National Emergency Medical Services Education Standards
The National EMS Education Standards
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Executive Summary

The National EMS Education Standards (the Standards) represent another step toward realizing the vision of the 1996 EMS Agenda for the Future, as articulated in the 2000 EMS Education Agenda for the Future: A Systems Approach.

The National EMS Education Standards outline the minimal terminal objectives for entry-level EMS personnel to achieve within the parameters outlined in the National EMS Scope of Practice Model. Although educational programs must adhere to the Standards, its format will allow diverse implementation methods to meet local needs and evolving educational practices. The less prescriptive format of the Standards will also allow for ongoing revision of content consistent with scientific evidence and community standards of care.

In implementing the Standards, EMS instructors and educational programs will have the freedom to develop their own curricula or use any of the wide variety of publishers’ lesson plans and instructional resources that are available at each licensure level.

Consistent with the EMS Education Agenda, EMS accreditation authorities will use the Standards as the framework for evaluation of program curricula.

The National EMS Education Standards are not a stand-alone document. EMS education programs will incorporate each element of the education system proposed in the Education Agenda. These elements include:

- National EMS Core Content
- National EMS Scope of Practice
- National EMS Education Standards
- National EMS Certification
- National EMS Program Accreditation

This integrated system is essential to achieving the goals of program efficiency, consistency of instructional quality, and student competence as outlined in the Education Agenda.

Introduction

As a profession, EMS is still in its early developmental stages. The formal progression of an organized civilian EMS system began in the 1960s and continues to evolve as we further define and enhance our structure, oversight, and organization.

As EMS system operations have developed, so has EMS education. In the early 1970s, registered nurses and physicians taught most EMS programs. Few student and instructor resources related directly to prehospital emergency care. No standards existed to define practice and there was no clear delineation of scopes of practice in EMS.
**Historical Development of EMS in the United States**

Table 1 outlines key events in the development of EMS in the United States from the 1950s to the present.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Organization</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950s</td>
<td>American College of Surgeons</td>
<td>Developed the first training program for ambulance attendants</td>
</tr>
<tr>
<td>1960</td>
<td>President’s Committee for Traffic Safety</td>
<td>Recognized the need to address “Health, Medical Care and Transportation of the Injured” to reduce traffic fatalities</td>
</tr>
<tr>
<td>1966</td>
<td>National Academy of Science published <em>Accidental Death and Disability: The Neglected Disease of Modern Society (The White Paper)</em></td>
<td>Quantified the scope of traffic-related death in the United States Described the deficiencies in prehospital care in this country, including: - Call for ambulance standards - State-level policies and regulations - Recommendation to adopt methods for providing consistent ambulance services at the local level</td>
</tr>
<tr>
<td>1966</td>
<td>Highway Safety Act of 1966</td>
<td>Required each State to adopt highway safety programs to comply with Federal standards (including “emergency services”) Impetus for NHTSA leadership in EMS: - Directed writing of National Standard Curricula - Provided funding to States to develop State EMS Offices - Took leadership role in EMS system development, including developing model EMS State legislation</td>
</tr>
<tr>
<td>1970s</td>
<td>Robert Wood Johnson Foundation and Federal Government</td>
<td>Funded regional EMS systems and demonstration projects</td>
</tr>
<tr>
<td>1970s</td>
<td>Crash Injury Management for the Law Enforcement Officer published by NHTSA</td>
<td>40-hour program that evolved into First Responder: NSC in 1979</td>
</tr>
<tr>
<td>1970</td>
<td>National Registry of EMTs (NREMT)</td>
<td>Held first board meeting, with goal to provide uniform standards for credentialing ambulance attendants.</td>
</tr>
<tr>
<td>Year</td>
<td>Event/Organization</td>
<td>Result</td>
</tr>
<tr>
<td>------</td>
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</tr>
<tr>
<td>1971</td>
<td><em>Emergency Care and Transportation of the Sick and Injured</em> published by the American Academy of Orthopedic Surgeons (AAOS)</td>
<td>One of the first EMS textbooks</td>
</tr>
</tbody>
</table>
| 1973 | Emergency Medical Services Act of 1973 enacted by Congress as Title XII of the Public Health Services Act | Over $300 million in funding for EMS over 8 years:  
- Allowed for EMS system planning and implementation  
- Required States to focus on EMS personnel and training  
- Resulted in legislation and regulation of EMS personnel levels |
<p>| 1975 | American Medical Association (AMA)                                                | Recognized EMT-Paramedic as an allied health occupation                |
| 1977 | National Standard Curriculum for EMT-Paramedic published by NHTSA                | 15 instructional modules                                               |
| 1978 | The Essentials for Paramedic Program Accreditation developed by AMA             | Joint Review Committee on Education Programs for the EMT-Paramedic (JRCEMT-P) adopted <em>The Essentials</em> as the standard for accreditation |
| 1985 | First Responder, EMT-Ambulance, EMT-Intermediate, and EMT-Paramedic: NSC revised by NHTSA | EMT-Paramedic reformatted into six divisions                           |
| 1990 | NHTSA hosts EMS Training Workshop                                                | This workshop facilitated the development of the 1990s curricula and introduced the assessment based education concept |
| 1992 | EMS Education and Practice Blueprint.                                           | This document served as a template for the revised format of the 1990s NSC revision projects |
| 1992 | Initiated EMS Agenda for the Future                                              | Funded by NHTSA, Maternal and Child Health Bureau (MCHB), and Health Resources and Services Administration (HRSA) |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Organization</th>
<th>Result</th>
</tr>
</thead>
</table>
| 1994 | NREMT  Practice Analysis                                                           | Conducted practice analysis of EMTs and paramedics:  
- Determined importance of EMS actions based on assessment of frequency and potential for harm  
- Provided foundation for NREMT test blueprint                                                                 |
| 1994 | EMT-Ambulance revised and renamed EMT-Basic: NSC                                   |                                                                                                                                                                                                       |
| 1995 | First Responder: NSC is revised                                                    |                                                                                                                                                                                                       |
| 1996 | *EMS Agenda for the Future* is created by the National Association of EMS Physicians and National Association of State EMS Directors | Vision statement for integration of EMS into the health care system and funded by NHTSA and Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB), EMSC Program |
| 1998 | PEW Health Professions Commission Taskforce on Health Care Workforce Regulation published *Strengthening Consumer Protection: Priorities for Health Care Workforce Regulation* | Recommended:  
- National Policy Advisory Board to establish standards and model legislative language for uniform scope of practice authority for health professions  
- Emphasis on States’ responsibility to enact uniform scope of practice consistent with the recommendations of the National Policy Advisory Board. |
| 1998 | EMT-Paramedic: NSC revised                                                          |                                                                                                                                                                                                       |
| 1999 | EMT-Intermediate: NSC revised                                                       |                                                                                                                                                                                                       |
| 2000 | *Education Agenda for the Future: A Systems Approach* published by NHTSA           | Funded by NHTSA and HRSA. Designed to develop an integrated system of EMS regulation, certification, and licensure                                                                                     |
| 2004 | 2004 National EMS Practice Analysis published by NREMT                             | Updates the 1994 Practice Analysis                                                                                                                                                                      |
| 2005 | *National EMS Core Content* published by NHTSA and HRSA                            | Defines:  
- Domain of knowledge of EMS personnel described within the *National EMS Scope of Practice*  
- Universal knowledge and skills of EMS personnel                                                                                                                                                     |
### Table 1: Historical Development of EMS

<table>
<thead>
<tr>
<th>Year</th>
<th>Event/Organization</th>
<th>Result</th>
</tr>
</thead>
</table>
| 2005 | The State of EMS Education EMS Research Project: Characteristics of EMS Educators by Ruple et al. In Prehospital Emergency Care | Research related to:  
- Identifying characteristics of EMS instructors  
- Describing infrastructure available to instructors  
- Identifying instructor attributes necessary for implementing education standards |
| 2006 | EMS at the Crossroads Institute of Medicine Report                                   | Recommendations related to EMS Education Agenda:  
- State governments should adopt a common scope of practice for EMS personnel, with State licensing reciprocity  
- States should require national accreditation of paramedic programs  
- States should accept national certification as a prerequisite for State licensure and local credentialing of EMS providers |
| 2007 | National EMS Scope of Practice published by NHTSA                                    | National guideline to define levels of EMS licensure:  
- Guide State legislation  
- Promote reciprocity between States  
- Clarify EMS roles for the community |

In August 1996, the EMS Agenda for the Future (the Agenda) was published. This consensus document was developed with funding from the National Highway Traffic Safety Administration and the Health Resources and Services Administration. The National Association of EMS Physicians and the National Association of State EMS Directors led this process, which involved many stakeholders.

The Agenda document was designed to guide government and private organizations in EMS planning, development, and policy-making at the national, State, and local levels. It addressed 14 attributes of EMS, including the EMS education system. The Agenda defined a vision for the future of EMS education that “employs sound educational principles,” “based on research,” and “conducted by qualified instructors.” In December of that year, representatives of 30 EMS-related organizations met at an EMS Education Conference sponsored by NHTSA to identify the necessary steps for implementing that vision.

The outcome of the EMS Education Conference was summarized in the EMS Education Agenda for the Future: A Systems Approach. This document included the following recommendations:

- The National EMS Education and Practice Blueprint (the Blueprint) is a valuable component of the EMS education system. A multidisciplinary panel, led by NHTSA, to more explicitly identify core educational content for each licensure level, should revise it.
• National EMS education standards are necessary, but need not include specific declarative material or lesson plans. NHTSA should support and facilitate the development of national EMS education standards.

• The Blueprint and national EMS education standards should be revised periodically, with major revisions occurring every 5 to 7 years, and minor updates made every 2 to 3 years.

In 1998, NHTSA convened a Blueprint Modeling Group to revise the Blueprint. That group determined that the Blueprint represented only one component of a comprehensive EMS education system, so it redefined its mission, and the group was renamed the EMS Education Task Force. The Task Force produced a document titled the EMS Education Agenda for the Future: A Systems Approach (the Education Agenda).

The EMS education system envisioned in the EMS Agenda for the Future was further defined and articulated into the model shown in Figure 1 in the Education Agenda. This document states that, to be most effective, each component in the EMS education system should be structured, coordinated, and interdependent.

