



EMS UPDATE

Fall 2006

Emergency Medical Services

THE OFFICE OF EMERGENCY MEDICAL SERVICES

It's fall – a time when many people regroup, refocus, and return to work after summer vacation. The staff here at the Office of Emergency Medical Services (EMS) hope you've had a chance to take a break from your busy schedules because this fall, EMS in Washington will be busier than ever. Work on National EMS Education Standards continues and EMS data collection will expand as part of the National EMS Information System (NEMSIS). Along with our Federal and national partners, we will conduct the first meeting of the congressionally-mandated Federal Interagency Committee on EMS (FICEMS) and stand up the National 9-1-1 Office. We will meet with EMS and 9-1-1 constituent groups to complete tasks assigned to the Office of EMS for the national pandemic flu implementation plan, and deliberate EMS workforce issues to identify further actions that will help ensure a stable EMS workforce. We hope the EMS Update will keep you up-to-date on our ongoing projects and new activities.

We are also pleased to announce we'll have additional staff at the Office of EMS. Cathy Gotschall has joined the Office of EMS from NHTSA's Office of Planning and Budget. Prior to coming to NHTSA, Cathy spent 11 years as the director of research for Emergency Trauma Services at Children's National Medical Center and was the research specialist for the EMS-C National Resource Center. Cathy has a doctorate from the Johns Hopkins University Bloomberg School of Public Health.

TABLE OF CONTENTS

| | |
|---|---|
| The Office of Emergency Medical Services. | 1 |
| Federal Interagency Committee on | 1 |
| Emergency Medical Services | 2 |
| Education. | 2 |
| National EMS Information System | 3 |
| 9-1-1. | 3 |
| Research. | 4 |
| The EMS System. | 4 |
| EMS Workforce for the 21st Century | 5 |
| Did You Know. | 6 |

This fall we will also add one more staff person to our ranks who will be responsible for providing staff support to FICEMS. Please help us welcome these folks as we continue to support EMS services at the national, State and local level.

EMS PUBLIC HEALTH FELLOWSHIP

EMS operates at the crossroads of health care, public health, and public safety. Since EMS providers work in the community, they are often the first to identify public health problems and issues. The emergence of significant health problems is often heralded by their arrival in the emergency department – often arriving via EMS. Recognizing the role of EMS in public health is important to ensure EMS is integrated with community health care services. NHTSA's EMS Public Health Fellowship was developed in collaboration between the Association of Schools of Public Health and NHTSA to further the coordination of public health and EMS. The intent is to provide a program in which the Office of EMS gains public health expertise, while the fellow gains insight into the workings of a national level EMS agency.

Julie Krueger, a recent master's degree graduate of the George Washington University School of Public Health and Health Services, joined the Office of EMS in September 2005 as NHTSA's second EMS Public Health Fellow. The position allows her to play a major role in increasing linkages between public health systems and EMS systems nationwide.

During the past year, Julie has been focusing on policy and preparedness issues, primarily pandemic flu planning and the establishment of FICEMS. During the second year of her fellowship, Julie will continue these efforts and help bring a public health approach to national EMS. For more information on NHTSA's EMS Public Health Fellowship, contact Julie Krueger or Gamunu Wijetunge.

MEDICAL FELLOWSHIP

For the past 10 years, NHTSA has offered emergency physicians the chance to work directly with the program development staff and public affairs office at NHTSA. The

medical fellowship program gives physicians an opportunity to contribute medical expertise directly to a NHTSA program on issues of mutual interest and mutual benefit. Started by former NHTSA Administrator Dr. Ricardo Martinez, the first emergency physician to receive a one-year appointment as NHTSA Medical Fellow was Dr. Jeff Runge, who subsequently became NHTSA Administrator in 2001. Our current Medical Fellow is Dr. Christopher Kahn, who is starting year two of his appointment as NHTSA's Medical Fellow.

Dr. Kahn is an emergency physician at the University of California, Irvine, who is completing a fellowship in emergency management and emergency medical services as well as a master's program in public health. He joined the Office of EMS in 2005, working on issues including ambulance safety, the Technology and EMS project, and a feasibility study for an EMS workforce safety and health surveillance system. During year two, Dr. Kahn will be focusing on pandemic flu planning and the development of an evidence-based system to support clinical and operational decisions in EMS. For more information on NHTSA's Medical Fellowship program, contact Laurie Flaherty.

