IOWA EMERGENCY MEDICAL SERVICES ASSOCIATION

JANUARY/MARCH 2014 • ISSUE 1

IEMS VOICE

A VOICE FOR POSITIVE CHANGE IN IOWA EMS

PAGE 10

EMS SUMMITT

EMS Providers attended with Sen. Danielson & Fmr. Sen Hancock

PAGE 08

SERVICE DIRECTORS MEETING

PRE-EMS Day on the Hill EVENT Success!

PAGE 13

DOUG WOLFBERG WILL PLAY AT BILLING CONFERENCE

to celebrate our 10th Year.

Wow! EMS DAY ON THE HILL : 2014

HENRY SCHEIN®
MEDICAL | EMS

The Source For EMS Professionals

O-Two Single-Use CPAP Delivery System
With Manometer Is Here!

Measure & Monitor CPAP Pressure

- An effective method of treating respiratory distress from CHF.
- Accurate CPAP delivery for such a compact device.
- Uniform CPAP pressure throughout the respiratory cycle.
- Lower work of breathing for the patient.
- Ideal for the treatment of the respiratory impaired patient.

Product Information:
500-0186 - 0-Two CPAP w/Manometer, Adult, #5 Mask
500-0187 - 0-Two CPAP w/Manometer, Adult, #4 Mask
500-0188 - 0-Two CPAP w/Manometer, Adult, #3 Mask

Rely on Us

Henry Schein Medical EMS
IEMSA Preferred EMS Supply and Equipment Vendor for 2013/2014

Bill Beetschen - EMT-P • Iowa Territory Sales Manager
Cell: 847-366-7989 (24/7) • Email: rescue8@comcast.net
Corporate Phone: 800-845-3550 ext. 332

CONTENTS

The VOICE is published quarterly by the Iowa EMS Association covering state EMS issues for emergency medical services professionals serving in every capacity across Iowa. Also available to members online.

7 **EMS DAY ON THE HILL: 2014**
WE SHOWED UP, AND THEY LISTENED. DETAILS AND PICTURES INSIDE.

10 **DUBUQUE EMS SUMMITT :** 50 EMS Providers attended an EMS Forum featuring Sen. Jeff Danielson and former Senator Tom Hancock in Dubuque on December 14, 2013,

OUR PURPOSE : To provide a voice and promote the highest quality and standards of Iowa's Emergency Medical Services.

BOARD OF DIRECTORS

- **President :** Jerry Ewers
- **Vice President :** Linda Frederiksen
- **Secretary :** Brad Buck
- **Treasurer :** Mark McCulloch
- **Immediate Past President :** Jeff Dumermuth

- **Northwest Region :** Terry Stecker, John Jorgensen, Dan D. Paulsen
- **Southwest Region :** Cheryl Lynch-Fuehling, Jan Beach-Sickels, Rob Marsh
- **North Central Region :** Robert Davison, Jeff Eastman, Mark Sachen
- **South Central Region** Mark McCulloch, Katy Hill, Jeff Dumermuth
- **Northeast Region :** Curtis Hopper, Lee Ridge, Rick Morgan
- **Southeast Region :** Thomas Summitt, Bob Libby, Linda Frederiksen
- **At-Large :** Jerry Ewers, Brad Buck, Brandon Smith
- **Education :** Mary Briones, Brian Rechkemmer
- **Medical Director :** Dr. Forslund
- **Lobbyists :** Michael Triplett & Lynzey Kenworthy

BOARD MEETINGS

- February 2014 : No Meeting
- March 20th, 2014 WDM Station 19- 1:00—3:00pm
- April 17th, 2014 WDM Station 19- 1:00—3:00pm
- May 2014 : No Meeting
- June 19,, 2014 WDM Station 19- 1:00—3:00pm
- July 17, 2014 WDM Station 19- 1:00—3:00pm
- August 2014 : No Meeting
- September 18th, 2014 WDM Station 19- 1:00—3:00pm
- October 16th, 2014 WDM Station 19- 1:00—3:00pm
- November 6th, 2014 Iowa Events Center at the Annual IEMSA Conference Time: TBD
- December 18th, 2014 Teleconference - 1:00—3:00pm

IEMSA OFFICE

5550 Wild Rose Ln. , Suite 400
West Des Moines, IA 50266
515.225.8079 • fax: (877) 478-0926
email: administration@iemsa.net
Office Manager: Lisa Cota Arndt

A NOTE FROM OUR PRESIDENT

2014 WHAT'S NEW!

BY JERRY EWERS, Fire Chief, BA, EMT-PS
IEMSA President / Board of Directors

As President of IEMSA, I've really enjoyed being at the helm the last few years and wanted to share what's in store for 2014 before I pass the baton on to the next IEMSA President this coming December.

> By the time this 1st Quarter Voice comes out we will already have had the Service Directors Networking event, first EMS Day on the Hill, and the Leadership Conference. I'm excited to say that with all the energy and focus geared towards legislation efforts last year and moving forward into 2014, that **IEMSA has brought on another lobbyist to join Mike Triplett. We have great momentum moving forward and I'm confident that Lynzey Kenworthy will be a valuable addition to our lobbying efforts at the Capital.** Lynzey is an attorney and has experience with lobbying as well as previous work in Governor Vilsack's office as well as working for the Senate Democrats in previous years. IEMSA looks forward to working with both Mike Triplett and Lynzey Kenworthy on your behalf. We will continue to push and support all of you as we move forward. Again, it's our role to be your Voice in Iowa.

> **I'm proud to announce that IEMSA has partnered with the Iowa Department of Public Health EMS for Children program to offer our first Pediatric Conference.** This will be held in Coralville on February 22, 2014. I believe we put together a great conference with outstanding speakers and interesting topics geared towards both the pre-hospital EMS providers and nurses with **8.0 EMS FORMAL CEHs and .8 Nursing CEUs available.** We look forward to making this another annual event in Iowa. Please join us for the 1st Pediatric Conference. Click here to **REGISTER NOW!** Click here to view the full agenda and Schedule. You don't want to miss this conference. This event is being sponsored by Cornerstone Adminisystems - click here to visit their website.

uh-oh! Peds! CONFERENCE

EMS TRAINING TO CARE FOR LITTLE BODIES

FEBRUARY 22, 2014

AT THE HOLIDAY INN • CORALVILLE, IOWA

> **IEMSA will be celebrating EMS week** with a special EMS Memorial Ceremony on Saturday, May 17th in West Des Moines. Please mark your calendars and join us in West Des Moines.

> **For all those Ambulance Billing Managers and Certified Ambulance Coders we will have Doug Wolfberg back to Iowa on May 1st for the 10th annual Ambulance and Billing Managers Conference.** This will be held in Bettendorf at the Isle of Capri. Doug plans on bringing his guitar for a little entertainment the night before so please mark your calendars because this will be a great event and fun time. This event is being sponsored by LifeQuest.

NAAC National Academy of Ambulance Coding
CEU Approved

> **IEMSA has budgeted and prepared to bring back Jon Politis this fall for the Supervisor's Bootcamp / Leadership Academy** as long as we have the interest to host this event. This is a great training event geared towards anyone interested in learning more about supervisory challenges, leadership issues, and management 101 in regards to personnel and organizations. I've personally attended this bootcamp and believe in it so much that I've been sending

CONTINUED ON THE NEXT PAGE

my own staff to this event. We don't have this caliber of training for supervisors and staff who are interested in moving up the ranks available across Iowa. We have plenty of conferences and training for EMS and Fire across the state, but very limited training opportunities geared towards supervisors and leaders (current or interested in becoming one) in regards to dealing with employees and the challenges of leading change in an organization.

> In the fall we will be looking for nominations for IEMSA board members. For anyone interested in giving back to EMS, or if you have passion and desire to make a difference and have the commitment to participate, I would encourage you to seek nomination for a board seat. If you are interested in helping out, but need more information on what it entails, please don't hesitate to call me directly or e-mail me. I would be more than happy to explain the duties of a board member and the commitment it involves.

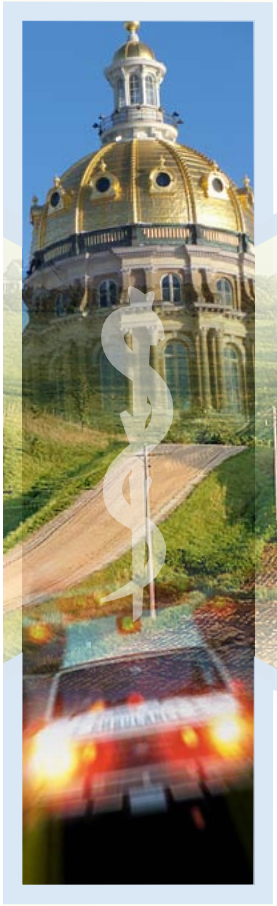
> Last but not least. IEMSA is proud to announce the milestone that this year's conference is our 25th Annual Conference and Trade Show being held in Des Moines on November 6th – 8th, 2014 at the Iowa Events Center. Please stay tuned for a full schedule of speakers we're bringing back along with providing our largest exhibitor hall / trade show ever in IEMSA's history. You really need to mark your calendars for this event and please spread the word. We would like to break our attendance record for our 25th Anniversary and we can only do this with your help. Hope to see you there.