The National EMS Core Content was published in 2005. Core Content defines the entire domain of out-of-hospital practice and identifies the universal body of knowledge and skills for EMS providers who do not function as independent practitioners. Funded by NHTSA and HRSA, this project was led by the National Association of EMS Physicians and the American College of Emergency Physicians.
The National EMS Scope of Practice Model (Scope of Practice) is a consensus document that was published in 2006. This document defines the levels of EMS personnel and delineates the practices and minimum competencies for each level of EMS personnel. The Scope of Practice does not have regulatory authority, but provides guidance to States. Adherence to the Scope of Practice would increase uniformity in EMS practice throughout this country and facilitate reciprocity between States. Leadership for this project was delegated to the National Association of State EMS Officials and funded by NHTSA and HRSA.

The Scope of Practice describes four levels of EMS personnel licensure: Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), and Paramedic. The Scope of Practice further defines practice, suggests minimum educational preparation, and designates appropriate psychomotor skills at each level of licensure. Further, the document describes each level of licensure as distinct and distinguished by unique “skills, practice environment, knowledge, qualifications, services provided, risk, level of supervisory responsibility, and amount of autonomy and judgment/critical thinking/decision-making.”

The National EMS Education Standards, led by the National Association of EMS Educators, replace the NHTSA National Standard Curricula at all licensure levels. The Standards define the competencies, clinical behaviors, and judgments that must be met by entry-level EMS personnel to meet practice guidelines defined in the National EMS Scope of Practice Model. Content and concepts defined in the National EMS Core Content are also integrated within the Standards.

National EMS Certification and National EMS Education Program Accreditation are the “bookends” that support the other key elements of the system. The Education Agenda recommends an individual must graduate from a nationally accredited EMS education program to be eligible for National EMS Certification. This recommendation was also supported by the Institute of Medicine report, The Future of Emergency Care: EMS at the Crossroads. Essential components of the EMS Agenda include a single National EMS Accreditation Agency and a single National EMS Certification Agency to ensure consistency and quality of EMS personnel.

The National EMS Education Standards

The National EMS Education Standards comprise four components (Table 2):

1. Competency (designated in yellow) - This statement represents the minimum competency required for entry-level personnel at each licensure level.
2. Knowledge Required to Achieve Competency (designated in blue) - This represents an elaboration of the knowledge within each competency (when appropriate) that entry-level personnel would need to master in order to achieve competency.
3. Clinical Behaviors/Judgments (designated in green) - This section describes the clinical behaviors and judgments essential for entry-level EMS personnel at each licensure level.
4. Educational Infrastructure (designated in white) - This section describes the support standards necessary for conducting EMS training programs at each licensure level.
Each statement in the Standards presumes that the expected knowledge and behaviors are within the scope of practice for that EMS licensure level, as defined by the National EMS Scope of Practice Model. Each competency applies to patients of all ages, unless a specific age group is identified.

The Standards also assume there is a progression in practice from the Emergency Medical Responder level to the Paramedic level. That is, licensed personnel at each level are responsible for all knowledge, judgments, and behaviors at their level and at all levels preceding their level. For example, a Paramedic is responsible for knowing and doing everything identified in that specific area, as well as knowing and doing all tasks in the three preceding levels.

The descriptors used to illustrate the increasing complexity of knowledge and behaviors through the progression of licensure levels originate, in part, from the National EMS Scope of Practice Model. These terms reflect the differences in the breadth, depth, and actions required at each licensure level (Figure 2).
The **depth** of knowledge is the amount of detail a student needs to know about a particular topic. The **breadth** of knowledge refers to the number of topics or issues a student needs to learn in a particular competency. For example, the Emergency Medical Responder needs to have a thorough understanding (depth) about how to safely and effectively use the bag valve mask; however, the EMR is taught a limited number of concepts (breadth) surrounding management of a patient’s airway.

To describe the intended depth of knowledge of a particular concept within a provider level, the Project Team uses the terms **simple**, **fundamental**, and **complex**. This terminology better illustrates the progression of the depth of knowledge from one particular level to another. For example, the EMR’s *depth* of knowledge for bleeding control is simple while the EMT’s *depth* of knowledge for bleeding control is fundamental.

To describe the intended breadth of knowledge of a concept within a provider level, the project team uses the terms **simple**, **foundational**, and **comprehensive**. This terminology also better illustrates the progression of the breadth of knowledge from one particular level to another. For example, the EMT’s breadth of knowledge for cardiovascular disorders is foundational while the Paramedic’s *breadth* of knowledge for cardiovascular disorders is comprehensive.
From the National EMS Scope of Practice Model: EMS Personnel Licensure Levels

Emergency Medical Responder
The primary focus of the Emergency Medical Responder is to initiate immediate lifesaving care to critical patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional EMS response and to assist higher level personnel at the scene and during transport. Emergency Medical Responders function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Responders perform basic interventions with minimal equipment.

Emergency Medical Technician
The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Technicians perform interventions with the basic equipment typically found on an ambulance. The Emergency Medical Technician is a link from the scene to the emergency health care system.

Advanced Emergency Medical Technician
The primary focus of the Advanced Emergency Medical Technician is to provide basic and limited advanced emergency medical care and transportation for critical and emergent patients who access the emergency medical system. This individual possesses the basic knowledge and skills necessary to provide patient care and transportation. Advanced Emergency Medical Technicians function as part of a comprehensive EMS response, under medical oversight. Advanced Emergency Medical Technicians perform interventions with the basic and advanced equipment typically found on an ambulance. The Advanced Emergency Medical Technician is a link from the scene to the emergency health care system.

Paramedic
The Paramedic is an allied health professional whose primary focus is to provide advanced emergency medical care for critical and emergent patients who access the emergency medical system. This individual possesses the complex knowledge and skills necessary to provide patient care and transportation. Paramedics function as part of a comprehensive EMS response, under medical oversight. Paramedics perform interventions with the basic and advanced equipment typically found on an ambulance. The Paramedic is a link from the scene into the health care system.