FEDERAL INTERAGENCY COMMITTEE ON EMERGENCY MEDICAL SERVICES

Providing Federal leadership in supporting a comprehensive EMS system surpasses the expertise and funding of any single department and requires a strong, coordinated approach among Federal agencies. Recognizing the importance of viable EMS systems to the Nation's health, safety, and security, the Bush Administration proposed and Congress established, through DOT's reauthorization legislation, a Federal Interagency Committee on Emergency Medical Services. The law requires the Secretaries of Transportation, Health and Human Services, and Homeland Security to establish FICEMS and requires NHTSA to provide administrative support. The statutory responsibilities include the following:

- To ensure coordination among the Federal agencies involved with State, local, and tribal Emergency Medical Services and 9-1-1 systems;
- To identify State, local, and tribal EMS and 9-1-1 needs;

- To recommend new or expanded programs, including grant programs, for improving EMS and 9-1-1 systems;
- To identify ways to streamline the process through which Federal agencies support emergency medical services;
- To assist State, local, tribal, or regional EMS in setting priorities;
- To advise, consult and make recommendations on matters related to implementation of State emergency medical services programs; and
- To provide an annual report to Congress.

The first step in organizing FICEMS occurred in May of this year, when then Secretary of Transportation Norman Y. Mineta contacted the heads of the various departments and agencies that are statutory members of FICEMS and asked them to name high-level representatives from their organizations. The names have been submitted by these agencies and the first meeting of FICEMS will be set by NHTSA Administrator Nicole Nason to occur in the fall of 2006. With the formal charge to advise, consult, and make recommendations directly to Congress, FICEMS can provide EMS with an important voice in Washington. NHTSA looks forward to supporting FICEMS and to continuing to assist with improved Federal interagency coordination of emergency medical services.

EDUCATION

NATIONAL EMS EDUCATION STANDARDS PROJECT

With the *National EMS Scope of Practice Model* completed and soon ready for public dissemination, the National Association of EMS Educators has been busy working on the proposed format for the *National EMS Education Standards*. Once the format is agreed upon by the project team and the national EMS community stakeholder organizations in late 2006, the template will be used to help guide the development of the first drafts of the Education Standards in early 2007.

For more information about the progress and status of the National EMS Education Standards project, please visit its Web site at www.naemse.org. For more information on the implementation of the *National EMS Education Agenda for the Future: A Systems Approach*, please contact Dave Bryson.

NATIONAL EMS INFORMATION SYSTEM

In the inaugural issue of *EMS Update* (March 2006) we discussed the many benefits of having uniform, nationwide EMS data. In the Summer 2006 online issue of *EMS Update* we provided more information about the actual NHTSA Uniform Prehospital Dataset (version 2.2.1), the data portability provided through the standardized platform (XML) that allows data to be seamlessly transferred from one organization or device to another, and a description of the various resources and services offered by the NEMSIS Technical Assistance Center (NEMSIS TAC).

There has been more exciting progress on implementation of NEMSIS. Over the summer, NEMSIS TAC began to receive State EMS data from the first several States to participate in the National EMS Database. It is expected that six to seven States will submit data by the end of this year, with several more preparing to submit next year. In mid-June, the NEMSIS TAC Advisory Board held its first meeting in Silver Spring, Maryland. The advisory board is comprised of representatives of key EMS stakeholders and will provide ongoing input to the TAC. In addition, in July 2006 the TAC announced the first class of NEMSIS-compliant software. This will assist State and local agencies in their selection of vendors/software for EMS data collection and analysis. A list of NEMSIS-compliant software and information about the NEMSIS compliance process can be found at www.nemsis.org.

Finally, the NEMSIS TAC, NHTSA's Office of EMS, and the National Center for Statistics and Analysis (NCSA) have begun discussions about the initial reports that might be generated from the National EMS Database. There will be many opportunities for input as these discussions continue.

