the future of the region. Upcoming Meetings: 3/1/07, 4/5/07, 6/7/07, and 8/12/07

Remember: Awards nominations can be submitted year round for the annual awards dinner. Forms are available on the Region IV website at www.mbemsc.org/provider



From the Editor

I hope you have enjoyed our first newsletter. It is our hope to try and bring you several newsletters a year updating you on the happenings in EMS around the Region and the State. If you have any comments or suggestions for topics please let us know.

It is our hope to be able to allow you, the reader, to be able to submit a brief "Express Yourself" article for the newsletter. If you are interested in providing some form of brief article the submission guidelines are as follows:

- 1) Articles cannot be longer than 1 page, Times New Roman, 12 point font
- 2) Articles must have a title
- 3) Author, credentials and employer must be included
- 4) Articles must be thought provoking and encourage thought into the state of the global EMS system (articles must not attack, deface, or accuse other agencies, entities or providers).

These articles are designed to raise the individual providers consciousness of the complexities of our profession and the EMS system and by doing so inspiring many more providers to get involved in defining and refining their profession for the future.

All submissions for "Express Yourself" or any questions or suggestions should be emailed to dcongdon@mbemsc.org.

Until next time, be safe.

Derrick Congdon