Each educational level assumes mastery of previously stated competencies. Each individual must demonstrate each competency within his or her scope of practice and for patients of all ages.
<table>
<thead>
<tr>
<th>Preparatory</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparatory</strong></td>
<td>Uses simple knowledge of the EMS system, safety/well-being of the EMR, medical/legal issues at the scene of an emergency while awaiting a higher level of care.</td>
<td>Applies fundamental knowledge of the EMS system, safety/well-being of the EMT, medical/legal and ethical issues to the provision of emergency care.</td>
<td>Applies fundamental knowledge of the EMS system, safety/well-being of the AEMT, medical/legal and ethical issues to the provision of emergency care.</td>
<td>Integrates comprehensive knowledge of EMS systems, the safety/well-being of the paramedic, and medical/legal and ethical issues which is intended to improve the health of EMS personnel, patients, and the community.</td>
</tr>
</tbody>
</table>
| **EMS Systems** | Simple depth, simple breadth  
- EMS systems  
- Roles/responsibilities/professionalism of EMS personnel  
- Quality improvement | **EMR Material PLUS:**  
Simple depth, foundational breadth  
- EMS systems  
- History of EMS  
- Roles/responsibilities/professionalism of EMS personnel  
- Quality improvement  
- Patient safety | **EMT Material PLUS:**  
Fundamental depth, foundational breadth  
- Quality improvement  
- Patient safety | **AEMT Material PLUS:**  
Complex depth, comprehensive breadth  
- EMS systems  
- Roles/responsibilities/professionalism of EMS personnel  
- Quality improvement  
- Patient safety |
| **Research** | Simple depth, simple breadth  
- Impact of research on EMR care  
- Data collection | **EMR Material PLUS:**  
Simple depth, simple breadth  
- Evidence-based decision making | **Same as Previous Level** | **AEMT Material PLUS:**  
Fundamental depth, foundational breadth  
- Research principles to interpret literature and advocate evidence-based practice |
<table>
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<tr>
<th>Workforce Safety and Wellness</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
<tbody>
<tr>
<td>Simple depth, simple breadth</td>
<td></td>
<td>EMR Material PLUS: Fundamental depth, foundational breadth</td>
<td>Same as Previous Level</td>
<td>AEMT Material PLUS: Complex depth, comprehensive breadth</td>
</tr>
<tr>
<td>• Standard safety precautions</td>
<td></td>
<td>• Standard safety precautions</td>
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<td>• Provider safety and well-being</td>
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<tr>
<td>• Personal protective equipment</td>
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<td>• Personal protective equipment</td>
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<td>• Standard safety precautions</td>
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<td>• Stress management</td>
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<td>• Stress management</td>
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<td>• Personal protective equipment</td>
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<td>o Dealing with death and dying</td>
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<td>o Dealing with death and dying</td>
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<td>• Stress management</td>
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<tr>
<td>• Prevention of response-related injuries</td>
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<td>• Prevention of work related injuries</td>
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<td>o Dealing with death and dying</td>
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<tr>
<td>• Lifting and moving patients</td>
<td></td>
<td>• Lifting and moving patients</td>
<td></td>
<td>• Prevention of work related injuries</td>
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<tr>
<td>• Disease transmission</td>
<td></td>
<td>• Disease transmission</td>
<td></td>
<td>• Lifting and moving patients</td>
</tr>
<tr>
<td>• Wellness principles</td>
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<td>• Wellness principles</td>
<td></td>
<td>• Disease transmission</td>
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<thead>
<tr>
<th>Documentation</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple depth, simple breadth</td>
<td></td>
<td>EMR Material PLUS: Fundamental depth, foundational breadth</td>
<td>Complex depth, foundational breadth</td>
<td>AEMT Material PLUS: Complex depth, comprehensive breadth</td>
</tr>
<tr>
<td>• Recording patient findings</td>
<td></td>
<td>• Principles of medical documentation and report writing</td>
<td>• Principles of medical documentation and report writing</td>
<td>• Principles of medical documentation and report writing</td>
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</tbody>
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<table>
<thead>
<tr>
<th>EMS System Communication</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
<tbody>
<tr>
<td>Simple depth, simple breadth</td>
<td></td>
<td>EMR Material PLUS: Simple depth, simple breadth</td>
<td>Fundamental depth, foundational breadth</td>
<td>AEMT Material PLUS: Complex depth, comprehensive breadth</td>
</tr>
<tr>
<td>Communication needed to</td>
<td></td>
<td>• EMS communication system</td>
<td>• EMS communication system</td>
<td>• EMS communication system</td>
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<tr>
<td>• Call for Resources</td>
<td></td>
<td>Communication with other health care professionals</td>
<td>Communication with other health care professionals</td>
<td>Communication with other health care professionals</td>
</tr>
<tr>
<td>• Transfer care of the patient</td>
<td></td>
<td>• Team communication and dynamics</td>
<td>• Team communication and dynamics</td>
<td>• Team communication and dynamics</td>
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<tr>
<td>• Interact within the team structure</td>
<td></td>
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<td></td>
<td>EMR</td>
<td>EMT</td>
<td>AEMT</td>
<td>Paramedic</td>
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</tr>
<tr>
<td>Therapeutic Communication</td>
<td>Simple depth, simple breadth Principles of communicating with patients in a manner that achieves a positive relationship • Interviewing techniques</td>
<td><strong>EMR Material PLUS:</strong> Simple depth, simple breadth Principles of communicating with patients in a manner that achieves a positive relationship • Adjusting communication strategies for age, stage of development, patients with special needs, and differing cultures</td>
<td><strong>EMT Material PLUS:</strong> Simple depth, simple breadth Principles of communicating with patients in a manner that achieves a positive relationship • Dealing with difficult patients</td>
<td><strong>AEMT Material PLUS:</strong> Complex depth, comprehensive breadth Principles of communicating with patients in a manner that achieves a positive relationship • Factors that affect communication • Interviewing techniques • Dealing with difficult patients • Adjusting communication strategies for age, stage of development, patients with special needs, and differing cultures</td>
</tr>
<tr>
<td>Medical/Legal and Ethics</td>
<td>Simple depth, simple breadth • Consent/refusal of care • Confidentiality • Advanced directives • Tort and criminal actions • Evidence preservation • Statutory responsibilities • Mandatory reporting • Ethical principles/moral obligations • End-of-life issues</td>
<td><strong>EMR Material PLUS:</strong> Fundamental depth, foundational breadth • Consent/refusal of care • Confidentiality • Advanced directives • Tort and criminal actions • Evidence preservation • Statutory responsibilities • Mandatory reporting • Ethical principles/moral obligations</td>
<td><strong>Same as Previous Level</strong></td>
<td><strong>AEMT Material PLUS:</strong> Complex depth, comprehensive breadth • Consent/refusal of care • Confidentiality • Advanced directives • Tort and criminal actions • Statutory responsibilities • Mandatory reporting • Health care regulation • Patient rights/advocacy • End-of-life Issues • Ethical principles/moral obligations • Ethical tests and decision making</td>
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<td>EMR</td>
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<tr>
<td>Anatomy and Physiology</td>
<td>Uses simple knowledge of the anatomy and function of the upper airway, heart, vessels, blood, lungs, skin, muscles, and bones as the foundation of emergency care.</td>
<td>Applies fundamental knowledge of the anatomy and function of all human systems to the practice of EMS.</td>
<td>Integrates complex knowledge of the anatomy and physiology of the airway, respiratory and circulatory systems to the practice of EMS.</td>
<td>Integrates a complex depth and comprehensive breadth of knowledge of the anatomy and physiology of all human systems</td>
</tr>
<tr>
<td>Medical Terminology</td>
<td>Uses simple medical and anatomical terms.</td>
<td>Uses foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.</td>
<td>Same as Previous Level</td>
<td>Integrates comprehensive anatomical and medical terminology and abbreviations into the written and oral communication with colleagues and other health care professionals.</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>Uses simple knowledge of shock and respiratory compromise to respond to life threats.</td>
<td>Applies fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.</td>
<td>Applies comprehensive knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.</td>
<td>Integrates comprehensive knowledge of pathophysiology of major human systems.</td>
</tr>
<tr>
<td>Life Span Development</td>
<td>Uses simple knowledge of age-related differences to assess and care for patients.</td>
<td>Applies fundamental knowledge of life span development to patient assessment and management.</td>
<td>Same as Previous Level</td>
<td>Integrates comprehensive knowledge of life span development.</td>
</tr>
<tr>
<td>Public Health</td>
<td>EMR</td>
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<td>AEMT</td>
<td>Paramedic</td>
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<tr>
<td>Have an awareness of local public health resources and the role EMS personnel play in public health emergencies.</td>
<td>Uses simple knowledge of the principles of illness and injury prevention in emergency care.</td>
<td>Uses simple knowledge of the principles of the role of EMS during public health emergencies.</td>
<td>Applies fundamental knowledge of principles of public health and epidemiology including public health emergencies, health promotion, and illness and injury prevention.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pharmacology</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses simple knowledge of the medications that the EMR may self-administer or administer to a peer in an emergency.</td>
<td>Applies fundamental knowledge of the medications that the EMT may assist/administer to a patient during an emergency.</td>
<td>Applies to patient assessment and management fundamental knowledge of the medications carried by AEMTs that may be administered to a patient during an emergency.</td>
<td>Integrates comprehensive knowledge of pharmacology to formulate a treatment plan intended to mitigate emergencies and improve the overall health of the patient.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Principles of Pharmacology</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
</tr>
</thead>
</table>
| No knowledge related to this competency is applicable at this level. | Simple depth, simple breadth  
- Medication safety  
- Kinds of medications used during an emergency | EMT Material PLUS:  
Fundamental depth, foundation breadth  
- Medication safety  
- Medication legislation  
- Naming  
- Classifications  
- Storage and security  
- Autonomic pharmacology  
- Metabolism and excretion  
- Mechanism of action  
- Medication response relationships  
- Medication interactions  
- Toxicity | AEMT Material PLUS:  
Complex depth, comprehensive breadth  
- Medication safety  
- Medication legislation  
- Naming  
- Classifications  
- Schedules  
- Pharmacokinetics  
- Storage and security  
- Autonomic pharmacology  
- Metabolism and excretion  
- Mechanism of action  
- Phases of medication activity  
- Medication response relationships  
- Medication interactions  
- Toxicity |
<table>
<thead>
<tr>
<th>Medication Administration</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
</table>
| **EMR** | Simple depth, simple breadth  
Within the scope of practice of the EMR, how to  
• Self-administer medication  
• Peer-administer medication | **EMR Material PLUS:**  
Fundamental depth, foundational breadth  
Within the scope of practice of the EMT how to  
• Assist/administer medications to a patient | **EMT Material PLUS:**  
Fundamental depth, foundational breadth  
• Routes of administration  
• Within the scope of practice of the AEMT, administer medications to a patient | **AEMT Material PLUS:**  
Complex depth, comprehensive breadth  
• Routes of administration  
• Within the scope of practice of the paramedic, administer medications to a patient |
| **Emergency Medications** | Simple depth, simple breadth  
Within the scope of practice of the EMR  
• Names  
• Effects  
• Indications  
• Routes of administration  
• Dosages for the medications administered | **EMR Material PLUS:**  
Fundamental depth, simple breadth  
Within the scope of practice of the EMT  
• Names  
• Actions  
• Indications  
• Contraindications  
• Complications  
• Routes of administration  
• Side effects  
• Interactions  
• Dosages for the medications administered | **EMT Material PLUS:**  
Fundamental depth, foundational breadth  
Within the scope of practice of the AEMT  
• Names  
• Actions  
• Indications  
• Contraindications  
• Complications  
• Routes of administration  
• Side effects  
• Interactions  
• Dosages for the medications administered | **AEMT Material PLUS:**  
Complex depth, comprehensive breadth  
Within the scope of practice of the paramedic  
• Names  
• Actions  
• Indications  
• Contraindications  
• Complications  
• Routes of administration  
• Side effects  
• Interactions  
• Dosages for the medications administered |
<table>
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<tr>
<th>Airway Management, Respiration and Artificial Ventilation</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
<tbody>
<tr>
<td>Applies knowledge (fundamental depth, foundational breadth) of general anatomy and physiology to assure a patent airway, adequate mechanical ventilation, and respiration while awaiting additional EMS response for patients of all ages.</td>
<td>Applies knowledge (fundamental depth, foundational breadth) of general anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.</td>
<td>Applies knowledge (fundamental depth, foundational breadth) of additional upper airway anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.</td>
<td>Integrates complex knowledge of anatomy, physiology, and pathophysiology into the assessment to develop and implement a treatment plan with the goal of assuring a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.</td>
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<td><strong>Airway Management</strong></td>
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<td><strong>AEMT Material PLUS:</strong></td>
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<td>Fundamental depth, simple breadth</td>
<td>Fundamental depth, foundational breadth</td>
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<td>Within the scope of practice of the EMT</td>
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<td>• Airway assessment</td>
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<td>• Techniques of assuring a patent airway</td>
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<td>• Pulmonary ventilation</td>
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<td><strong>Ventilation</strong></td>
<td>Assessment and management of adequate</td>
<td>Fundamental depth, foundational breadth</td>
<td>• Artificial ventilation</td>
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<td>and inadequate ventilation</td>
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<tr>
<td><strong>Assessment</strong></td>
<td>Use scene information and simple patient assessment findings to identify and manage immediate life threats and injuries within the scope of practice of the EMR.</td>
<td>Applies scene information and patient assessment findings (scene size up, primary and secondary assessment, patient history, and reassessment) to guide emergency management.</td>
<td>Same as Previous Level</td>
<td>Integrate scene and patient assessment findings with knowledge of epidemiology and pathophysiology to form a field impression. This includes developing a list of differential diagnoses through clinical reasoning to modify the assessment and formulate a treatment plan.</td>
</tr>
<tr>
<td><strong>Scene Size-Up</strong></td>
<td>Complex depth, comprehensive breadth</td>
<td>EMR Material PLUS: Fundamental depth, foundational breadth</td>
<td>Same as Previous Level</td>
<td>AEMT Material PLUS: Complex depth, comprehensive breadth</td>
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<td></td>
<td>• Scene safety</td>
<td>• Scene management</td>
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<td>Fundamental depth, foundational breadth</td>
<td>o Multiple patient situations</td>
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<td>o Impact of the environment on patient care</td>
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<td>• Scene management</td>
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<td>o Addressing hazards</td>
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<td>o Impact of the environment on patient care</td>
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<td>o Violence</td>
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<td>o Addressing hazards</td>
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<td>o Multiple patient situations</td>
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<td>o Violence</td>
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<td></td>
<td>o Need for additional or specialized resources</td>
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<td>o Standard precautions</td>
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</tbody>
</table>
| **Primary Assessment** | Simple depth, simple breadth  
- Primary assessment for all patient situations  
  o Level of consciousness  
  o ABCs  
  o Identifying life threats  
  o Assessment of vital functions  
- Begin interventions needed to preserve life | **EMR Material PLUS:** Fundamental depth, simple breadth  
- Primary assessment for all patient situations  
  o Initial general impression  
  o Level of consciousness  
  o ABCs  
  o Identifying life threats  
  o Assessment of vital functions  
- Integration of treatment/procedures needed to preserve life | **EMT Material PLUS:** Fundamental depth, foundational breadth  
- Primary assessment for all patient situations  
  o Initial general impression  
  o Level of consciousness  
  o ABCs  
  o Identifying life threats  
  o Assessment of vital functions  
- Integration of treatment/procedures needed to preserve life | **AEMT Material PLUS:** Complex depth, comprehensive breadth  
- Primary assessment for all patient situations  
  o Initial general impression  
  o Level of consciousness  
  o ABCs  
  o Identifying life threats  
  o Assessment of vital functions  
- Integration of treatment/procedures needed to preserve life |
| **History Taking** | Simple depth, simple breadth  
- Determining the chief complaint  
- Mechanism of injury/nature of illness  
- Associated signs and symptoms | **EMR Material PLUS:** Fundamental depth, foundational breadth  
- Investigation of the chief complaint  
- Mechanism of injury/nature of illness  
- Past medical history  
- Associated signs and symptoms  
- Pertinent negatives | **Same as Previous Level** | **AEMT Material PLUS:** Complex depth, comprehensive breadth  
- Components of the patient history  
- Interviewing techniques  
- How to integrate therapeutic communication techniques and adapt the line of inquiry based on findings and presentation |
| **Secondary Assessment** | Simple depth, simple breadth  
- Performing a rapid full body scan  
- Focused assessment of pain  
- Assessment of vital signs | **EMR Material PLUS:** Fundamental depth, foundational breadth  
- Techniques of physical examination  
  - Respiratory system  
    o Presence of breath sounds  
  - Cardiovascular system  
  - Neurological system  
  - Musculoskeletal system  
  - All anatomical regions | **EMT Material PLUS:** Complex depth, foundational breadth  
- Assessment of  
  - Lung sounds | **AEMT Material PLUS:** Complex depth, comprehensive breadth  
- Techniques of physical examination for all major  
  - Body systems  
  - Anatomical regions |
<table>
<thead>
<tr>
<th>Monitoring Devices</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
</tr>
</thead>
</table>
| No knowledge related to this competency is applicable at this level. | Simple depth, simple breadth Within the scope of practice of the EMT  
- Obtaining and using information from patient monitoring devices including (but not limited to)  
  - Pulse oximetry  
  - Non-invasive blood pressure | EMT Material PLUS: Within the scope of practice of the AEMT  
Simple depth, simple breadth  
- Obtaining and using information from patient monitoring devices including (but not limited to)  
  - Blood glucose determination | AEMT Material PLUS:  
Fundamental depth, foundational breadth  
Within the scope of practice of the paramedic  
- Obtaining and using information from patient monitoring devices including (but not limited to):  
  - Continuous ECG monitoring  
  - 12 lead ECG interpretation  
  - Carbon dioxide monitoring  
  - Basic blood chemistry |
| Reassessment | Simple depth, simple breadth  
- How and when to reassess patients | EMR Material PLUS:  
Fundamental depth, foundational breadth  
how and when to perform a reassessment for all patient situations | Same as Previous Levels | AEMT Material PLUS:  
Complex depth, comprehensive breadth  
- How and when to perform a reassessment for all patient situations |
<table>
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<tr>
<th>Medicine</th>
<th>EMR</th>
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<th>AEMT</th>
<th>Paramedic</th>
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</thead>
<tbody>
<tr>
<td>Recognizes and manages life threats based on assessment findings of a patient with a medical emergency while awaiting additional emergency response.</td>
<td>Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.</td>
<td>Applies fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely ill patient.</td>
<td>Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression and implement a comprehensive treatment/disposition plan for a patient with a medical complaint.</td>
<td></td>
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<tr>
<td>Simple depth, simple breadth Assessment and management of a • Medical complaint</td>
<td>EMR Material PLUS: Simple depth, foundational breadth Pathophysiology, assessment, and management of a medical complaints to include • Transport mode • Destination decisions</td>
<td>EMT Material PLUS: Fundamental depth, foundational breadth Pathophysiology, assessment, and management of a medical complaints to include • Transport mode • Destination decisions</td>
<td>AEMT Material PLUS: Complex depth, comprehensive breadth Pathophysiology, assessment, and management of medical complaints to include • Transport mode • Destination decisions</td>
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<td>Neurology</td>
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<td>Simple depth, simple breadth</td>
<td><strong>EMR Material PLUS:</strong> Fundamental depth, foundational breadth</td>
<td><strong>EMT Material PLUS:</strong> Complex depth, foundational breadth</td>
<td><strong>AEMT Material PLUS:</strong> Complex depth, comprehensive breadth</td>
<td>Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of</td>
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<tr>
<td>Anatomy, presentations, and management of</td>
<td>Anatomy, physiology, pathophysiology, assessment and management of</td>
<td>Anatomy, physiology, pathophysiology, assessment and management of</td>
<td>Complex depth, comprehensive breadth</td>
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<tr>
<td>• Decreased level of responsiveness</td>
<td>• Stroke/ transient ischemic attack</td>
<td>• Stroke</td>
<td>Stroke/intracranial hemorrhage/transient ischemic attack</td>
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<td>• Seizure</td>
<td>• Seizure</td>
<td>• Status epilepticus</td>
<td>Seizure</td>
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<tr>
<td>• Stroke</td>
<td>• Stroke</td>
<td>• Headache</td>
<td>Status epilepticus</td>
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</table>