Uniform, nationwide EMS data that can be seamlessly transferred from one organization or device to another will give EMS the ability to strategically plan its future, with decisions based on objective evidence. NEMSIS data will give EMS another tool to guide its continued improvement. For more information on NEMSIS, visit the NEMSIS Web site at www.nemsis.org or contact Susan McHenry.

9-1-1

NEXT GENERATION 9-1-1 INITIATIVE

It's been a busy summer for the Next Generation 9-1-1 Initiative. In conjunction with the Intelligent Transportation System's (ITS) Public Safety Program (housed within the Federal Highway Administration), the Office of EMS is managing a research initiative that will produce a high-level system architecture and transition plan for the next generation of the 9-1-1 system, establishing the foundation for emergency communications in a wireless mobile society and enabling enhanced 9-1-1 access with many communication devices. The goal of the initiative is to establish the infrastructure for transmission of voice, data, photographs, and video from different types of communication devices to the Public Safety Answering Points (PSAPs) and onto emergency responder networks.

America's current 9-1-1 system is decades old, and was not built to handle the text, data, photos, and video that are increasingly common in personal communications. The current system is analog, not digital, and is landline-based, not Internet-based. This antiquated network cannot transmit the information available from new technologies. The data, photos, and video provided by personal communication devices have the potential to improve emergency response, triage, and definitive care. That's assuming PSAPs are equipped to receive data, photos, and video, and that EMS providers know how to use this additional information to improve patient care.

A Request for Proposals was issued in May for a design team that will be responsible for producing a high-level system architecture and transition plan for the next generation of the 9-1-1 system. The NG 9-1-1 design team contract, funded by the ITS Joint Program Office, will be awarded this fall. To view the preliminary concept of operations document and for other information on the Next Generation 9-1-1 Initiative, visit <http://www.its.dot.gov/ng911/index.htm>, or contact Laurie Flaherty.

NATIONAL 9-1-1 OFFICE

The emergency communication provided by 9-1-1 services is an essential component of any EMS or public safety system. To support 9-1-1 services, a National 9-1-1 Office, required by Congress, is being established within the Office

Intelligent Transportation System's Public Safety Program, and through a multi-disciplinary Technical Consultation Committee (TCC), has developed an "EMS Technology Assessment Template" (EMSTAT) which can be used by EMS technology developers, manufactures, and consumers in the evaluation of new technology. The EMSTAT may also help guide manufacturers and EMS technology consumers when considering the development of trials to evaluate the performance of new technology.

The EMS Technology Assessment Template is designed to evaluate information technology and EMS devices that provide raw data about patients, evaluation-oriented clinical patient information, or decision support tools. The template may also be used by local consumers (e.g., EMS medical directors or administrators) to determine assessment criteria for other types of EMS equipment and treatments.

During a summer meeting, the multidisciplinary Technical Consultation Committee finalized the latest version of EMSTAT, and discussed strategies and options for its use on an ongoing basis. If you would like more information on EMSTAT or the Technology and EMS project, contact Laurie Flaherty.

FIELD TRIAGE OF TRAUMA PATIENTS

EMS providers are well aware of the importance of field triage of trauma patients. Field triage is the process by which prehospital EMS providers determine which trauma patients are the most seriously injured. This process determines the order, speed, and destination of transport. Triage decisions can impact whether trauma patients live or die. Their accuracy is essential for the effective use of limited medical resources. "Under triaging" of patients may cause preventable death and disability. "Over triage" of patients will tax increasingly challenged EMS and hospital resources.

The American College of Surgeons Committee on Trauma's (ACS/COT) *Resources for Optimal Care of the Injured Patient: 1999* Field Triage Decision Scheme serves as the basis for many State and local trauma triage protocols. Updating these national field criteria will ensure that the most current and the best available information will be used to make field triage decisions.

For example, for victims of car crashes, it may be important to incorporate information from new technologies such as advanced automatic crash notification (AACN). Many factors

with direct influence on the severity of injury, such as airbag deployment and other AACN data could be incorporated into these nationally promulgated field triage criteria.

A multidisciplinary panel of national experts representing EMS, emergency medicine, trauma surgery, and public health was selected by CDC's Division of Injury Response and NHTSA's Office of EMS to take on the task of revising, publishing, and disseminating model national trauma field triage criteria.