> IEMSA will also be meeting regularly with the IDPH Bureau staff to help disseminate information to all the providers and services across this great state. We are also an affiliate member with NAEMT, which means we will be sharing all the new and upcoming information at the National level to share with everyone in Iowa. As President, I will be attending the State EMS Association Meeting in Georgia this year. This is an awesome event where IEMSA along with all the other State EMS Associations meet to share best practices on how to run an EMS Association and how we can better serve and be the unified Voice for the EMS providers and Affiliate services.

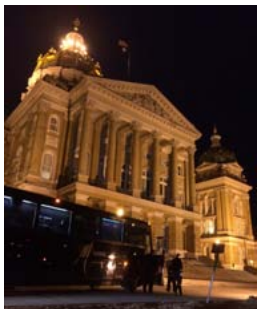
> Please check out IEMSA's website at www.iemsa.net for upcoming programs, conferences, and events for 2014.

BY LINDA FREDERIKSEN, Vice President and Chair

OUR VOICE ON THE HILL
LEGISLATION

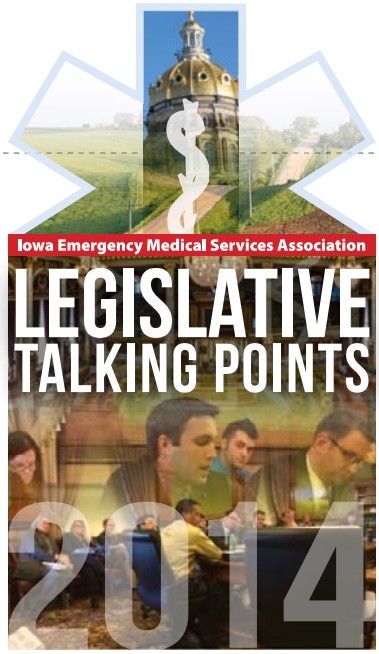


Excitement was in the air on January 30, 2014, as nearly 100 energized Iowa EMS Providers made an impressive showing at the "EMS Day on the Hill" event at the State Capitol.



Arriving for this event in two motor coach buses and multiple personal vehicles, these committed individuals, armed with IEMSA Legislative Talking Points in hand, set forth on a mission to convince our legislators that NOW is the time for emergency medical services to become an "essential" public service. After a briefing by Mike Triplett, IEMSA Lobbyist, important conversations occurred between our membership and nearly sixty of our legislators.

A special thanks to those who attended and we encourage others to become involved and make a difference for emergency medical services in our state. We hope this day to be just one of our many legislative successes, with a goal to double our attendance next year at the Capitol.



1. Emergency Medical Services, along with Police and Fire, should be an essential service provided by all levels of local government.
2. Increase the Volunteer EMS/Fire Tax Credit from $50 to $500.
3. Increase the Medicaid reimbursement for ambulance service.
4. Increase funding for the Iowa Department of Public Health's EMS Bureau to staff vacated positions in the following priority order: Two Regional Coordinators, Data Analytics personnel, Medical Director.

The Iowa Legislature Bill & Code Watch

> The legislature convened on January 13 for the 2014, and it appears that this session will be short.

The IEMSA Bill Watch includes:

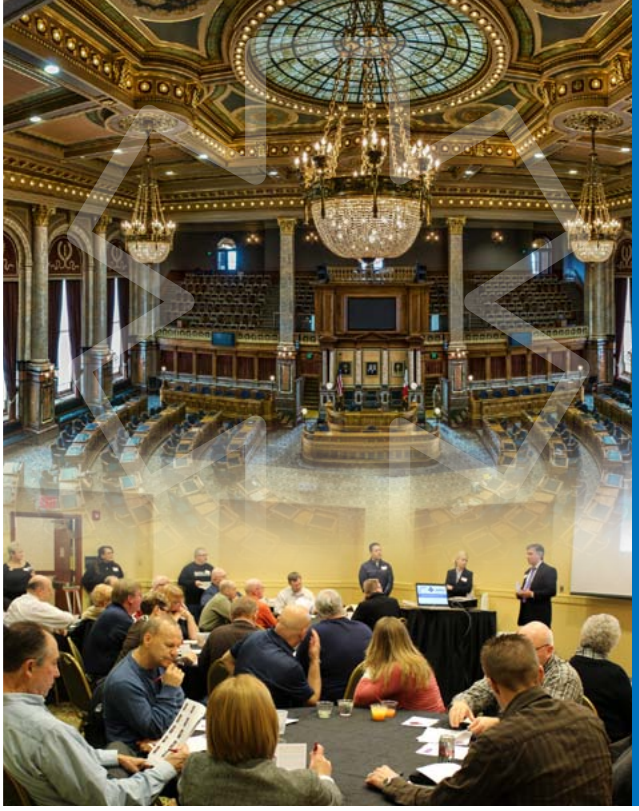
> SF 2071 and HF 2076 - Both bills increase the amount of the Volunteer EMS and Fire Income Tax credit. The Senate version, sponsored by Sen. Mary Jo Wilhelm, increases the credit from $50 to $100. The House version, sponsored by Reps. Bobby Kaufmann, Jarad Klein, Brian Moore, Mark Lofgren, Quinton Stanerson, Dean Fisher, Cecil Dolecheck, Lee Hein, Josh Byrnes and Dave Maxwell, increases the credit from $50 to $500. IEMSA supports both bills, and is encouraged that there are bills introduced in both chambers.

> IEMSA has had lengthy discussions with Appropriations committee members in both chambers on two significant issues:

- **> IEMSA supports an increase in Medicaid reimbursement,** as Iowa providers still rank below the Midwest average.
- **> IEMSA also supports the budget request of the Iowa Department of Public Health for additional software** and hiring two regional coordinators.

IEMSA SERVICE DIRECTORS' MEETING

On January 29, 2014, the night before EMS Day on the Hill, IEMSA hosted a Service Directors meeting, complete with pizza and refreshments, which was attended by approximately 40 individuals. Some great networking occurred, as well as a briefing by Mike Triplett, IEMSA Lobbyist, to prepare those in attendance for the lobbying efforts the next day.



› In addition, **IEMSA introduced its newest lobbyist, Lynzey Kenworthy.** An attorney from Des Moines with previous lobbying experience, Lynzey will assist Mike for what we hope will be a very positive and productive legislative session for our association.

› Jerry Ewers, IEMSA President, also reviewed the **IEMSA presentation that was given to the Interim Legislative EMS Study Committee on November 6, 2013,** and discussed the October 2013 EMS Provider survey results used to create the presentation. It was noted that the Final Report, Draft Approval Pending, was released for the EMS Study committee, but without specific recommendations.

› **At the close of the meeting, there was general interest in continuing to meet the evening prior to scheduled IEMSA events, with a request to name the group the "IEMSA Networking and Best Practices" meeting** to attract an even greater attendance. This group plans to meet the evening before IEMSA's first Pediatric Conference, scheduled for Saturday, February 22, 2014 in Coralville; time and location details to follow.

SPECIAL THANKS TO OUR EVENT SPONSOR :

IEMSA LEADERSHIP CONFERENCE

An outstanding 2014 Iowa EMS Association Leadership Conference was held on January 30, 2014, at the Drury Hotel Conference Center in West Des Moines, IA. Attended by 85 individuals, participants enjoyed a great day of information from three great presenters, in addition to tremendous networking opportunities.

After kicking the morning off at the EMS Day on the Hill event at the Capitol, Rebecca Curtiss started the conference off with an Iowa Department of Public Health Bureau of EMS Update. Following that, Ms. Curtiss engaged the group in interesting discussion during her nexta presentation, **"The Future of Community Paramedicine."** Ms. Curtiss, the Bureau Chief for the Center for Disaster Operations and Response, as well as Interim Bureau Chief for the Iowa Department of Public Health, Bureau of EMS, challenged conference participants to understand the scope of Community Paramedicine, and discussed how Accountable Care Organization requirements can frame a Community Paramedicine program.

> The next speaker, Michele Smith, is the founder of PCC, Inc**., an ambulance billing service.** Credentialed as a Certified Healthcare Billing Management Executive (CHBME), Michele discussed **"Ambulance Billing & Reimbursement Outlook for 2014,"** noting the impact that the Affordable Care Act could have on sustainable revenue for EMS providers. Michelle delivered a wealth of information regarding the new ICD-10 implementation and compliance guidelines in addition to providing all in attendance with some excellent reference materials.

> The final presentation of the day on **"Lobbying and Advocacy"** was delivered by Michael Triplett, IEMSA Legislative Counsel. As IEMSA's lobbyist for the past 9 years, Mike's 18 years of experience at the Capitol was very evident as he relayed the historical and constitutional basis for lobbying and advocacy. The importance the existence of a strategy to stay on message and in contact with lawmakers was stressed, as well as specific methods for EMS providers to utilize to engage with their state legislator.

> On behalf of the Iowa EMS Association, we thank the speakers who delivered outstanding presentations, as well as those conference participants who spent the day learning what the future holds for emergency medical services in not only our state, but our nation.

DUBUQUE SUMMITT
DECEMBER 14, 2013

A group of approximately 50 EMS Providers attended an EMS Forum featuring Senator Jeff Danielson and former Senator Tom Hancock at the Dubuque County Firefighters Emergency Response Training Center on December 14, 2013, hosted by Ric Jones of Northeast Iowa Community College.

Other legislators in attendance at this important event included Senator Pam Jochums, Representative Nancy Dunkel and Representative Charles Isenhart.