**EMT Material PLUS:** Anatomy, physiology, pathophysiology, assessment and management of

- Stroke/ transient ischemic attack
- Seizure
- Status epilepticus
- Headache

**AEMT Material PLUS:** Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of

- Stroke/intracranial hemorrhage/transient ischemic attack
- Seizure
- Status epilepticus
- Headache

- Dementia
- Neoplasms
- Demyelinating disorders
- Parkinson’s disease
- Cranial nerve disorders
- Movement disorders
- Neurologic inflammation/ infection
- Spinal cord compression
- Hydrocephalus
- Wernicke’s encephalopathy
<table>
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<td>Simple depth, simple breadth</td>
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<td>Same as Previous Level</td>
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<td>Anatomy, presentations and management of shock associated with abdominal emergencies</td>
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<td>Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of</td>
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<td>• Gastrointestinal bleeding</td>
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<td>Complex depth, comprehensive breadth</td>
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<td>• Acute and chronic gastrointestinal hemorrhage</td>
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<td>• Peritonitis</td>
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<td>• Liver disorders</td>
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• Anaphylactic reactions | EMT Material PLUS:  
Complex depth, comprehensive breadth  
Anatomy, physiology, pathophysiology, assessment, and management of hypersensitivity disorders and/or emergencies  
• Allergic and anaphylactic reactions | AEMT Material PLUS:  
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• Pituitary and thyroid disorders |  
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<td><strong>Respiratory</strong></td>
<td>Simple depth, simple breadth Anatomy, signs, symptoms and management of respiratory emergencies including those that affect the • Upper airway • Lower airway</td>
<td><strong>EMR Material PLUS:</strong> Anatomy, physiology, pathophysiology, assessment, and management of Fundamental depth, foundational breadth • Epiglottitis • Spontaneous pneumothorax • Pulmonary edema • Asthma • Chronic obstructive pulmonary disease • Environmental/industrial exposure • Toxic gas Simple depth, simple breadth • Pertussis • Cystic fibrosis • Pulmonary embolism • Pneumonia • Viral respiratory infections</td>
<td><strong>EMT Material PLUS:</strong> Complex depth, foundational breadth Anatomy, physiology, pathophysiology, assessment, and management of • Asthma • Obstructive/restrictive disease • Pneumonia</td>
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<td><strong>AEMT Material PLUS:</strong> Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, management of Complex depth, comprehensive breadth • Acute upper airway infections • Spontaneous pneumothorax • Obstructive/restrictive lung diseases • Pulmonary infections Fundamental depth, foundational breadth • Neoplasm • Pertussis • Cystic fibrosis</td>
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**Paramedic**
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<tr>
<td>No knowledge related to this competency is applicable at this level.</td>
<td>Simple depth, simple breadth Anatomy, physiology, pathophysiology, assessment, and management of • Sickle cell crisis • Clotting disorders</td>
<td>EMT Material PLUS: Fundamental depth, foundational breadth Anatomy, physiology, pathophysiology, assessment and management of • Sickle cell crisis</td>
<td>AEMT Material PLUS: Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of common or major hematological diseases and/or emergencies Complex depth, foundational breadth • Sickle cell disease Fundamental depth, foundational breadth • Blood transfusion complications • Hemostatic disorders • Lymphomas • Red blood cell disorders • White blood cell disorders • Coagulopathies</td>
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| Genitourinary/Renal | Simple depth, simple breadth  
• Blood pressure assessment in hemodialysis patients | EMR Material PLUS:  
Simple depth, simple breadth  
Anatomy, physiology, pathophysiology, assessment, and management of  
• Complications related to  
  o Renal dialysis  
  o Urinary catheter management (not insertion)  
• Kidney stones | EMT Material PLUS:  
Fundamental depth, simple breadth  
Anatomy, physiology, pathophysiology, assessment, and management of  
• Complications related to renal dialysis  
• Kidney stones | AEMT Material Plus:  
Anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, and management of  
Complex depth, comprehensive breadth  
• Complications of  
  o Acute renal failure  
  o Chronic renal failure  
  o Dialysis  
• Renal calculi  
Fundamental depth, foundational breadth  
• Acid base disturbances  
• Fluid and electrolyte  
• Infection  
• Male genital tract conditions |
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<td>Recognition and management of shock associated with</td>
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<td>presentations, prognosis, and management of common or major gynecological</td>
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<td>diseases and/or emergencies</td>
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<td>• Sexual assault (to include appropriate emotional support)</td>
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<td>Diseases of the Eyes, Ears, Nose, and Throat</td>
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<td>Same as Previous Level</td>
<td>AEMT Material Plus: Fundamental depth, foundational breadth Knowledge of anatomy, physiology, epidemiology, pathophysiology, psychosocial impact, presentations, prognosis, management of Common or major diseases of the eyes, ears, nose, and throat, including nose bleed</td>
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<tr>
<td>Uses assessment information to recognize shock, respiratory failure or arrest, and cardiac arrest based on assessment findings and manages the emergency while awaiting additional emergency response.</td>
<td>Applies fundamental knowledge of the causes, pathophysiology, and management of shock, respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management.</td>
<td>Applies fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for a patient in shock, respiratory failure or arrest, cardiac failure or arrest, and post resuscitation management.</td>
<td>Integrates comprehensive knowledge of causes and pathophysiology into the management of cardiac arrest and peri-arrest states. Integrates a comprehensive knowledge of the causes and pathophysiology into the management of shock, respiratory failure or arrest with an emphasis on early intervention to prevent arrest.</td>
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<tr>
<td><strong>Trauma</strong></td>
<td>Uses simple knowledge to recognize and manage life threats based on assessment findings for an acutely injured patient while awaiting additional emergency medical response.</td>
<td>Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely injured patient.</td>
<td>Applies fundamental knowledge to provide basic and selected advanced emergency care and transportation based on assessment findings for an acutely injured patient.</td>
<td>Integrates assessment findings with principles of epidemiology and pathophysiology to formulate a field impression to implement a comprehensive treatment/disposition plan for an acutely injured patient.</td>
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<td><strong>Trauma Overview</strong></td>
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<td>Fundamental depth, foundational breadth Pathophysiology, assessment, and management of the trauma patient • Trauma scoring • Rapid transport and destination issues • Transport mode</td>
<td>Same as Previous Level</td>
<td>AEMT Material Plus: Complex depth, comprehensive breadth Pathophysiology, assessment and management of the trauma patient • Trauma scoring • Transport and destination issues</td>
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<td><strong>EMT Material Plus:</strong> Complex depth, comprehensive breadth • Fluid resuscitation</td>
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<td>• Traumatic aortic disruption</td>
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<td>• Hemothorax</td>
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<td>• Blunt cardiac injury</td>
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<td>• Chemicals in the eye and on the skin</td>
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<td>o Puncture wounds</td>
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- Simple depth, simple breadth
- Recognition and management of
- Wounds
- Burns
- Chemicals in the eye and on the skin
- \( o \) Electrical
- \( o \) Chemical
- \( o \) Thermal