As a foundation for its work, the panel used the Field Triage Decision Scheme published in the ACS/COT's *Resources for Optimal Care of the Injured Patient: 1999*. Experts met three times between March 2005 and April 2006 to revise this document. The meetings were facilitated by Dr. Jerry Jurkovich, vice chairman of ACS/COT.

Based on the best available scientific evidence combined, when necessary, with expert opinion, new criteria agreed upon by the expert panel will be included in the upcoming revision of the ACS/COT's *Resources for Optimal Care of the Injured Patient*. This project is funded by CDC's Division of Injury Response, HRSA's Emergency Medical Services for Children program, and the Office of Emergency Medical Services at the National Highway Traffic Safety Administration.

The national trauma field triage criteria are primarily intended for the prehospital EMS provider and, through a comprehensive implementation strategy, could be incorporated into other documents, textbooks, and publications. Implementation of these guidelines will help assure prehospital EMS providers appropriately recognize, treat, and transport injured patients, including those from highway crashes, to the most appropriately equipped and staffed medical facilities. For more information on the Field Triage Project, contact Drew Dawson.

EMS WORKFORCE FOR THE 21ST CENTURY

To help promote a sufficient, stable, and well-trained EMS workforce for the future NHTSA and the Health Resources and Services Administration's EMS for Children Program are funding a project which includes a systematic assessment of the Nation's EMS workforce. The goals of this project are to develop a consensus-based national EMS workforce policy

of EMS -- a joint effort between NHTSA and the National Telecommunications and Information Administration (NTIA) at the Department of Commerce. The ENHANCE 911 Act of 2004 requires the establishment of a National 9-1-1 Implementation Coordination Office (National 9-1-1 Office) whose functions include:

1. actions to improve Federal coordination and communication on 9-1-1 activities;
2. developing, collecting, and disseminating information concerning practices, procedures, and technology used in the implementation of 9-1-1 services; and
3. administering a grant program designed to provide funding to 9-1-1 call centers, to upgrade their equipment and operations to receive 9-1-1 calls with automatic phone number and location identification.

Most commercial telephone networks have the technology to transmit wireless 9-1-1 calls that include automatic phone number and location identification. However, many of our Nation's 9-1-1 call centers are still operating with 30-year-old infrastructure, and are not ready to take advantage of these new capabilities. The ENHANCE 911 Act of 2004 authorized grant funding for 9-1-1 call centers to upgrade their equipment and operations to receive location-capable wireless 9-1-1 calls. Although the grant program will not be funded until 2008, the National 9-1-1 Office will create a Federal focus for 9-1-1 policy and programs. For more information, contact Laurie Flaherty.

RESEARCH

NATIONAL EMS RESEARCH AGENDA

A national investment of time and effort in EMS research is necessary to overcome obstacles that currently prevent EMS from gathering the essential evidence of its positive effect on patient care and patient outcomes. Collecting and analyzing this evidence is the key to improving the overall health of the community in a competitive and cost-conscious health care market. Most importantly, research is essential to ensure that the best possible patient care is provided in the prehospital setting. EMS professionals deserve the benefit of research to assist them in providing the best possible care in the challenging circumstances they encounter.

The National EMS Research Agenda is a joint project of NHTSA and the Maternal and Child Health Bureau (MCHB) of the Health Resources Services Administration (HRSA).

It describes the history and current status of EMS research. Impediments to the growth of scientific investigation in the field are identified; and strategies are suggested for improving the quality and quantity of EMS research with the goal of providing a scientific foundation upon which to base current and future prehospital care. Its companion document, the National EMS Research Strategic Plan, takes a broad look at the research needs within EMS, and establishes a plan for investigating those items, with priority items identified by a consensus process by a multidisciplinary group of EMS experts. The third phase of the EMS Research Project is to address EMS research ethics, including the consent process for research in emergency situations.

The *National EMS Research Agenda* was developed in parallel with the CDC's *Acute Injury Care Research Agenda: Guiding Research for the Future*. In addition, our Federal partners at the Agency for Healthcare Research and Quality (AHRQ) have just approved small-conference funding to combine with our project funding to support an EMS Research Ethics Conference. The purpose of the conference is to serve as the impetus for development of a guidance document to address issues of both consent and ethical conduct for EMS research. Dates and other details for the conference are currently under discussion. For more information on the National EMS Research Agenda, the National EMS Research Strategic Plan, or the upcoming EMS Research Ethics Conference contact Susan McHenry.