> Those from our profession who attended this meeting comprised a richly accurate cross section of EMS service delivery in our state, and following opening remarks by Senator Danielson and former Senator Hancock, common themes of concern were quickly identified. **Calling EMS a "forgotten service" in the state of Iowa, Senator Danielson sparked discussion after saying that most Iowans might be surprised to know that emergency medical services are not "required" in our state.** Some issues raised by the group included the growing impact of baby boomers, declining volunteerism, difficulties with transition requirements, initial certification, and certification renewal, in addition to the **prevailing concern that Iowa Code states that EMS "may," rather than "shall" be provided in our state.** The need for advocacy and teamwork resonated as recommendations, with consideration of EMS regionalization and partnerships as a possible means for sustainability and overall survival.

EMS BUREAU UPDATE

BY REBECCA CURTISS: IDPH—INTERIM EMS BUREAU CHIEF

THE BUREAU OF EMS CONTINUES TO EXPERIENCE TRANSITIONAL CHANGES. As reported in the last edition of The Voice the Bureau is now under the Division of Acute Disease Prevention and Emergency Response and Environmental Health (ADPER & EH) division under the direction of Ken Sharp *(pictured right)*. Rebecca Curtiss is continuing to serve as the interim bureau chief for EMS/Trauma in addition to her role as CDOR Bureau Chief. **Staff changes and additions:**

- **Diane Williams:** currently an Executive Officer in CDOR is taking an active role in the Trauma Program. Diane will be working closely with Janet Houtz, Trauma Coordinator to provide additional staff time and attention to the program.
- **Cindy Heick:** transferred from EMS to a program planner position in CDOR. Cindy will be serving as a coalition point of contact in the preparedness program. The position in EMS will be filled as soon as approved.
- **Rebecca Swift:** transferred to another position in the Department. The Coverdell responsibilities are being temporarily reassigned in CDOR. The position will be filled as soon as approved.
- **Katie Linn:** transferred to another position in the Department. Linda Pike and Jane Barker are currently administrative assistants in CDOR and have been assigned the EMS duties previously filled by Katie.

Do not hesitate to contact Rebecca Curtiss for any questions or concerns related to EMS staffing.

The Electronic Payment option is complete and currently available to accept on-line payment for re-certification. The system also allows the provider to print certifications directly from the web site and integrates the State's Authorization and Authentication (A&A) function to improve security of provider information. Do not hesitate to contact the bureau staff for continued problems accessing or utilizing the on-line services.

As discussed in the last edition of The Voice, **the EMS and Trauma Registry software systems are aged and in need of significant upgrades or replacement.** The Bureau submitted a legislative budget request for funds to replace these systems. In mid-February the Department released an official system user Request for Information (RFI) to allow users the opportunity to provide input regarding optimal system requirements. The Bureau received numerous excellent responses to the RFI. The competitive bid-Request for Proposal (RFP) for the system is expected to be released by the end of February.

The EMS Bureau will continue to provide updates through this publication and through the bureau website http://www.idph.state.ia.us/ems/

MEDICAL DIRECTOR UPDATE

BY DR. FORSLUND: IEMSA MEDICAL DIRECTOR

This year a new protocol for shock syndromes has been added to the Iowa Statewide EMS Protocols. Shock, or hypoperfusion, is decreased effective circulation causing inadequate delivery of oxygen to tissues.

Signs of early (compensated) shock include tachycardia, poor skin color, cool/dry skin, and delayed capillary refill. Systolic blood pressure is normal in early shock. In late (decompensated) shock, perfusion is profoundly affected. Signs include low blood pressure, tachypnea, cool/clammy skin, agitation, and altered mental status. The protocol applies to anywhere along the spectrum of early and late shock.

When you encounter a patient with findings of shock you need to determine the most likely cause of shock. Hypovolemic shock (loss of fluid/blood) is most common. This is usually from bleeding or fluid loss due to vomiting and diarrhea. Distributive shock (loss of vascular tone) may be from sepsis, anaphylaxis, or spinal cord injury. Cardiogenic shock is from failure of the heart pump. The most common cause in adults is acute MI or CHF. Obstructive shock is caused by the blockage of blood flow by something like a blood clot in the lung or increased pressure in the chest by a pneumothorax.

Here are some scenarios that you may encounter.

- You have responded to an accident call. You find a 35-year-old male who fell through a glass door and cut his left arm. He is still bleeding and is covered with a lot blood. The BP is 90/60, pulse 140, respiration is 18 BPM. He denies any medical problems, takes no medications, and has no allergies. He ate 3 hours ago. Pulse oximeter reading is 98%. (hypovolemic)
- You have responded to a medical call. You find a 72-year-old male who is complaining of chest pain and shortness of breath that began an hour ago. He is pale and diaphoretic. BP is 80/50, Pulse 130 and irregular, Respiration 28 BPM. Pulse oximeter is 88%. He has a history of heart disease and has had two myocardial infarctions in the past. (cardiogenic)
- You have responded to a trauma call. You find a 30-year-old male who has fallen from a scaffold. He is alert and oriented and complaining of pain in his lower neck. BP is 80/50, Pulse 70, Respiration 14 BPM. Pulse oximeter is 92%. He is unable to move below the neck. (distributive/neurogenic)
- You have responded to a trauma call. You find a 27-year-old male who has fallen from a scaffold. He is alert and oriented and complaining of chest pain and shortness of breath. BP is 80/50, Pulse 140, Respiration 30 BPM. Pulse oximeter is 85%. He has distended neck veins and decreased breath sounds on the right side. The chest is hyper-resonant on the right side.

  (obstructive)

Pre-hospital EMS Treatment

For hypovolemic shock basic treatment involves avoiding further heat loss, splint extremities as needed. Follow the hemorrhage control protocol controlling bleeding with direct pressure. Large gaping wounds may need application of a bulky sterile gauze dressing and direct pressure by hand. Consider application of tourniquet if unable to control hemorrhage with direct pressure. Advanced care involves establishing IV/IO access and administer 20 ml/kg, up to 500ml, NS or LR. If available, administer warm fluids. Repeat the fluid bolus as needed to maintain a systolic pressure of 90 – 100 mmHg.

>>> CONTINUED ON **PAGE 13**

>>>CONTINUED FROM **PAGE 16**

For cardiogenic shock basic care involves place the patient in position of comfort. If capability exists, obtain a 12-lead EKG and transmit it to the receiving facility and/or medical control for interpretation prior to patient's arrivalAdvanced care involves establishing IV/IO access , obtaining a 12-lead EKG , and administering dopamine IV or IO at 10-20/mcg/kg/min.

For obstructive shock the type that could be treated prehospital by advanced care is a tension pneumothorax. The tension pneumotharax can be treated with needle decompression. Pulmonary embolism and cardiac tamponade involve supportive care.

For distributive/neurogenic shock there are several things to consider. Basic care includes keeping the patient supine and keeping the patient from getting cold. Advanced care for neurogenic shock includes a fluid bolus first followed by a dopamine drip if the fluid bolus is not successful. If the patient has bradycardia and hypotension consider atropine or transcutaneous pacing.

For distributive/anaphylactic shock administer epinephrine 1:1,000 concentration 0.01 mg/kg IM, up to a single dose of 0.5 mg. Maximum total dose 1 mg. Administer diphenhydramine 25 – 50 mg IV/IM for an allergic reaction. Administer albuterol 2.5mg by nebulizer if respiratory distress/ wheezing. Evaluate need for early intubation if severe anaphylaxis. For cases of severe anaphylaxis consider administration of epinephrine 1:10,000 concentration 0.3 mg - 0.5 mg IV/IO slowly over 3-5 minutes.

For distributive/septic shock basic care involves maintaining oxygen saturation between 94% - 99%, placing the patient in supine position and if the temperature is over 102 F/38.9 C, cool patient off with cool sponges.Advanced care guidelines include administering 20 ml/kg, up to 500ml, NS or LR. Repeat the fluid bolus as needed to maintain a systolic pressure of 90 mmHg. If the temperature is over 102 F/38.9 C, cool the patient. Consider administering dopamine at 10-20 mcg/kg/min IV or IO. Consider administering diphenhydramine 25 – 50 mg IV/IM

If you have a patient with shock this new protocol will help direct your response to their shock situation.The EMS Bureau will continue to provide updates through this publication and through the bureau website http://www.idph.state.ia.us/ems/

DOUG WOLFBERG WILL PLAY HIS GUITAR to Celebrate our 10th Anniversary

Billing & Management CONFERENCE · MAY 1st, 2014

BETTENDORF • ISLE OF CAPRI HOTEL & CASINO

NAAC National Academy of Ambulance Coding — CEU Approved

CEs FOR EMS BILLING MANAGERS AND CERTIFIED AMBULANCE CODERS

PRESENTED BY DOUG WOLFBERG:

- Write offs, Reductions & Compliance
- Benchmarking your Billing Operations
- 5 Things that are on the Governments Radar
- 2014 Medicare Billing & Reimbursement Update
- We screwed up on billing - now what.
- Accounts Receivable Management—How well should you be doing.
- Audit Bait : How Ambulance Services Get on Medicares Radar

SPONSORED BY:

LIFEQUEST Services

IEMSA LEGISLATIVE NOTE : This tax credit is one of the IEMSA Legislative Talking Points : *Increase the Volunteer EMS/Fire Tax Credit from $50 to $500.* **Watch the IEMSA website for updates.**

TAX YEAR 2013 : VOLUNTEER TAX CREDIT

Volunteer Firefighter & Emergency Medical Services Personal Tax Credit Information for Tax Year 2013
(returns filed in 2014)

For tax years beginning on or after January 1, 2013 the Volunteer Firefighter and EMS Personnel Tax Credit will be available for volunteer firefighters and volunteer EMS personnel. In order to qualify for the credit the taxpayer must meet the conditions listed below.