- EMR Material Plus: Fundamental depth, foundational breadth
- Pathophysiology, assessment, and management
- Wounds
  - \( o \) Avulsions
  - \( o \) Bite wounds
  - \( o \) Lacerations
  - \( o \) Puncture wounds
  - \( o \) Incisions
- Burns
  - \( o \) Electrical
  - \( o \) Chemical
  - \( o \) Thermal
  - \( o \) Radiations

- EMT Material Plus: Fundamental depth, simple breadth
- Crush syndrome

- AEMT Material Plus: Complex depth, comprehensive breadth
- Pathophysiology, assessment, and management of
- Wounds
  - \( o \) Avulsions
  - \( o \) Bite wounds
  - \( o \) Lacerations
  - \( o \) Puncture wounds
- Burns
  - \( o \) Electrical
  - \( o \) Chemical
  - \( o \) Thermal
  - \( o \) High-pressure injection
  - \( o \) Crush syndrome
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<td>Recognition and management of</td>
<td>EMR Material Plus:</td>
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<td>Penetrating neck trauma</td>
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<td>Laryngeotracheal injuries</td>
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<td>Laryngeotracheal injuries</td>
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<td>Perforated tympanic membrane</td>
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<td>Complex depth, comprehensive breadth</td>
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<td>Spine trauma</td>
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<td>Dislocations/subluxations</td>
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<td><strong>Nervous System Trauma</strong></td>
<td><strong>No knowledge related to this competency is applicable at this level.</strong></td>
<td><strong>Fundamental depth, foundational breadth</strong>&lt;br&gt;Pathophysiology, assessment, and management of&lt;br&gt;• Traumatic brain injury&lt;br&gt;• Spinal cord injury</td>
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<td><strong>Special Considerations in Trauma</strong></td>
<td><strong>Simple depth, simple breadth</strong>&lt;br&gt;Recognition and management of trauma in&lt;br&gt;• Pregnant patient&lt;br&gt;• Pediatric patient&lt;br&gt;• Geriatric patient</td>
<td><strong>EMR Material Plus:</strong>&lt;br&gt;Fundamental depth, foundational breadth&lt;br&gt;Pathophysiology, assessment, and management of trauma in&lt;br&gt;• Pregnant patient&lt;br&gt;• Pediatric patient&lt;br&gt;• Geriatric patient&lt;br&gt;• Cognitively impaired patient</td>
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<td><strong>Environmental Emergencies</strong></td>
<td>Simple depth, simple breadth Recognition and management of</td>
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<td>• Submersion incidents</td>
<td>Pathophysiology, assessment, and management of</td>
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<td>• Temperature-related illness</td>
<td>• Near drowning</td>
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<td>• Bites and envenomations</td>
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<td>• High-altitude</td>
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<td>• Diving injuries</td>
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<td>• Electrical injury</td>
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<td>• Radiation exposure</td>
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<tr>
<td><strong>Multi-System Trauma</strong></td>
<td>Simple depth, simple breadth Recognition and management of</td>
<td><strong>EMR Material Plus:</strong> Fundamental depth, foundational breadth</td>
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<td>• Multi-system trauma</td>
<td>Pathophysiology, assessment, and management of</td>
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<td>• Multi-system trauma</td>
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<td>• Blast injuries</td>
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<td>Special Patient Populations</td>
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<td>Recognizes and manages life threats based on simple assessment findings for a patient with special needs while awaiting additional emergency response.</td>
<td>Applies a fundamental knowledge of growth, development, and aging and assessment findings to provide basic emergency care and transportation for a patient with special needs.</td>
<td>Applies a fundamental knowledge of growth, development, and aging and assessment findings to provide basic and selected advanced emergency care and transportation for a patient with special needs.</td>
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<tr>
<td>Obstetrics</td>
<td>Simple depth, simple breadth Recognition and management of • Normal delivery • Vaginal bleeding in the pregnant patient</td>
<td><strong>EMR Material Plus:</strong> Fundamental depth, foundational breadth • Anatomy and physiology of normal pregnancy • Pathophysiology of complications of pregnancy • Assessment of the pregnant patient • Management of o Normal delivery o Abnormal delivery ▪ Nuchal cord ▪ Prolapsed cord ▪ Breech delivery o Third trimester bleeding ▪ Placenta previa ▪ Abruptio placenta o Spontaneous abortion/miscarriage o Ectopic pregnancy o Preeclampsia/Eclampsia</td>
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<td>Neonatal care</td>
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<td><strong>Simple depth, simple breadth</strong>&lt;br&gt;• Newborn care&lt;br&gt;• Neonatal resuscitation</td>
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<td>Pediatrics</td>
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|            | Simple depth, simple breadth  
Age-related assessment findings, and age-related assessment and treatment modifications for pediatric-specific major diseases and/or emergencies  
- Upper airway obstruction  
- Lower airway reactive disease  
- Respiratory distress/failure/arrest  
- Shock  
- Seizures  
- Sudden Infant Death Syndrome | **EMR Material Plus:**  
Fundamental depth, foundational breadth  
Age-related assessment findings, age-related, and developmental stage related assessment and treatment modifications for pediatric specific major diseases and/or emergencies  
- Upper airway obstruction  
- Lower airway reactive disease  
- Respiratory distress/failure/arrest  
- Shock  
- Seizures  
- Sudden Infant Death Syndrome  
- Gastrointestinal disease | **Same as Previous Level** | **AEMT Material Plus:**  
Age-related assessment findings, age-related anatomic and physiologic variations, age-related and developmental stage related assessment and treatment modifications of the pediatric-specific major or common diseases and/or emergencies:  
Complex depth, comprehensive breadth  
- Foreign body (upper and lower) airway obstruction  
- Bacterial tracheitis  
- Asthma  
- Bronchiolitis  
  - Respiratory Syncytial Virus (RSV)  
- Pneumonia  
- Croup  
- Epiglottitis  
- Respiratory distress/failure/arrest  
- Shock  
- Seizures  
- Sudden Infant Death Syndrome (SIDS)  
- Hyperglycemia  
- Hypoglycemia  
Fundamental depth, foundational breadth  
- Pertussis |
<table>
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<tr>
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<td>• Cystic fibrosis</td>
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<td>Simple depth, simple breadth</td>
<td>EMR Material Plus: Fundamental depth, foundational breadth</td>
<td>EMT Material Plus: Complex depth, foundational breadth</td>
<td>AEMT Material Plus: Normal and abnormal changes associated with aging, pharmacokinetic changes, psychosocial and economic aspects of aging, polypharmacy, and age-related assessment and treatment modifications for the major or common geriatric diseases and/or emergencies</td>
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<tr>
<td>• impact of age-related changes on assessment and care</td>
<td>Changes associated with aging, psychosocial aspects of aging and age-related assessment and treatment modifications for the major or common geriatric diseases and/or emergencies</td>
<td>• Fluid resuscitation in the elderly</td>
<td>Complex depth, comprehensive breadth</td>
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<td>• Herpes zoster</td>
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<td>Patients with Special Challenges</td>
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<tr>
<td>Simple depth, simple breadth</td>
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<td>EMR Material Plus: Simple depth, simple breadth Healthcare implications of • Abuse • Neglect • Homelessness • Poverty • Bariatrics • Technology dependent • Hospice/ terminally ill • Tracheostomy care/dysfunction • Homecare • Sensory deficit/loss • Developmental disability</td>
<td>EMT Material Plus: Fundamental depth, foundational breadth Healthcare implications of • Abuse • Neglect • Homelessness • Poverty • Bariatrics • Technology dependent • Hospice/ terminally ill • Tracheostomy care/dysfunction • Homecare • Sensory deficit/loss • Developmental disability</td>
<td>AEMT Material Plus: Complex depth, comprehensive breadth Healthcare implications of • Abuse • Neglect • Homelessness • Poverty • Bariatrics • Technology dependent • Hospice/ terminally ill • Tracheostomy care/dysfunction</td>
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<tr>
<td>Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety</td>
<td>Same as Previous Level</td>
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<tr>
<td>Principles of Safely Operating a Ground Ambulance</td>
<td>Simple depth, simple breadth • Risks and responsibilities of emergency response</td>
<td>EMR Material Plus: Simple depth, foundational breadth • Risks and responsibilities of transport</td>
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<tr>
<td>Incident Management</td>
<td>Simple depth, simple breadth • Establish and work within the incident management system</td>
<td>EMR Material Plus: Fundamental depth, foundational breadth • Establish and work within the incident management system</td>
<td>Same as Previous Level</td>
<td>AEMT Material Plus: Complex depth, comprehensive breadth • Establish and work within the incident management system</td>
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<tr>
<td>Incident Management</td>
<td>Simple depth, simple breadth • Triage principles • Resource management</td>
<td>EMR Material Plus: Simple depth, foundational breadth • Triage • Performing • Re-Triage • Destination Decisions • Post Traumatic and Cumulative Stress</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
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<td>Incident Management</td>
<td>Simple depth, simple breadth • Safe air medical operations • Criteria for utilizing air medical response</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
<td>AEMT Material Plus: Complex depth, comprehensive breadth • Medical risks/needs/advantages</td>
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<tr>
<td>Incident Management</td>
<td>Simple depth, simple breadth • Safe vehicle extrication • Use of simple hand tools</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
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<tr>
<td>Incident Management</td>
<td>Simple depth, simple breadth • Risks and responsibilities of operating in a cold zone at a hazardous material or other special incident</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
<td>Same as Previous Level</td>
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<tr>
<td>Mass Casualty Incidents due to Terrorism and Disaster (this section subject to ongoing collective and cooperative review and input from all stakeholders including the Department of Transportation, Department of Homeland Security and the Department of Health and Human Services)</td>
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| Simple depth, simple breadth  
- Risks and responsibilities of operating on the scene of a natural or man made disaster | Same as Previous Level | Same as Previous Level | Same as Previous Level | Same as Previous Level |
## Clinical Behavior/Judgment