THE EMS SYSTEM

TECHNOLOGY AND EMS PROJECT

Technology is producing more gadgets and making more information available every day. But how can you make sure that technology will provide useful information? And most important, how can you tell if new technology makes a difference? Many new technologies have great potential for their application to emergency medicine and the improvement of emergency care. But there is no coordinated method for determining the clinical utility or the effectiveness of new technologies before they are deployed in EMS – at least not today.

Consumers of EMS technology could benefit from a guide designed to assist in the evaluation of new technology. This guide could help the consumer to ask informed questions when considering new technologies. The National Association of EMS Physicians, funded by the

agenda, and to develop priority action steps for assuring a robust EMS workforce. Topics such as turnover, challenges with recruitment, and concern with worker wellness and safety will be among the issues to be addressed.

The Center for the Health Professions at the University of California, San Francisco (UCSF), is assisting NHTSA by conducting a literature search and reviewing reports, publications, unpublished materials, and Web site information relevant to the EMS workforce. The center has also explored existing data sources and conducted interviews with national EMS experts to explore multiple EMS workforce issues. Summary findings were shared with national EMS stakeholders at a September 11-12 meeting in Washington, DC, where work was begun on development of an EMS Workforce Policy Agenda.

We need your input on this on-going project. An “EMS Discussion Blog” site has been established by UCSF at www.emsworkforce.com. We would like input from a broad range of people involved in EMS. Please feel free to post your comments to any and all questions on this site. For more information on the EMS Workforce project, contact Gamunu Wijetunge.

DID YOU KNOW?

Did you know that compared to U.S. national estimates (regardless of gender, age, or race), EMTs are more likely to drive faster and less likely to use safety belts when driving for personal, non-work-related purposes?¹

These results were based on data collected from approximately 2,000 EMTs by the LEADS Project (Longitudinal Emergency Medical Technician Demographic Study), and compared with the Center for Disease Control’s Behavioral Risk Factor Surveillance System and NHTSA’s Motor Vehicle Occupant Safety Survey. The LEADS Project is a 46-item demographic and attribute questionnaire sponsored by the National Registry of EMTs that has been administered annually since 1999. For more information on LEADS, go to http://www.nremt.org/about/lead_survey.asp or contact Gregg Margolis at greggm@nremt.org or 614-888-4484.

1 Pirralo, R., Levine, R. and Dickison, P. “Behavioral Health Risk Factors of United States Emergency Medical Technicians: The LEADS Project. Prehospital and Disaster Medicine, July-August, 2005 (20) 4: 235-242.

NHTSA OFFICE OF EMS

| | |
|--|--------------|
| Drew Dawson , Director drew.dawson@dot.gov | 202-366-9966 |
| Susan McHenry , MS susan.mchenry@dot.gov | 202-366-6540 |
| David Bryson , EMT-B dave.bryson@dot.gov | 202-366-4302 |
| Gamunu Wijetunge , NREMT-P gamunu.wijetunge@dot.gov | 202-493-2793 |
| Laurie Flaherty , RN laurie.flaherty@dot.gov | 202-366-2705 |
| Debbie Boykin debbie.boykin@dot.gov | 202-366-5440 |
| Julie Krueger , Public Health Fellow julie.krueger@dot.gov | 202-366-5016 |
| Jenny Hansen (Contractor) jenny.hansen@dot.gov | 202-366-5598 |
| Cathy Gotschall , ScD cathy.gotschall@dot.gov | 202-366-1282 |

ADDRESS

National Highway Traffic Safety Administration
Office of EMS
400 Seventh Street SW. (NTI-140)
Washington, DC 20590
PHONE: 202-366-5440 FAX: 202-366-7721
Web page: www.nhtsa.dot.gov

To order EMS materials and publications, visit the NHTSA Web site at www.nhtsa.dot.gov, and click on “Traffic Safety Materials & Publications” in the Quick Links section.