QUALIFYING CONDITIONS

> For Volunteer Firefighters:

> Must be an active member of an organized volunteer fire department in Iowa.

> Must meet the minimum training standards established by the Fire Service Training Bureau, a division of the Iowa Department of Public Safety.

> Full-time firefighters, who volunteer as a firefighter for a department other than the one where they are employed, ARE NOT eligible for the credit for that volunteer work.

For Volunteer Firefighters:

> Must be an active member of an organized volunteer fire department in Iowa.

> Must meet the minimum training standards established by the Fire Service Training Bureau, a division of the Iowa Department of Public Safety.

Full-time firefighters, who volunteer as a firefighter for a department other than the one where they are employed, **ARE NOT eligible for the credit for that volunteer work.**

For Volunteer Emergency Medical Services Personnel:

> Must be trained to provide emergency medical care, certified as a first responder, and been issued a certificate by the Iowa Department of Public Health.

> Full-time EMS personnel, who volunteer as an EMS for a department other than the one where they are employed, ARE eligible for the credit for that volunteer work.

NOTE: *Volunteers who receive small stipends/reimbursements, and who may receive a W-2 or 1099, still qualify for the credit.*

AMOUNT OF THE TAX CREDIT

The tax credit equals $50 if the volunteer serves for the entire calendar year 2013. If the volunteer does not serve the entire year, the $50 credit will be prorated based on the number of months that the volunteer served. If the volunteer served for a portion of a month, that will be considered as an entire month. The table below provides the qualifying amount of tax credit by months of service for the year.

If an individual is both a volunteer firefighter and volunteer EMS personnel, the credit can only be claimed for one volunteer position.

Number of Months of Service	Amount of Tax Credit	Number of Months of Service	Amount of Tax Credit
1	$4	7	$29
2	$8	8	$33
3	$13	9	$38
4	$17	10	$42
5	$21	11	$46
6	$25	12	$50

WRITTEN STATEMENT REQUIREMENTS

Taxpayers claiming the tax credit are required to have a written statement from the fire chief or other appropriate supervisor verifying that the individual was a volunteer for the number of months that are being claimed. These letters do not have to be attached to a filed return, but must be produced by the taxpayer upon request by the Department of Revenue (IDR). It is recommended that the statement contain the following information: Volunteer Name, Fire Department or EMS Service Name, Number of Months of Service for the Year, Amount of Qualifying Credit, and the Name, Title, and Signature of the official authorizing the credit.

RECORDKEEPING RECOMMENDATIONS

It is also recommended that volunteer fire departments and EMS services maintain a record of the letters that are authorized in the event that IDR requests a list of authorized credit recipients. It is recommended that these lists be kept for at least three years.

For additional information, please see http://www.iowa.gov/tax/educate/Firefighter_EMS_Credit.html

SPOTLIGHT ON TRAINING

MARY GREELEY MEDICAL CENTER

GREETING FROM THE MARY GREELEY MEDICAL CENTER EMS TRAINING CENTER located in Ames, Iowa!

Our EMT program is the only EMT training program in the state of Iowa taught by full-time paramedics with clinical, classroom, and lab facilities all located on-site. All instruction is conducted and coordinated by professional members of our Mobile Intensive Care Service department and supported by skills coaches from the greater Ames and Story County area. Historically, our students have achieved a success rate for passing the National Registry Certification Examinations that is above both the state and national averages.

> **Due to course content, curriculum changes and demand, the EMT course has recently been changed to a once-per-year offering that has been expanded over the course of the winter season.** Typically the course begins in December and ends in mid-April. I expect to have registration for next December open by March 1st of this year. Tuition for the program next December will be $1100 and includes tuition, textbook and the NREMT Practical testing fee (Computer-adaptive and State of Iowa registration fees are not included).

>In addition to the EMT course, the **Mary Greeley EMS Training Center sponsors community education for both formal and informal CEH activity.** Courses are varied and are taught by State of Iowa- endorsed EMS Instructors. Please inquire about specific needs for topic areas or specific certifications. Our training center includes instructors certified to teach BLS, ACLS, PALS, PEARS, MOAB, AVADE, and PHTLS in addition to a virtually unlimited list of EMS topics. Please contact our office or visit our website for more information on course offerings.

>Finally, I would like to announce that in addition to our **annual UPDATE conference** (being held February 28th – March 2nd this spring), we will be offering a **40-hour Iowa EMS Instructor course this spring—beginning on the 5th of March** and running for 10 weeks on Wednesday evenings.

>If you have further questions about our training program or would like further information, please visit our website at: http://www.mgmc.org and check out the "classes and events" tab. From there, click on the picture of the ambulance to reach our EMS training center website.

Darin E. Ruud, BA, Paramedic, EMT Program Coordinator, MICS—Mary Greeley Medical Center, 1111 Duff Ave. Ames, IA 50014, ruud@mgmc.com, (515) 239-2109

Changes of

SHOCK MANAGEMENT

BY DARIN E.RUUD, BA. PARAMEDIC

Recently in EMS there have been many changes in the way we treat and manage patients. The buzz-word of choice as of late in medicine has been "evidence-based practice". Because of this principle, we have learned that what we have assumed to be beneficial for our patients on a theoretical level in the past has not stood up to the test when actually researched. Some of these practices have even been found to be harmful-- sometimes to a great degree, rather than helpful. Examples are not hard to find and some better-known ones are the realization of the provider-induced state of hyperoxia for most patients in and out of the hospital, the use of immobilization devices in EMS, and general shock management—the focus of this article.

Shock and shock management has been broken down and categorized into different groups. For the sake of understanding, I offer the following groups, categories and other definitions for ease of discussion...

Shock: A condition in which body tissue is in a state of hypoperfusion. For the sake of this article, we will presume that systemic shock is present—rather than localized hypoperfusion which could otherwise be defined as ischemia. Recall as well that the condition of shock is due to a failure of one or more parts of the circulatory system's primary three components—being pump, pipes, or fluid.

Hypovolemic Shock: Is the condition of shock due to a decreased volume of fluid within the body. Hemorrhagic shock would be then a special subset of hypovolemia specific to decreased blood within the vessels of the body.

Distributive Shock: Involves a dilation of the blood vessels and relative decrease in fluid volume available for pumping leading to shock. Distrubutive shock includes the subsets of septic shock and neurogenic shock.

Obstructive Shock: Is shock due to the obstruction of the great vessels of the body, vessels to the heart, or within the heart itself. Pulmonary emboli and cardiac tamponade are two commonly used examples. Obstructive shock can be grouped in with either a pump or, more commonly, a pipes problem.

Cardiogenic Shock: Is due to the inability or difficulty of the heart to pump blood. Cardiogenic shock can be due to a disease process such as congestive heart failure or due to an acute event—specifically an extrinsic or intrinsic injury to the heart.

Since before the evolution of modern EMS until recently (or even currently for a majority of EMS systems), we have all been taught to treat shock in some similar fashion involving a few BLS procedures. Typically, for the majority of us, we know the "shock potion" includes keeping the patient warm and covered, giving the patient supplemental oxygen, and raising the adult patient's feet about 12 inches or so to achieve the Trendelenburg position. We, as providers and evaluators, have tested and been tested on this treatment and until recently, our textbooks and credentialing exams have reflected this as the standard of care. Only recently, when we put theory to the test, have we discovered that the theory does not necessarily produce the desired or intended results. Thanks to "evidence-based practice" we can look a little more closely at our "standard of care"...

First off, we do not change just for the sake of change. Because we have not yet found an evidence-based alternative, we should not abandon the treatment modality already in use. We should instead concentrate on researching and implementing improved and proven alternatives that are tried and tested.

For example, the recent changes in the American Heart Association's Guidelines for Resuscitation Science and care involving ACS and stroke were not implemented based on a few observational studies, if you look at the science, the first studies suggesting the over-use of oxygen go back almost as far as modern EMS—back to the 1970's[1]. We should then be cautious but determined in our implementation of effective treatments related to better management of our patients in order to afford them the best chance for a positive outcome. Having said this, let's look at what we've historically done for our trauma and shock management...

"We should concentrate on researching and implementing improved and proven alternatives that are tried and tested."

>>> CONTINUED ON **PAGE 13**

>>>CONTINUED FROM **PAGE 12**

Keep the Patient Warm and Covered: Although actual research on this may be raw and not exactly precise for EMS application, we can see that in keeping patients cool has negatively affected their short-term and long-term outcomes in operating room settings[2]. Since that time, more evidence specific for trauma (and therefore more applicable to EMS?) has come along suggesting that keeping the patient warm lowers both morbidity and mortality in patients[3].

Provide Supplemental Oxygen: As discussed in any recent American Heart Association course you may have taken recently, the over-use and super-therapeutic amount of oxygen that we have given as healthcare providers has been proven to cause more harm than good to various tissues of the human body. Well documented studies have determined that super-therapeutic doses of oxygen subsequently lead to free-radical accumulation within the blood and tissue damage by small-vessel vasoconstriction and subsequent systemic and peripheral tissue hypoperfusion[4]. More recently, many other specialties have studied the effects of free-radical oxygen and the negative effect it has on various body tissues. It will be interesting to see then, if oxygen therapy becomes adventitious for those patients for whom vasoconstriction would be beneficial. Such instances may include cases of hemorrhagic shock (particularly in crush injuries) and cases of distributive shock (especially sepsis—where vasodilatation is the primary mechanism of decompensation).