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<td><strong>Assessment</strong></td>
<td>Perform a simple assessment to identify life threats, identify injuries requiring immobilization and conditions requiring treatment within the scope of practice of the EMR: including foreign substance in the eyes and nerve agent poisoning.</td>
<td>Perform a basic history and physical examination to identify acute complaints and monitor changes. Identify the actual and potential complaints of emergency patients.</td>
<td>Perform a basic history and physical examination to identify acute complaints and monitor changes. Identify the actual and potential complaints of emergency patients.</td>
<td>Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of a patient. Formulate a field impression based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology, and epidemiology. Relate assessment findings to underlying pathological and physiological changes in the patient’s condition. Integrate and synthesize the multiple determinants of health and clinical care. Perform health screening and referrals.</td>
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<tr>
<td><strong>Therapeutic communication and cultural competency</strong></td>
<td>Communicates to obtain and clearly transmit information with an awareness of cultural differences.</td>
<td>Communicate in a culturally sensitive manner.</td>
<td>Communicate in a culturally sensitive manner.</td>
<td>Effectively communicate in a manner that is culturally sensitive and intended to improve the patient outcome.</td>
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## Clinical Behavior/Judgment

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</table>
| Psychomotor Skills | **Safely and effectively perform all psychomotor skills within the National EMS Scope of Practice Model AND state Scope of Practice at this level.** Airway and Breathing  
- Basic Airway Maneuvers  
- Head-tilt, chin-lift  
- Jaw thrust  
- Modified chin lift  
- FBAO relief - manual  
- Oropharyngeal airway  
- Sellick’s maneuver  
- Positive pressure ventilation devices such as BVM  
- Suction of the upper airway  
- Supplemental oxygen therapy  
- Nasopharyngeal airway  
- Positive pressure ventilation  
- Manually-triggered ventilators  
- Automatic transport ventilators  
- Supplemental oxygen therapy  
- Humidifiers  
- Partial-rebreather mask  
- Venturi mask  
- **Assessment**  
- Pulse oximetry  
- Automatic B/P  | **Safely and effectively perform all psychomotor skills within the National EMS Scope of Practice Model AND state Scope of Practice at this level. Airway and Breathing**  
- Nasopharyngeal airway  
- Positive pressure ventilation  
- Manually-triggered ventilators  
- Automatic transport ventilators  
- Supplemental oxygen therapy  
- Humidifiers  
- Partial-rebreather mask  
- Venturi mask  
- **Assessment**  
- Pulse oximetry  
- Automatic B/P  | **Safely and effectively perform all psychomotor skills within the National EMS Scope of Practice Model AND state Scope of Practice at this level. Airway and Breathing**  
- Airways not intended for insertion into the trachea  
- Esophageal-tracheal  
- Multi-lumen airway  
- Tracheal-bronchial suctioning of an already intubated patient  
- **Assessment**  
- Blood glucose monitor  
- Pharmacologic interventions  
- Establish and maintain peripheral intravenous access  
- Establish and maintain intraosseous access in pediatric patient  
- Administer (nonmedicated) intravenous fluid therapy  
- Sublingual nitroglycerin (chest pain)  
- Subcutaneous or intramuscular epinephrine (anaphylaxis)  
- Glucagon (hypoglycemia)  
- Intravenous 50% dextrose (hypoglycemia)  
- Inhaled beta agonists (wheezing)  
- Intravenous narcotic antagonist (narcotic overdose)  
- Nitrous oxide (pain)  | **Safely and effectively perform all psychomotor skills within the National EMS Scope of Practice Model AND state Scope of Practice at this level. Airway and Breathing**  
- Oral and nasal endotracheal intubation  
- FBAO – direct laryngoscopy  
- Percutaneous cricothyrotomy  
- Pleural decompression  
- BiPAP, CPAP, PEEP  
- Chest tube monitoring  
- ETCO2 monitoring  
- NG/OG tube  
- **Assessment**  
- ECG interpretation  
- 12-lead interpretation  
- Blood chemistry analysis  
- Pharmacologic interventions  
- Intravenous fluid therapy  |
<table>
<thead>
<tr>
<th>Clinical Behavior/Judgment</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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<tr>
<td><strong>Professionalism</strong></td>
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<tr>
<td>Demonstrate professional behavior including: but not limited to, integrity, empathy, self-motivation, appearance/personal hygiene, self-confidence, communications, time-management, teamwork/diplomacy, respect, patient advocacy, and careful delivery of service.</td>
<td>Demonstrate professional behavior including: but not limited to, integrity, empathy, self-motivation, appearance/personal hygiene, self-confidence, communications, time-management, teamwork/diplomacy, respect, patient advocacy, and careful delivery of service.</td>
<td>Demonstrate professional behavior including: but not limited to, integrity, empathy, self-motivation, appearance/personal hygiene, self-confidence, communications, time-management, teamwork/diplomacy, respect, patient advocacy, and careful delivery of service.</td>
<td>Is a role model of exemplary professional behavior including: but not limited to, integrity, empathy, self-motivation, appearance/personal hygiene, self-confidence, communications, time-management, teamwork/diplomacy, respect, patient advocacy, and careful delivery of service.</td>
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<tr>
<td><strong>Decision Making</strong></td>
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<tr>
<td>Initiates simple interventions based on assessment findings.</td>
<td>Initiates basic interventions based on assessment findings intended to mitigate the emergency and provide limited symptom relief while providing access to definitive care.</td>
<td>Initiates basic and selected advanced interventions based on assessment findings intended to mitigate the emergency and provide limited symptom relief while providing access to definitive care.</td>
<td>Performs basic and advanced interventions as part of a treatment plan intended to mitigate the emergency, provide symptom relief, and improve the overall health of the patient. Evaluates the effectiveness of interventions and modifies treatment plan accordingly.</td>
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<tr>
<td><strong>Record Keeping</strong></td>
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<tr>
<td>Patient Complaints</td>
<td>EMR</td>
<td>EMT</td>
<td>AEMT</td>
<td>Paramedic</td>
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<tr>
<td>Perform a patient assessment and provide prehospital emergency care for patient complaints: abdominal pain, abuse/neglect, altered mental status/decreased level of consciousness, apnea, back pain, behavioral emergency, bleeding, cardiac arrest, chest pain, cyanosis, dyspnea, eye pain, GI bleeding, hypotension, multiple trauma, pain, paralysis, poisoning, shock, and stridor/drooling.</td>
<td>Perform a patient assessment and provide prehospital emergency care and transportation for patient complaints: abdominal pain, abuse/neglect, altered mental status/decreased level of consciousness, anxiety, apnea, ataxia, back pain, behavioral emergency, bleeding, cardiac arrest, cardiac rhythm disturbances, chest pain, constipation, cyanosis, dehydration, diarrhea, dizziness/vertigo, dyspnea, edema, eye pain, fatigue, fever, GI bleeding, headache, hematuria, hemoptysis, hypertension, hypotension, joint pain/swelling, multiple trauma, nausea/vomiting, pain, paralysis, pediatric crying/fussiness, poisoning, rash, rectal pain, shock, sore throat, stridor/drooling, syncope, urinary retention, visual disturbances, weakness, and wheezing.</td>
<td>Perform a patient assessment and provide prehospital emergency care and transportation for patient complaints: abdominal pain, abuse/neglect, altered mental status/decreased level of consciousness, anxiety, apnea, ataxia, back pain, behavioral emergency, bleeding, cardiac arrest, cardiac rhythm disturbances, chest pain, constipation, cyanosis, dehydration, diarrhea, dizziness/vertigo, dyspnea, edema, eye pain, fatigue, fever, GI bleeding, headache, hematuria, hemoptysis, hypertension, hypotension, joint pain/swelling, multiple trauma, nausea/vomiting, pain, paralysis, pediatric crying/fussiness, poisoning, rash, rectal pain, shock, sore throat, stridor/drooling, syncope, urinary retention, visual disturbances, weakness, and wheezing.</td>
<td>Perform a patient assessment, develop a treatment and disposition plan for patients with the following complaints: abdominal pain, abuse/neglect, altered mental status/decreased level of consciousness, anxiety, apnea, ascites, ataxia, back pain, behavioral emergency, bleeding, blood and body fluid exposure, cardiac arrest, cardiac rhythm disturbances, chest pain, congestion, constipation, cough/hiccup, cyanosis, dehydration, dental pain, diarrhea, dizziness/vertigo, dysmenorrhea, dysphasia, dyspnea, dysuria, ear pain, edema, eye pain, fatigue, feeding problems, fever, GI bleeding, headache, hearing disturbance, hematuria, hemoptysis, hypertension, hypotension, incontinence, jaundice, joint pain/swelling, malaise, multiple trauma, nausea/vomiting, pain, paralysis, pediatric crying/fussiness, poisoning, pruritus, rash, rectal pain, red/pink eye, shock, sore throat, stridor/drooling, syncope, tinnitus, tremor, urinary retention, visual disturbances, weakness, and wheezing.</td>
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## Clinical Behavior/Judgment

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<th>EMR</th>
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<th>Paramedic</th>
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<tr>
<td><strong>Scene Leadership</strong></td>
<td>Manage the scene until care is transferred to an EMS team member licensed at a higher level arrives.</td>
<td>Entry-level EMTs serve as an EMS team member on an emergency call with more experienced personnel in the lead role. EMTs may serve as a team leader following additional training and/or experience.</td>
<td>Serve as an EMS team leader of an emergency call.</td>
<td>Function as the team leader of a routine, single patient advanced life support emergency call.</td>
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<tr>
<td><strong>Scene Safety</strong></td>
<td>Ensure the safety of the rescuer and others during an emergency.</td>
<td>Ensure the safety of the rescuer and others during an emergency.</td>
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## Educational Infrastructure

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<th>EMR</th>
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</table>
| **Educational Facilities**| • Facility sponsored or approved by sponsoring agency  
• ADA compliant facility  
• Sufficient space for class size  
• Controlled environment | Same as Previous Level                      | Same as Previous Level                    | • Reference Committee on Accreditation for EMS Professions (CoAEMSP)  
Standards and Guidelines (www.coaemsp.org)  | 1 |
| **Student Space**         | • Provide space sufficient for students to attend classroom sessions, take notes and participate in classroom activities  
• Provide space for students to participate in kinematic learning and practice activities | Same as Previous Level                    | Same as Previous Level                    |                                                                           |
| **Instructional Resources**| • Provide basic instructional support material  
• Provide audio, visual, and kinematic aids to support and supplement didactic instruction | Same as Previous Level                    | Same as Previous Level                    |                                                                           |
| **Instructor Preparation Resources** | • Provide space for instructor preparation  
• Provide support equipment for instructor preparation | Same as Previous Level                    | Same as Previous Level                    |                                                                           |
| **Storage Space**         | • Provide adequate and secure storage space for instructional materials | Same as Previous Level                    | Same as Previous Level                    |                                                                           |

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1 The *National EMS Education Agenda for the Future: A Systems Approach* calls for national accreditation of Paramedic programs. CoAEMSP is currently the only national agency that offers EMS paramedic education program accreditation; it is used or recognized by most States. While the CoAEMSP Standards and Guidelines are adopted for the Education Infrastructure section, this does not itself require the program to be CoAEMSP accredited. Recognition of national accreditation is the responsibility of each State.
<table>
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<th>Educational Infrastructure</th>
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<tr>
<td><strong>EMR</strong></td>
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| Sponsorship | • Sponsoring organizations shall be one of the following:  
  • Accredited educational institution, or  
  • Public safety organization, or  
  • Accredited hospital, clinic, or medical center, or  
  • Other State approved institution or organization  
  
  Same as Previous Level | Same as Previous Level |
| Programmatic Approval | • Sponsoring organization shall have programmatic approval by authority having jurisdiction for program approval (State)  
  
  Same as Previous Level | Same as Previous Level |
| Faculty | The course primary instructor should  
  • be educated at a level higher than he or she is teaching; however, as a minimum, he or she must be educated at the level he or she is teaching  
  • Have successfully completed an approved instructor training program or equivalent  
  
  Same as Previous Level | Same as Previous Level |
| Medical Director Oversight | • Provide medical oversight for all medical aspects of instruction  
  
  Same as Previous Level | Same as Previous Level |
## Educational Infrastructure

<table>
<thead>
<tr>
<th>Hospital/Clinical Experience</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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<tr>
<td>• None required at this level</td>
<td>• Students should observe emergency department operations for a period of time sufficient to gain an appreciation for the continuum of care. Students must perform ten patient assessments. These can be performed in an emergency department, ambulance, clinic, nursing home, doctor’s office, etc. or on standardized patients if clinical settings are not available.</td>
<td>• The student must demonstrate the ability to safely administer medications (the student should safely, and while performing all steps of each procedure, properly administer medications at least 15 times to live patient).</td>
<td>• The student must demonstrate the ability to safely gain vascular access (the student should safely, and while performing all steps of each procedure, successfully access the venous circulation at least 25 times on live patients of various age groups).</td>
<td>• The student should demonstrate the ability to effectively ventilate unintubated patients of all age groups (the student should effectively, and while performing all steps of each procedure, ventilate at least 20 live patients of various age groups).</td>
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<td>• The student must demonstrate the ability to perform an adequate assessment and formulate and implement a treatment plan for patients with chest pain.</td>
<td>• The student must demonstrate the ability to perform an adequate assessment and formulate and implement a treatment plan for patients with respiratory distress.</td>
<td>• The student must demonstrate the ability to perform an adequate assessment and formulate and implement a treatment plan for patients with respiratory distress.</td>
<td>• The student must demonstrate the ability to perform an adequate assessment and formulate and implement a treatment plan for patients with respiratory distress.</td>
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<tr>
<td>Educational Infrastructure</td>
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<tr>
<td><strong>Field Experience</strong></td>
<td>• None required at this level</td>
<td>• The student must participate in and document patient contacts in a field experience approved by the medical director and program director.</td>
<td>• The student must participate in and document team leadership in a field experience approved by the medical director and program director.</td>
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<tr>
<td><strong>Course Length</strong></td>
<td>• Course length is based on competency, not hours</td>
<td>• Course length is based on competency, not hours</td>
<td>• Course length is based on competency, not hours</td>
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</table>
|  | • Course material can be delivered in multiple formats including but not limited to:  
  • Independent student preparation  
  • Synchronous/Asynchronous distributive education  
  • Face-to-face instruction  
  • Pre- or co-requisites  
  • Course length is estimated to take approximately 48-60 didactic and laboratory clock hours | • Course material can be delivered in multiple formats including but not limited to:  
  • Independent student preparation  
  • Synchronous/Asynchronous distributive education  
  • Face-to-face instruction  
  • Pre- or co-requisites  
  • Course length is estimated to take approximately 150-190 clock hours including the four integrated phases of education (didactic, laboratory, clinical and field) to cover material | • Course material can be delivered in multiple formats including but not limited to:  
  • Independent student preparation  
  • Synchronous/Asynchronous distributive education  
  • Face-to-face instruction  
  • Pre- or co-requisites  
  • Course length is estimated to take approximately 150-250 clock hours beyond EMT requirements including the four integrated phases of education (didactic, laboratory, clinical and field) to cover material |
| **Course Design** | • Provide the following components of instruction:  
  • Didactic instruction  
  • Skills laboratories | • Provide the following components of instruction:  
  • Didactic instruction  
  • Skills laboratories  
  • Hospital/Clinical experience  
  • Field experience | **Same as Previous Level** |
## Educational Infrastructure

<table>
<thead>
<tr>
<th>Student Assessment</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
</table>
| • Perform knowledge, skill, and professional behavior evaluation based on educational standards and program objectives  
• Provide several methods of assessing achievement  
• Provide assessment that measures, as a minimum, entry level competency in all domains | Same as Previous Level | Same as Previous Level | Same as Previous Level | |

<table>
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<tr>
<th>Program Evaluation</th>
<th>EMR</th>
<th>EMT</th>
<th>AEMT</th>
<th>Paramedic</th>
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</thead>
</table>
| • Provide evaluation of program instructional effectiveness  
• Provide evaluation of organizational and administrative effectiveness of program | Same as Previous Level | Same as Previous Level | Same as Previous Level | |
Instructional Guidelines

The Standards are broad to allow for incorporation of evidence-based changes within the profession as they influence practice and to permit diverse presentation methods. The Instructional Guidelines (IG) are not part of the National EMS Education Standards, but are a companion document. The IG are intended to provide guidance to instructors, regulators, and publishers regarding the content that may be included within each area of the Standards, and to provide interim support as EMS instructors and programs transition from the NSC to the National EMS Education Standards. The IG are not intended to be all-inclusive; it is understood that they will become outdated as research, technology, and national organization guidelines dictate changes in patient assessment and care. The IG do not comprise a curriculum and are not intended to be adopted by States.
Glossary for Education Standards

**Academic institution** - A body or establishment instituted for an educational purpose that provides college credit or awards degrees.

**Accreditation** - The granting of approval by an official review board after meeting specific requirements. The review board is nongovernmental, and the review is collegial and based on self-assessment, peer assessment, and judgment. The purpose of accreditation is student protection and public accountability.

**Advanced-level care** - Care that has greater potential benefit to the patient, but also greater potential risk to the patient if improperly or inappropriately performed. It is more difficult to attain and maintain competency in, and requires significant background knowledge in basic and applied sciences. This level of care includes invasive and pharmacological interventions.

**Affective domain** - Describes learning in terms of feelings/emotions, attitudes, and values. (NAEMSE, 2005, p. 306)

**Asynchronous instruction/learning** - An instructional method that allows the learner to use a self directed and self-paced learning format to move through the content of the course. In this type of instruction, learner-to-learner and learner-to-instructor interactions are independent of time and place. Communications and submission of work typically follow a schedule while learners and instructors do not interact at the same time.

**Certification** - The issuing of a certificate by a private agency based upon competency standards adopted by that agency and met by the individual.

**Cognitive domain** - Describes learning that takes place through the process of thinking—it deals with facts and knowledge. (NAEMSE, 2005, p. 306)

**Competency** - Expected behavior or knowledge to be achieved within a defined area of practice.

**Credential** - Generic term referring to all forms of professional qualification.

**Credentialing** - The umbrella term that includes the concepts of accreditation, licensure, registration, and professional certification. Credentialing can establish criteria for fairness, quality, competence, and/or safety for professional services provided by authorized individuals, for products, or for educational endeavors. Credentialing is the process by which an entity, authorized and qualified to do so, grants formal recognition to, or records the recognition status of individuals, organizations, institutions, programs, processes, services, or products that meet predetermined and standardized criteria. (NOCA, 2006)

**Credentialing agency** - An organization that certifies an institution’s or individual’s authority or claim of competence in a course of study or completion of objectives.
Curriculum - A particular course of study, often in a specialized field. For EMS education, it has traditionally included detailed lesson plans.

Didactic - The instructional theory, the lesson content. (NAEMSE, 2005, p. 307)

Distributive education - A generic term used to describe a variety of learning delivery methods that attempt to accommodate a geographical separation (at least for some of the time) of the instructor and learners. Distributed education includes computer and web-based instruction, distance learning through television or video, web-based seminars, video conferencing, and electronic and traditional educational models.

Domains - A category of learning. (See Affective domain, Cognitive domain, and Psychomotor domain.) (NAEMSE, 2005, p. 307)

Entry-level competence - The level of competence expected of an individual who is about to begin a career. The minimum competence necessary to practice safely and effectively.