Placing the Patient in Trendelenburg's Position: Historically it was believed that this position raised preload and therefore it would raise blood pressure. Ironically, Trendelenburg's position was never intended for its most common application. It was instead used for a surgical positioning for the patient[5]. Instead, what we have found is that this position often times complicates breathing and leads to increased intracranial pressures and refractory hypotension that is often more pathologic than the initial presentation[6]. Consider instead the semi-Trendelenburg's [See Figure 1] position whereby the feet and the head are both elevated to the same degree. This elevates the conditions of the head being lower than the heart, the majority of baroreceptors in the aortic arch and in the neck being compressed by dependant pressure from gravity, and the abdominal organs pressing upwards against the lungs causing respiratory compromise. Obviously a semi-Trendelenburg's position is not conducive with historical methods of securing to a long board, but is in line with the idea that currently we are probably over-utilizing LSBs in the EMS industry to a great degree[7].

Finally, it's important to look back at the very definition of shock. We have spent this whole time in the discussion of treatment modalities and some pitfalls associated with the practice of these models but we have yet to truly define what shock is besides just referring to it as "tissue hypoperfusion". Let's look back at what we've already been told for years once again...

Shock has three distinct stages according to what we have all learned in the past:

The first stage of shock is called the compensated shock stage. During the compensated shock stage, it may be difficult or impossible to tell whether or not an individual is actually in distress. The patient's pulse will be elevated and the patient may seem anxious and possibly even tachypneic. For this reason, the compensated state of shock in children is commonly overlooked and lends to the belief that "children will be acting just fine one minute and then a minute later, they'll just crash." It is for this reason especially that you should be able to recognize the first stage of shock in order to prevent the patient from entering the second stage.

Next for discussion but not next in order is the third stage of shock which is commonly referred to as irreversible shock and, as its name implies, is a condition from which little hope is usually reserved for a favorable outcome. By this time the Triad of Death (hypothermia, coagulopathy and acidosis) is in full swing and even if heroic measures are taken and the patient is somehow stabilized, the long-term outcome will usually be grave and always be complicated.

The second stage of shock is often the most worrisome and talked about stage. Worrisome because the patient is likely to proceed to irreversible shock if not treated appropriately and talked about because of the impact that we as providers can potentially make to prevent the patient from proceeding to a worse condition. The determining factor, of course, between compensated and decompensated shock is the blood pressure. But wait—what about the blood pressure? What is the line that divides the patient between the compensated and decompensated.

Historically, all of us have been trained to recognize clinically significant hypotension to be anything less than 90 mm of mercury (worked well for years due to the peripheral pulse means systolic > 80 thing). In the more recent years and months, we have been otherwise trained to identify any adult with a mean arterial pressure ≥ 65 mm mercury and a small child with a MAP of ≥60 mm of mercury as having adequate perfusion [See Figure 2]. For most applications, the MAPs of 65 and 60 worked very well as guidelines. Something interesting has happened when we looked at some trauma studies recently, however.

Due to the availability of research as provided by the military due to the unfortunate number of trauma patients as related

>>>CONTINUED ON **PAGE 14**

CHANGES OF SHOCK MANAGEMENT

>>> CONTINUED FROM **PAGE 13**

to the wars in the Middle East, we have observed that allowing hypotension to manifest on its own in certain circumstances has led to better outcomes for soldiers in some circumstances. This idea has led us to the implementation of what is referred to in some protocols as "Permissive Hypotension". Permissive Hypotension is currently being investigated and studied but what has been discovered thus far is compelling...

Mean Arterial Blood Pressures as low as 50 mm of mercury have been permitted and found to be beneficial in some circumstances when compared to the aggressive fluid resuscitated patients—particularly for individuals suffering from hemorrhagic shock and in another study, particularly when suffering from penetrating abdominal trauma[8 9]. Mean Arterial Pressures at the low end of "standard" acceptable ranges (65 mm mercury) have been demonstrated to improve morbidity and mortality as compared to higher blood pressures in the absence of a brain injury as well.[10]

(It is important to note that many of the subjects in these studies were young and otherwise healthy individuals without a great deal of co-morbid factors. In at least one of these studies it was found that pre-existing hypertension negates the benefits seen in that same permissive hypotensive study).

Finally, the pulse pressure itself is an indicator of shock. A normal resting pulse pressure should be at least 30 mm of mercury. Once the pulse pressure drops to less than 25 mm of mercury and certainly as the pressure gets close to 20 mm of mercury, a state of shock is likely.

In summary, what have we learned from the evidence-based research that has made itself apparent in recent years and otherwise told us we need to change the way we look at not only shock management but also many other aspects of EMS? It should tell us that we need to be open-minded, vigilant, informed and flexible when presented with change that has been proven to be of benefit to our patients' well-being through the implementation of evidence-based practice models as proven by data and as approved by the medical community and medical direction.

(Endnotes)

1 Clark, John M (1974). "The toxicity of oxygen". American Review of Respiratory Disease 110 (6 Pt 2): 40–50.

2 Perioperative Normothermia to Reduce the Incidence of Surgical-Wound Infection and Shorten Hospitalization Andrea Kurz, M.D., Daniel I. Sessler, M.D., and Rainer Lenhardt, M.D. for the Study of Wound Infection and Temperature Group. N Engl J Med 1996; 334:1209-1216 May 9, 1996

3 The trauma triad of death: hypothermia, acidosis, and coagulopathy. AACN Clin Issues. 1999 Feb;10(1):85-94. Mikhail J.

4 Revisiting the role of oxygen therapy in cardiac patients. J Am Coll Cardiol. 2010 Sep 21;56(13):1013-6. doi: 10.1016/j. jacc.2010.04.052. Moradkhan R, Sinoway LI.

5 http://lifeinthefastlane.com/trendelenburg-position-for-the-hypotensive-patient-friend-or-foe/

6 Trendelenburg Positioning to Treat Acute Hypotension: Helpful or Harmful? Clinical Nurse Specialist. 21(4), 181-188. Shammas, A. & Clark, A. (2007).

7 http://www.emsworld.com/article/10964204/prehospital-spinal-immobilization

8 Hypotensive resuscitation during active hemorrhage: impact on in-hospital mortality. The Journal of Trauma 52 (6): 1141–6 Dutton, RP; MacKenzie, CF; Scalea, TM (2002).

9 Haut ET, et al. Ann Surg. 2011, 253:371-7

10 The role of secondary brain injury in determining outcome from severe head injury. J Trauma 1993;34:216–22. Chesnut RM, et al.

CHANGES OF

SHOCK MANAGEMENT—Continuing Education Quiz

IEMSA members can earn 1 hour (1CEH) of optional continuing education credit by taking this informal continuing education quiz. You must answer questions 1 through 10, and achieve at least an 80% score.

Deadline: JUNE 30, 2014

Complete this Quiz and:

- **mail to** 5550 WILD ROSE LANE, STE. 400 WEST DES MOINES, IA 50266
- **fax to** (877) 478-0926
- **or email to** administration@iemsa.net

1. The BEST definition of shock would be...

- **A.** low blood pressure or "Hypotension".
- **B.** Localized tissue ischemia.
- **C.** A syncopal or near-syncopal event.
- **D.** Tissue hypoperfusion.

2. Septic Shock would most appropriately be placed in which main category?

- **A.** Hypovolemic Shock
- **B.** Distributive Shock

Cardiogenic Shock

- **D.** Obstructive Shock

3. Compared to the historic model of shock management, which of the following treatments has been demonstrated as beneficial in general shock management by the use of imperial evidence.

- **A.** High-flow oxygen administration
- **B.** Trendelenburg's Position
- **C.** Preserve heat and cover the patient
- **D.** Aggressive fluid therapy

4. With regard to anatomy, in which of the following areas of the body would you most likely find a relatively high concentration of baroreceptors?

- **A.** The aorta
- **B.** The pelvis
- **C.** The lower leg
- **D.** The brachial area of the arm

5. Which of the following is a likely explanation of why a provider may report that a child had "such a short compensated stage" of shock.

- **A.** Children tend to progress quickly to decompensated shock.
- **B.** The compensated stage of shock is often missed upon assessment.
- **C.** Children often present with irreversible shock as their assessed state.
- **D.** Hypovolemic shock in children is a rare finding.

6. Which of the following is NOT a component of the "Triad of Death"?

- **A.** Hypothermia
- **B.** Bradycardia
- **C.** Coaguopathy
- **D.** Acidosis

7. In order to approximate the Mean Arterial Pressure you would need to...

- **A.** Divide the pulse pressure by 3 and add the result to the diastolic reading.
- **B.** Average the pulse pressure and multiply by the heart rate.
- **C.** Divide the pulse pressure by three and add the result to the pulse.
- **D.** The MAP can only be determined by the use of an automated BP reading.