Health Screening - A test or exam performed to find a condition before symptoms begin. Screening tests may help find diseases or conditions early, when they may be easier to treat. (Medline Plus definition)

Instructional Guidelines - A resource document that provides initial guidance for content within the National EMS Education Standards—it is not a curriculum and should not be adopted by States.

Licensure - The act of granting an entity permission to do something that the entity could not legally do without such permission. Licensing is generally viewed by legislative bodies as a regulatory effort to protect the public from potential harm. In the health care delivery system, an individual who is licensed tends to enjoy a certain amount of autonomy in delivering health care services. Conversely, the licensed individual must satisfy ongoing requirements that ensure certain minimum levels of expertise. A license is generally considered a privilege, not a right.

Medical oversight - Physician review and approval of clinical content and matters relevant to medical authority.

National EMS Core Content - The document that defines the domain of out-of-hospital care.

National EMS Education Program Accreditation - The accreditation process for institutions that sponsor EMS educational programs.

National EMS Education Standards - The document that defines the terminal objectives for each licensure level.

National EMS Scope of Practice Model - The document that defines the scope of practice of the various levels of EMS licensure.
Patient simulation - An alternative to a human patient to help students improve patient assessment and management skills; a high fidelity patient simulator provides realistic simulation that responds physiologically to student therapies. These simulators have realistic features such as chests that rise and fall with respirations, pupils that react to light, pulses that can be palpated, etc.

Post graduate internship and/or experience - Experience gained after the student has completed and graduated from school.

Practice analysis - A study conducted to determine the frequency and criticality of the tasks performed in practice.

Preceptor - A clinical teacher or instructor who is responsible for evaluating and ensuring student progress during hospital and field experiences. This individual typically has training to be able to function effectively in the role.

Primary instructor - A person who possesses the appropriate academic and/or allied health credentials, and understanding of the principles and theories of education, and required instructional experience necessary to provide quality instruction to students. (NAEMSE, 2005, p 309)

Program director - The individual responsible for an educational program or programs.

Psychomotor domain - Describes learning that takes place through the attainment of skills and bodily, or kinesthetic, movements. (NAEMSE, 2005, p309)

Registration agency - An agency that is traditionally responsible for providing a product used to evaluate a chosen area. States may voluntarily adopt this product as part of their licensing process. The registration agency is also responsible for gathering and housing data to support the validity and reliability of their product.

Regulation - A rule or a statue that prescribes the management, governance, or operation parameters for a given group; tends to be a function of administrative agencies to which a legislative body has delegated authority to promulgate rules and regulations to “regulate a given industry or profession.” Most regulations are intended to protect the public health, safety, and welfare.

Scope of practice - The description of what a licensed individual legally can and cannot perform.

Standardized patient - An individual who has been thoroughly trained to accurately simulate a real patient with a medical condition; a standardized patient plays the role of a patient for students learning patient assessment, history taking skills, communication skills, and other skills.
**Standard of care** - The domain of acceptable practice, as defined by scope of practice, current evidence, industry consensus, and experts. Standard of care can vary, depending on the independent variables of each situation.

**Synchronous instruction** - Instructional method whereby learners and instructors interact at the same time, either in the classroom or via a computer driven course. This method allows for more immediate learner guidance and feedback using face-to-face, instant text-based messaging, or real time voice communications.

**Team leader** - Someone who leads the call and provides guidance and direction for setting priorities, scene and patient assessment and management. The team leader may not actually perform all the interventions, but may assign others to do so.
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Physician Advisory Committee
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Bryan Bledsoe, D.O., EMT-P
David C. Cone, M.D.
Art Cooper, M.D.
George Foltin, M.D.
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Andy Jagota, M.D.
Bill Jermy, D.O.
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Robert E. O'Connor, M.D., MPH
Paul E. Phrampus, M.D.
Jeffrey P. Salomone, M.D.
Juliette Saussey, M.D.
Michael Tunik, M.D.
### May 2006 National EMS Education Standards Stakeholders Meeting

#### Representatives

<table>
<thead>
<tr>
<th>Organization</th>
<th>Representative(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Pediatrics</td>
<td>Paul Sirbaugh, D.O.</td>
</tr>
<tr>
<td>American Ambulance Association</td>
<td>Unable to attend</td>
</tr>
<tr>
<td>American College of Emergency Physicians</td>
<td>Bill Jermyn, M.D.</td>
</tr>
<tr>
<td>American College of Surgeons</td>
<td>Unable to attend</td>
</tr>
<tr>
<td>Association of Air Medical Services</td>
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</tr>
<tr>
<td>Committee on Accreditation of EMS Professionals</td>
<td>Art Cooper, M.D.</td>
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<tr>
<td>Emergency Medical Services for Children</td>
<td>Jane Ball, Ph.D., R.N.</td>
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<tr>
<td>Emergency Nurses Association</td>
<td>Fred Neis, R.N., M.S., FACHE, CEN</td>
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<tr>
<td>Health Resources and Services Administration</td>
<td>Dan Kavanaugh, M.S.W., LCSW-C</td>
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<tr>
<td>International Association of Fire Chiefs</td>
<td>David Becker, MA, EFO, EMT-P</td>
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<td>David Garmon, M.Ed., NREMT-P, CCEMT-P</td>
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<td>Joe Grafft, M.S., NREMT-P</td>
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<tr>
<td>National Council of State EMS Training Coordinators</td>
<td>Liza Burrill</td>
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<tr>
<td>National Organization of State Offices of Rural Health</td>
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<tr>
<td>National Registry of EMTs</td>
<td>William Brown, M.S., R.N., NREMT-P</td>
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<td>National Rural Health</td>
<td>Aarron Reinert, B.A., NREMT-P</td>
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<td>Angel Burba, M.S., NREMT-P, NCEE</td>
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<tr>
<td>American Heart Association</td>
<td>Scott Strader</td>
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<td></td>
<td>Jo Haag, R.N., M.S.N.</td>
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<tr>
<td>Brady Publishing</td>
<td>Marlene Pratt, B.A.</td>
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<tr>
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<tr>
<td>Continuing Education Coordinating Board for EMS</td>
<td>Jay Scott, B.S., NREMT-P</td>
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<td>Liz Sibley, M.A.</td>
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<td>Alonzo Smith, B.A., NREMT-P</td>
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<td>Delmar Cengage</td>
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### February 2008 National EMS Education Standards Stakeholders Meeting

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<td>Bill Mergendahl, J.D., EMT-P</td>
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<td>American College of Emergency Physicians</td>
<td>Sabina Braithwaite, M.D.</td>
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<td>American College of Surgeons</td>
<td>Jeffrey Salomone, M.D.</td>
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<td>Association of Air Medical Services</td>
<td>Natasha Ross</td>
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<tr>
<td>Committee on Accreditation of Educational Programs for the EMS Professions</td>
<td>Randy Kuykendall, M.L.S., NREMT-P</td>
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<td>Jim Morehead</td>
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<td>Ritu Sahni, M.D.</td>
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<td>Gary Wingrove</td>
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<td>Office of Preparedness and Emergency Operations</td>
<td>David Marcocci, M.D., MHS-CL, FACEP</td>
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<tr>
<td>U.S. Department of Homeland Security</td>
<td>Joseph Martin, M.S.</td>
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<td>U.S. Fire Administration</td>
<td>John Brasko, M.A., EMT</td>
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<td>Barbara Scotese, B.A. Andrew Pollak, M.D.</td>
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<tr>
<td>American College of Osteopathic Emergency Physicians</td>
<td>Juan Acosta, D.O., FACOEP, FACEP</td>
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<tr>
<td>American Heart Association</td>
<td>Rod Kimble, B.A., EMT-P</td>
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<tr>
<td>American Ambulance Association</td>
<td>Christopher Kerley, CCEMT-P Robert Doyle, B.S., EMT-B, IC</td>
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<tr>
<td>American Medical Response</td>
<td>Scott Bourn, Ph.D., M.S.N, R.N., NREMT-P</td>
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<td>Association of Air Medical Services</td>
<td>Allen Wolfe, R.N., CFRN</td>
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<td>Ann Arundel Community College</td>
<td>Melanie Miller, B.S.N., R.N.</td>
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<tr>
<td>Brady Publishing</td>
<td>Marlene Pratt Sladajana Repic Dan Limmer, A.S., EMT-P</td>
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<tr>
<td>Center for Emergency Medicine of Western Pennsylvania</td>
<td>Walt Stoy, Ph.D.</td>
</tr>
<tr>
<td>City of Phoenix Fire Department</td>
<td>Brenda Suttong, R.N., B.S.N., CEN, NREMT-B Barbara Bovee</td>
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<tr>
<td>Committee F30 on EMS</td>
<td>Paul Roman</td>
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<td>George Hatch, Ed.D.</td>
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<td>Cypress Creek EMS</td>
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<td>Jennifer Starr, B.A. Maria Conuto, M.A.</td>
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<tr>
<td>EMS Institute--Regional EMS Council Southwestern Pennsylvania</td>
<td>Christian Perry, Ph.D., EMT-P</td>
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<td>Eric Co. Medical Center</td>
<td>Jeff Myers, D.O., Ed.M., NREMT-P</td>
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<td>FISDAP</td>
<td>David Page, M.S., NREMT-P</td>
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<tr>
<td>Florida Association of EMS Educators</td>
<td>Nerina Stepanovsky, Ph.D., R.N., EMT-P</td>
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<tr>
<td>George Washington University EMS</td>
<td>Michael Ward, EMT-P, B.S., MGA, MIFireE</td>
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<tr>
<td>Hutchison Community College</td>
<td>Chy Miller, B.S., MICT, IC</td>
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<td>Darrell Grubbs, EMT-B, IC</td>
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<td>Kimberly Brophy</td>
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<td>Loudoun County Department of Fire, Rescue, and Emergency Management</td>
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<tr>
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<tr>
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<tr>
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<td>Shima Safikhani</td>
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<td>Philadelphia Fire Department</td>
<td>Michael Touchstone, B.S., EMT-P</td>
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<td>Victor Valley College</td>
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<td>Virginia Office of EMS</td>
<td>Thomas Nevetral</td>
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<td>Warren Short, B.S., NREMT-P</td>
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<tr>
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<td>Jennifer Ivey, B.S.A.H., NREMT-P</td>
</tr>
<tr>
<td>Western Virginia EMS Council</td>
<td>Deborah Akers, NREMT-P</td>
</tr>
</tbody>
</table>

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Katherine Smith, Executive Coaching, Facilitation and Organizational Counseling, Alexandria, VA

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