8. The MAP of a patient with a blood pressure of 90/60 and a pulse of 76 would be...

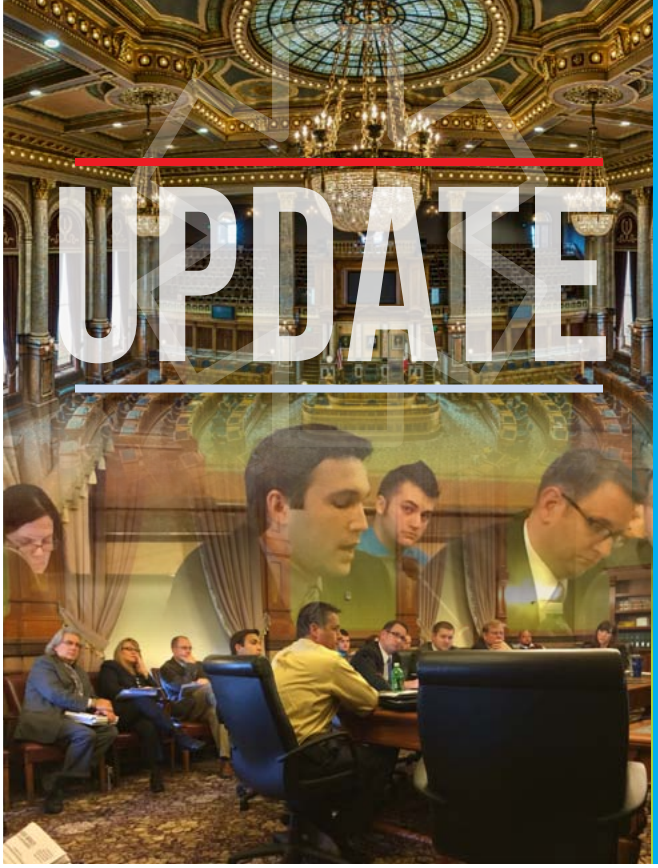
- **A.** not obtainable from the information provided.
- **B.** approximately 106 mm Hg
- **C.** approximately 186 mm Hg
- **D.** approximately 70 mm Hg

9. In otherwise healthy individuals, MAPs of pressures down to ___ have been associated with favorable outcomes under the guidelines of some "permissive hypotension" studies.

- **A.** 90 mm Hg
- **B.** 70 mm Hg
- **C.** 50 mm Hg
- **D.** 30 mm Hg

10. A pulse pressure of less than ___ is indicative of a high probability that shock is present.

- **A.** 25 mm Hg
- **B.** 30 mm Hg
- **C.** 35 mm Hg
- **D.** 40 mm Hg



The Iowa Legislature's Emergency Medical Services Study Committee FINAL REPORT *(Approval Pending)* AVAILABLE

In previous issues of "The Voice," we reported that while Governor Branstad vetoed the creation of the Public Safety Training and Facilities Task Force, the Iowa Legislative Council approved the establishment of an Emergency Medical Services Study Committee on July 18, 2013. This committee was charged with researching the current status of Iowa's emergency medical services, as well as providing recommendations to ensure the future availability of emergency medical services statewide. This bipartisan group was composed of five members each from the Senate and House, and met at our state Capitol and met on November 6 and 7, 2013. An Final Report (pending approval) is now available in the last pages of this newsletter (click here to read it now) and online at: http://iemsa.net/pdfs/EMS_study_committee/Draft_Approval_Pending_FINAL_REPORT_EMS_Study_Committee_January_2014.pdf

The members of this committee included:

IOWA STATE SENATORS

Sen. Mary Jo Wilhelm, *(D-Cresco)*, **Co-Chair**

Sen. Steve Sodders *(D-State Center)*

Sen. Rich Taylor *(D-Mount Pleasant)*

Sen. Jake Chapman *(R-Adel)*

Sen. Michael Breitbach *(R-Strawberry Point)*

IOWA HOUSE REPRESENTATIVES

Rep. Ralph C. Watts, Co-Chair *(R-Adel)*, **Chair**

Rep. Bobby Kaufmann *(R-Wilton)*

Rep. Todd Prichard *(D-Charles City)*

Rep. Sandy Salmon *(R-Janesville)*

Rep. Art Staed (D-Cedar Rapids)

FINAL REPORT

DRAFT
Approval Pending

Emergency Medical Services Study Committee

January 2014

MEMBERS:

Senator Mary Jo Wilhelm, Co-chairperson
Senator Michael Breitbach
Senator Jake Chapman
Senator Steven J. Sodders
Senator Rich Taylor

Representative Ralph C. Watts, Co-chairperson
Representative Bobby Kaufmann
Representative Todd Prichard
Representative Sandy Salmon
Representative Art Staed

Staff Contacts:

Nicole Hoffman, Legal Editor,
(515) 281-6329
nicole.hoffman@legis.iowa.gov

Michael Duster, Legal Counsel,
(515) 281-4800
michael.duster@legis.iowa.gov

Contents:

AUTHORIZATION AND APPOINTMENT

The Emergency Medical Services Study Committee was created by the Legislative Council for the 2013 Legislative Interim and authorized to hold two meetings. The charge of the committee was to research the current status of Iowa's emergency medical services (EMS) and make recommendations to ensure the future availability of EMS statewide. The committee was required to consult with stakeholders in conducting the study.

I. Proceedings

The committee met on Wednesday, November 6, 2013, and Thursday, November 7, 2013, to hear testimony from various EMS experts and interested parties and received public comment. The committee did not make recommendations.

II. Bureau of Emergency Medical Services, Iowa Department of Public Health

Mr. Ken Sharp, Division Director for Acute Disease Prevention, Emergency Response, and Environmental Health, Ms. Rebecca Curtiss, Interim Emergency Medical Services (EMS) Bureau Chief, and Mr. Joe Ferrell, EMS Regulations Manager, provided an overview of the EMS Bureau structure and role in regulating EMS throughout the state.

Ms. Curtiss discussed the recent reorganization within the Iowa Department of Public Health (department), including a reorganization of the EMS Bureau. Ms. Curtiss was named interim bureau chief on September 23, 2013. Following the reorganization, the EMS Bureau consists of 11 full-time staff, of which 5.5 are funded through state resources. The additional 5.5 positions are funded through other sources, primarily federal grants. Ms. Curtiss outlined the EMS Bureau's areas of responsibility for coordinating and implementing the provision of emergency medical services in this state.

Ms. Curtiss discussed the EMS Bureau's staffing and budget reductions that have occurred over the past five years. During that time, the EMS Bureau's staffing level has been reduced by 3.3 employees and the EMS Bureau currently employs only one clerical staff person. The number of regional coordinators has been reduced from six to four. Mr. Ferrell identified short-term delays in inspections as one consequence of the reduction in regional coordinators. The EMS Bureau's current operating budget, excluding the Emergency Medical Services System Development Grants Fund is $1.2 million. The EMS Bureau is no longer receiving funding from the Tobacco Settlement Fund and funding from federal grants has also decreased during that time. Ms. Curtiss also discussed the EMS Bureau's ongoing expenses relating to the maintenance of computer software packages and the bureau's efforts to move some computer support services to the Department of Administrative Services.

Mr. Ferrell provided an overview of the EMS Bureau's duties relating to the authorization and regulation of emergency medical service programs, the certification of emergency medical care providers, and the operation of training programs. Currently, the EMS Bureau is responsible for such activities for the 17 training centers, 781 authorized EMS agencies, and approximately 12,000 individual EMS providers in Iowa. Information was presented to the committee detailing the types of and requirements for authorization of EMS service programs. Authorization is required to establish a service program using certified emergency medical care providers for the delivery of care at the scene of an emergency or nonemergency, during transportation to a hospital, during transfer from one medical care facility to another or to a private home, or while in the hospital emergency department and until care is directly assumed by a physician or by authorized hospital personnel.

An overview of the new levels of certification for individual EMS providers was presented, including Iowa's recent adoption of the National Registry of Emergency Medical Technicians (NREMT) practical and cognitive examinations. Mr. Ferrell also provided information relating to how the continuing education requirements for biennial renewal of a provider's certification vary based on the level of certification.

The duties of the EMS Bureau's regional coordinators were discussed. The bureau's representatives stressed the importance of the regional coordinators' work in conducting on-site periodic inspections, providing follow-up and guidance for EMS agencies, and performing other duties relating to compliance. The EMS Bureau also has duties undertaken by a program planner relating to the Iowa Statewide Emergency Registry for Volunteers.

The bureau's representative also described the bureau's role in administering the Emergency Medical Services System Development Grants Fund, which consists of moneys appropriated by the General Assembly and other moneys available from federal or private sources. Moneys in the fund are to be used to match, on a dollar-for-dollar basis, moneys spent by a county for the acquisition of equipment for the provision of EMS and to provide grants to counties for education and training in the delivery of EMS. A list of grant amounts by county over the three previous fiscal years was distributed to the committee.

Mr. Ferrell also discussed the composition, structure, and role of the Emergency Medical Services Advisory Council (EMSAC). Mr. Ferrell discussed how the bureau has engaged and worked with the council in recent years, including during the bureau's revisions of its administrative rules relating to scope of practice.

Discussion. Members of the committee questioned the continued efficiency of the EMS Bureau following the funding and staffing cuts over the past five years. Mr. Sharp indicated that conclusions regarding the continued efficacy of the EMS Bureau could not yet be reached and that a continued review of the bureau's operations was needed.

Mr. Sharp further discussed the need to determine the EMS Bureau's role in addressing issues in the EMS industry in the future.

EMS Bureau representatives also responded to questions from the committee relating to the cost of provider certification and to what extent such costs are causing a shortage in providers, the recent modifications to scope of practice rules, and the methods of providing and approving training and continuing education. In responding to committee questions relating to the EMS Bureau's process for addressing complaints and deficiencies involving providers and services, Mr. Ferrell stated that disciplinary processes across states vary greatly and he estimated that the bureau addresses between 250 and 375 deficiency and complaint reports annually. Members of the committee also raised concerns and requested additional information relating to the data reporting requirements and run sheet collection activities of the EMS Bureau.

III. Iowa Emergency Medical Services Association

Mr. Jerry Ewers, President, and Ms. Linda Frederiksen, Vice President, from the Iowa Emergency Medical Services Association (IEMSA), provided background information on IEMSA and how EMS is provided in Iowa. Additionally, the results of an EMS provider survey were presented to the committee. The survey resulted in approximately 900 responses.

Founded in 1987, IEMSA has been actively involved in emergency medical care in Iowa. IEMSA represents 12,000 EMS providers and has a 23-member board of directors. The Iowa EMS Association has been involved in initiating and supporting EMS legislation, representing its members on task forces, advisory groups, and boards, addressing issues that affect EMS services through service director meetings and educational programs, and facilitating communication between members.

In Iowa, EMS is delivered via a variety of types of service programs including volunteer, career, hospital-based, fire-based, third-service, private, and governmental. According to data provided by the EMS Bureau, 57 percent of EMS is provided through fire departments, 16 percent is provided by private companies, 13 percent is provided through hospital services, and 14 percent is provided by public entities. In Iowa, 64 percent of EMS providers are volunteers.

IEMSA conducted a survey of EMS providers and presented the results to the committee. The data collected included the type of EMS delivery model under which the provider works or volunteers, the number of EMS agencies for which the provider works or volunteers, the education background of the provider, the age of the provider, and the number of years that the provider has been an EMS provider. IEMSA also provided a map detailing the regions of the state where the survey respondents were located.

IEMSA's survey also focused on the attitudes and concerns of EMS providers. Staffing, recruitment, and retention of EMS providers, EMS not being considered an essential service, and inadequate funding were identified most often as concerns among the survey respondents. Respondents most often identified burnout, unreasonable time commitment, and wage and benefit concerns as the reasons for allowing EMS certification to lapse. Respondents were also asked to identify the most difficult times of day for providing EMS coverage and the number of hours per day that EMS coverage was unavailable. Interfacility transports, including behavioral transports, were identified as an area of concern for EMS agencies. Most survey respondents indicated that behavioral transports caused a strain on their EMS system.

The survey also sought information on the attitudes relating to the EMS education and certification process. Seventy-six percent of respondents thought that the time spent on EMS education was reasonable. The survey also requested provider attitudes on the cost and accessibility of EMS education and continuing education resources. Respondents provided a variety of ideas to help EMS provider retention efforts, including better pay, specifying EMS as an essential service, better pension and benefit options, state and local support in funding and planning, sustainable funding sources, provider education assistance, and better development of EMS career paths. Ninety-nine percent of respondents believe that EMS should be an essential service. According to Mr. Ewers, EMS not being designated as an essential service has resulted in EMS being underfunded in order to preserve those services that have received such a designation.

Approximately 1/4 of respondents have out-of-pocket expenses of less than $100 annually. Over 1/3 of the respondents also indicated that their out-of-pocket expenses are between $100 and $500 annually. In addition, approximately 1/4 of EMS providers have annual out-of-pocket expenses between $500 and $2,000.

The survey also detailed the compensation status of EMS providers, ranging from full compensation to no compensation. The average respondent spends 59.29 hours engaged in EMS

training per year. Respondents receive an average of 44.36 hours of continuing education per year. The average survey respondent spends 23.23 hours per year raising funds for EMS. The average survey respondent spends 230 hours per year engaged as an EMS volunteer. Among respondents who work for volunteer EMS agencies, the average volunteer spends 30.56 hours fund-raising annually and dedicates 344.25 hours engaged as an EMS volunteer annually. Data was also presented on the trends in the number of EMS services and providers in the state over the last five years.

Mr. Ewers and Ms. Frederiksen also provided the written comments of EMS providers that were received as part of the survey.

IV. Emergency Medical Services Training Programs

Ms. Rosemary Adam, EMS Learning Resource Center, University of Iowa Hospitals and Clinics, and Ms. Tina Young, Southeastern Iowa Community College, provided the committee with information relating to the levels and types of training currently required for various levels of EMS providers. Iowa adopted national standards in 2011 for EMS providers. The initial educational requirements for the different levels of certification are: (1) emergency medical responder (EMR), 48-60 clock hours; (2) emergency medical technician (EMT), 150-190 clock hours; (3) advanced EMT, requiring a prerequisite EMT certification, 150-250 clock hours; and (4) paramedic, requiring a prerequisite EMT certification, 1,000-1,300 clock hours. Most educational programs have both part-time and full-time options. In terms of the number of weeks necessary to complete such courses, the EMR program typically takes 10 weeks part-time, the EMT program takes 34 weeks part-time or one month full-time, the advanced EMT program takes 40 weeks part-time, and the paramedic program takes two years part-time or 10-12 months full-time.

According to Ms. Adam, the initial costs of such education programs are as follows: (1) EMR, approximately $400; (2) EMT, approximately $1,030-$1,800; (3) advanced EMT, approximately $1,400 (following EMT prerequisite); and (4) paramedic, approximately $6,171-$12,000 (following EMT prerequisite). The estimated costs, however, do not include student fees, if applicable, or testing fees.

According to Ms. Adam and Ms. Young, the initial education for EMR, EMT, and advanced EMT can be offered in the provider's hometown, in a location such as the local fire department. The EMS Bureau is responsible for the authorization of training programs in the state. The 17 current EMS training programs are dispersed throughout Iowa, including one private college training program in Des Moines, two hospital-based training programs, and 14 community-college-based training programs. Eleven of the sites have paramedic education in the state and six sites have nonparamedic education.

The presenters also provided an overview of the continuing education requirements for the various EMS provider certifications. Such requirements include 50 percent formal classroom instruction and 50 percent informal instruction. The biennial hourly continuing education requirements are as follows: (1) EMR, 12 hours; (2) EMT, 24 hours; (3) advanced EMT, 36 hours; and (4) paramedic, 60 hours. There is a wide range of costs for formal continuing education courses, typically ranging from free to $20 per hour. Most continuing education occurs in fire departments or ambulance services and each EMS training program offers formal continuing education courses.

Discussion. Committee members questioned the current requirement that such training courses be approved and coordinated with one of the 17 approved EMS training programs. Ms. Adam and Ms. Young cited the need for structured and consistent quality assurance for the training and continuing education courses as the primary reason for requiring EMS training program approval for those courses conducted by persons other than the training programs. Committee members, however, continued to question the process of allowing the EMS training programs to establish the fees to be charged for such approved courses.

Ms. Adam detailed the 2012 enrollment and graduation data for each of the EMS certification levels in the state and described the enrollment trends in the state over the last 10 years. Areas of improvement for the EMS industry were also identified, including continued outreach to inform potential applicants in the EMS field, determining whether certain EMS provider positions should require a degree, and whether the return on investment is sufficient for those who enter the field.

Committee members inquired about the current reimbursement or financial assistance available for both initial certification and continuing education, including whether local governments reimbursed or paid for those costs, particularly for volunteers. Committee members also asked about the training programs' efforts to adapt the curriculum for military personnel who worked as combat medics. Ms. Adam indicated that because of the specific skills taught to the military combat medics and the need to teach the content covered by the national exam, the traditional training of such enrollees must be completed in its entirety.

V. Emergency Medical Services Reimbursement

Ms. Jennifer Vermeer, Director, Iowa Medicaid Enterprise, Iowa Department of Human Services, provided information to the committee relating to the reimbursement paid to ambulance providers for services provided to Medicaid members.

Medicaid managed care plans cover ambulance services through their contracts with ambulance providers. Medicaid pays a capitation payment to the managed care plan to cover all services included in the contract and the plan negotiates rates with providers. Ambulance services are provided through two contracted managed care providers, Magellan Behavioral Health (ambulance services relating to mental health or substance abuse conditions) and Meridian Health Plan (primary and preventive health care). Both managed care providers negotiate and contract with individual ambulance providers to form ambulance networks.

Medicaid contracts with and pays ambulance providers directly through Fee-For-Service (FFS) for members who require emergency medical transportation or transport because medical conditions preclude any other method of transportation. Reimbursement rates for such service are set by the Legislature's annual appropriations bill and a 10 percent increase was enacted for fiscal year 2013-2014. The Iowa Medicaid Enterprise conducts medical services and program integrity reviews.

IowaCare, the program which provides low income adults with limited health care benefits, does not cover ambulance services, but will be replaced by the Iowa Health and Wellness Program, which does cover ambulance services at the same rate as Medicaid. Medicaid providers must be enrolled as Medicare providers, have an EMS Bureau certification, sign a Medicaid provider agreement, make certain federally required disclosures, and have a verified ambulance

compliance form. Ambulance programs are designated as moderate risk programs for fraud and require an Iowa Medicaid Enterprise site visit. Ms. Vermeer also provided examples of Medicaid reimbursement rates and stated that there is an interest in changing from the Medicaid reimbursement rates to the more complex Medicare reimbursement methodology. It was noted, however, that even the Medicare reimbursement does not cover the ambulance service costs in all instances.

Under the ambulance state plan for Medicaid, for the fiscal year 2012-2013, the total Medicaid expenditure was $5.1 million, which included a total of 43,996 ambulance trips. The average number of trips per Medicaid member was approximately 2.5 trips.

VI. Public Comment and Committee Discussion, November 6, 2013

Committee members discussed whether the recent changes to the EMS certification levels and training requirements have pushed applicants into higher levels of training than what is necessary for the EMS that they are providing. Committee members raised concerns with the training availability in rural areas of Iowa and the lack of funding for reimbursement of training for EMS providers, particularly in the extremely rural areas.

Mr. Gary Merrill, Director, Algona Emergency Medical Service, opined that standards for EMS providers should be high as they are medical providers who need to provide quality care and that background checks should be required. Mr. Merrill also stated his opposition to reducing the training requirements in order to recruit more EMS providers.

Mr. Jeff Burkett, a volunteer EMS provider from Prairie City, stated that identifying resources and complying with the requirements for obtaining grant moneys for training is confusing and time-consuming for smaller EMS agencies that are already time-constrained.

Mr. Jacob Mayer, a recently certified EMT from Lake City whose training was paid for by the hospital by which he is employed in exchange for a two-year employment commitment, stated that people need to understand that EMS providers are medical professionals and that training for such is going to cost money. Mr. Mayer also detailed his personal time commitment for performing his EMT duties as well as being a full-time community college student.

Mr. Scott Nelson, Director of Operations, Midwest Ambulance Services, opined that in adopting the national standards for the scope of practice for EMS providers, the ability to consider state and local needs in determining scope of practice was lost. In particular, Mr. Nelson identified the revisions to the scope of practice for critical care paramedics as a problem not just for the level of care provided to patients but also for reimbursement rates. Mr. Nelson also detailed his experience working in other states and how that experience has allowed him a better understanding of what is successful in providing EMS.

Committee members also questioned the EMS Bureau representatives about future plans to name a permanent EMS Bureau Chief and a state medical director for EMS. Iowa has been without a state medical director for 10 years and committee members questioned the rationale and impact that vacancy has had and what role EMSAC has played during that time. Members of the committee acknowledged that despite the lack of a state medical director, local EMS services are required to have a medical director who is a physician.

VII. EMS Provider Perspective

Mr. Brian Donaldson, Director, SEMS Paramedic Services, Sumner, Iowa, has worked in the EMS field for over 30 years. He discussed various issues relating to the EMS system in Iowa. Mr. Donaldson noted the difficulties faced by rural EMS providers and the lack of change in the EMS system design since its inception. Mr. Donaldson does not believe that the current design of the EMS system is supported by scientific evidence and that changes should be undertaken. He opined that consolidation, regionalization, and partnerships are key in regard to the future development of the EMS system, which should be led and supported by the state including the EMS Bureau. In particular, he noted that not every locality may require a transport ambulance service and that such service could be regionalized. Instead, he noted that the cost savings of investing in rapid response vehicles rather than ambulance vehicles could be substantial.

Mr. Donaldson also indicated that the approach to Medicaid reimbursement needs to be revised as Iowa has the lowest reimbursement rate in the upper Midwest and the fee schedule is not all-inclusive. Mr. Donaldson opined that there should be a mechanism in place for annual review of reimbursement rates. He also stated that behavioral health transport requirements and reimbursement need to be reevaluated. Such transports take EMS personnel out of service for a significant period of time and reimbursement does not follow the same Medicaid fee schedule.

Mr. Donaldson addressed the status of EMS and opined that EMS should be considered an essential service. Although townships and counties have the ability to tax for such services, no entity has the responsibility to provide service or funding. Mr. Donaldson noted that only Appanoose County is utilizing the one percent EMS income surtax. Committee members requested additional information in regard to the number of local governments that were currently imposing the maximum property tax levy. Mr. Donaldson also expressed his desire to see implementation of a Blue Ribbon Task Force to allow expert guidance from leaders in the industry for the creation of a plan to develop a sustainable system to provide quality care.

Mr. Donaldson also addressed the possible use of EMS providers to provide follow-up services to patients recently discharged from hospitals in order to reduce the likelihood of being readmitted to the hospital and consequently impacting the hospital's reimbursement. Committee members asked Mr. Donaldson to identify examples of these types of services and questioned whether such services would encroach on home health care providers. Mr. Donaldson noted that only about five percent of services provided are life-threatening emergencies and EMS should be viewed instead as mobile health care.

Discussion. In response to committee questioning, Mr. Donaldson stated his uncertainty about whether existing recruitment efforts are successful and urged the further easing of the financial burden on EMS providers, including an increase in the existing $50 income tax credit. Committee members also discussed the use of local law enforcement in behavioral transport cases.

VIII. EMS Advisory Council, Quality Assurance, Standards and Protocols Subcommittee

Mr. Gerd Clabaugh, Deputy Director, Iowa Department of Public Health, discussed the Quality Assurance, Standards and Protocols (QASP) Subcommittee's review of the administrative rules governing the authorization of EMS service programs. The subcommittee has several areas to

focus on in its review, which began in August 2013: the authorization levels for service programs, medical director training requirements, continuous quality improvement, data-related issues, and disciplinary procedures. According to Mr. Clabaugh, the goal at the end of the review process is to have the Department of Public Health synthesize the feedback and recommendations and then present the proposed changes to EMSAC again.

The presenters noted the overall concern that the administrative rules have not remained current with practices of the EMS industry. However, specific issues were addressed by Mr. Clabaugh including simplifying authorizations, providing the ability for EMS providers to perform tasks at different levels, revision and improvement of medical director training and transition, and addressing the frequency of inspections.

Ms. Frederiksen acknowledged the importance of the data being collected by the EMS Bureau for both the bureau and the EMS services. EMS services utilize the data to improve their services and increase efficiencies. Ms. Frederiksen noted, however, that the EMS Bureau's data collection system is 10 years old and may need revision.

Discussion. Mr. Clabaugh identified system development grants as a possible source of funding to help facilitate regionalization of EMS in the state. The subcommittee representatives also addressed committee questions relating to the implementation of proposals relating to the use of paramedicine and the use of transportation methods other than ambulances. Committee members also questioned the current practice of requiring training centers to serve as clearinghouses for EMS training being provided in the state.

IX. Public Comment and Committee Discussion, November 7, 2013

The co-chairs opened the meeting for public comment and several EMS providers made remarks to the committee.

Mr. Orville Randolph, the mayor of Bennett and the director of the city's volunteer ambulance service, discussed the financial and other concerns of smaller volunteer services like Bennett's, including problems finding daytime coverage with volunteers who have full-time jobs, the dwindling funds for EMS System Development Grants, and the high turnover rate for service directors. Mr. Randolph provided details of his community's EMS system. He also stated that his city is already at its $8.10 levy limit and that grant money has decreased in recent years. He identified the existing income tax credit as a positive move but asked if it could be increased. Cost-saving measures, such as sharing local medical directors, were discussed. Mr. Randolph acknowledged the good work provided by the EMS Bureau but identified the reduced EMS Bureau staffing as a problem.

Committee members had further discussions on the issues of background checks, what an EMS mandate to local governments would include, the long-term consequences of reduced staffing at the EMS Bureau, the use of law enforcement officers as EMRs, the role of the EMS Bureau in facilitating solutions, and the trend of increased EMS call response times.

Co-chairperson Wilhelm requested the members of the committee to each discuss a few issues that they felt should be addressed. Several members commented that EMS should be made an essential service just as law enforcement and fire service are, but that how such service is paid for also needs to be addressed. Other issues raised included behavioral health transport

requirements and reimbursement; providing funding for EMS provider training, possibly through the community colleges; requiring background checks; increasing the income tax credit for volunteer providers; establishing a Blue Ribbon Task Force to further study the EMS system; increasing Medicaid reimbursements; increasing funding for and staffing of the EMS Bureau, including the addition of a State Medical Director; incentivizing the transition from EMT to paramedic; and determining whether personal medical information in data should be collected or retained.

X. Materials Filed With the Legislative Services Agency

The following materials were distributed at or in connection with the meeting and are filed with the Legislative Services Agency. The materials may be accessed from the "Committee Documents" link on the committee's Internet site:
https://www.legis.iowa.gov/committees/committee?ga=85&groupID=19058

1. Draft Minutes
2. EMS Bureau Presentation — Materials Provided Subsequent to Meeting
3. Mr. Brian Donaldson, SEMS Paramedic Services, Presentation
4. Iowa EMS Association Presentation — Additional Materials
5. Iowa EMS Association Presentation
6. EMS Training Programs Presentation
7. Attachment A: Authorized EMS Agencies (2013) map
8. Attachment B — Authorized Iowa EMS Agencies List
9. Attachment C: Iowa Emergency Medical Care Provider Scope of Practice (April 2012)
10. Attachment D — Authorized Iowa EMS Training Programs (July 2013)
11. Attachment E — Property Tax Rates for Fire and Emergency Medical Services (FY 2014)
12. Attachment F — Emergency Medical Services System Development Grants FY 2012-2014
13. Attachment G — EMS Response Times Per County, EMS Bureau Data
14. Attachment H — EMS Service Level Response Times, EMS Bureau Data
15. Background Information, Legislative Services Agency
16. Legislative Services Agency, Fiscal Services Division, Background Information on EMS Services in Iowa
17. DHS Medicaid Presentation
18. EMS Bureau Quality Assurance, Standards, and Protocols Subcommittee, Document 1
19. EMS Bureau Quality Assurance, Standards, and Protocols Subcommittee, Document 2

3965IC