Iowa Department of Public Health
Bureau of Emergency and Trauma Services

Iowa Emergency Medical Care Provider Scope of Practice

October 2019

"Protecting and Improving the Health of Iowans"

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Scope of Practice – Defined parameters of various duties or services that may be provided by an individual with specific credentials. Whether regulated by rule, statute, or court decision, it represents the limits of services an individual may legally perform.

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Contents

Introduction 2
Background 2
Overview of the EMS Profession 2
The Evolution of the EMS Agenda for the Future 4
National EMS Educational Standards 5
Interdependent Relationship Between Education, Certification, Licensure, and Credentialing 7
Medical Supervision 8
Pilot Project 8
Scope of Practice versus Standard of Care 8
Description of Iowa EMS Provider Levels 9
Legacy Levels 9
Emergency Medical Responders (EMR) 9
Emergency Medical Technician (EMT) 10
Advanced Emergency Medical Technician (AEMT) 11
Paramedic (PM) 11
Endorsement Level 12
Scope of Practice 13
Assisting with a Skill or Procedure Outside of an Individual's Scope of Practice 13
Blood Testing Devices 13
Airway/Ventilation/Oxygenation 14
Cardiovascular/Circulation 15
Splinting/Spinal Motion Restriction (SMR)/Patient Restraint 15
IV Initiation/Monitoring/Fluids 15
Medication/Administration Routes 16
Miscellaneous 17

DRAFT

Introduction

The *Iowa Emergency Medical Care Provider Scope of Practice* (June 2019) identifies the psychomotor skills and knowledge necessary for the minimum competence of each identified level of state certified EMS provider. Assurance of competency is by completion of an EMS educational program and certifying examinations adhering to established national standards. EMS providers must be educated and verifiably competent in the minimum cognitive, affective, and psychomotor skills needed to ensure safe and effective practice at that level. Eligibility to practice is dependent on education, state certification, and credentialing by the physician medical director. Certified EMS Providers at each level are responsible for all knowledge, judgments, and skills at their level and all levels *preceding* their level.

For the purposes of this document "Scope of practice" is a description of the distinction between certified Iowa EMS providers and the lay public. It describes the authority vested by Iowa in individuals that are certified as EMS providers. In general, the scope of practice focus is on activities regulated by law (for example, starting an intravenous line, administering a medication, etc.). This includes technical skills and procedures that, if done improperly, represent a significant hazard to the patient and therefore must be regulated for public protection. Scope of practice establishes which activities, skills, and procedures that would represent illegal activity if performed without certification.

The Iowa Department of Public Health has the statutory authority (Iowa Code Chapter 147A) and responsibility to regulate EMS within its borders and to determine the scope of practice of State-certified EMS personnel.

Background

The *Iowa Emergency Medical Care Provider Scope of Practice* (June 2019) is based on the *National EMS Scope of Practice Model* produced by the National Association of State EMS Officials (NASEMSO) with support from the US Department of Transportation, National Highway Traffic Safety Administration (NHTSA), Office of Emergency Medical Services (OEMS) and released in September 2018. The *National EMS Scope of Practice Model* is a consensus-based document that was developed to improve the consistency of EMS personnel licensure levels and nomenclature among States. The widespread use and adoption of the previous version of the *National EMS Scope of Practice Model* by most states suggests that it is an accepted national standard.

Overview of the EMS Profession

The *National EMS Scope of Practice Model* provides a resource for defining the practice of Emergency Medical Services (EMS) personnel. EMS clinicians are unique health care professionals in that they provide medical care in many environments, locations, and situations. Much of this care occurs in out-of-hospital settings with little onsite supervision. Physician medical directors provide medical oversight to ensure and maintain safe EMS practices. This medical oversight is occasionally performed in-person by medical directors in the field or through electronic communications, but more

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commonly accomplished through protocol development and quality improvement founded on evidence-based treatment standards and resources such as this *National EMS Scope of Practice Model*. EMS personnel are not independent clinicians, but are expected to execute many treatment modalities based on their assessments and protocols in challenging situations. EMS personnel must be able to exercise considerable judgment, problem-solving, and decision-making skills.

In the vast majority of communities across the nation, residents call for EMS by dialing 9-1-1 when emergency medical care is needed, and the appropriate resources are dispatched. EMS personnel respond and provide care to the patient in the setting in which the patient became ill or injured, including the home, field, recreational, work, and industrial settings. Many of these are in high-risk situations, such as on highways and freeways, violent scenarios, and other unique settings.

Many EMS personnel provide medical transportation services for patients requiring medical care while en-route to or between medical facilities, in both ground and air ambulance entities. These transport situations may originate from emergency scenes, or may be scheduled transports moving patients from one licensed facility to another. The complexity of care delivered by EMS personnel can range from very basic skills to exceptionally complex monitoring and interventions for very high acuity patients.

Medical care at mass gatherings (e.g., concerts or sporting events) and high-risk activities (e.g., fireground operations, or law enforcement tactical operations) are a growing expectation of EMS personnel. EMS personnel sometimes serve in an emergency response or primary care role combined with an occupational setting in remote areas. EMS personnel also work in more traditional health care settings in hospitals, urgent care centers, doctor's offices and long-term care facilities. Finally, EMS personnel are involved in numerous community and public health initiatives, such as working with health care systems to provide non-emergent care and follow up to certain patient populations as well as providing immunizations, illness and injury prevention programs, and other health initiatives.

EMS is a local function and organized in a variety of ways. These include agencies that are volunteer, career, or a combination; agencies that are operated by government, health care system, or private entities; and agencies that are stand-alone EMS, fire-based or law enforcement-based. Common models are municipal government (fire-based or third-service) or a contracted service with a private (profit or nonprofit) entity. Multiple levels of licensure exist for EMS personnel nationally, each offering different levels of scopes of practice. EMS personnel provide medical care to those with emergent, urgent, and in some cases chronic medical needs. EMS is a component of the overall health care system, and delivers care as part of a system intended to reduce the morbidity and mortality associated with illness and injury. EMS care is enhanced through the linking with other community health resources and integration within the health care system.

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The Evolution of the EMS Agenda for the Future

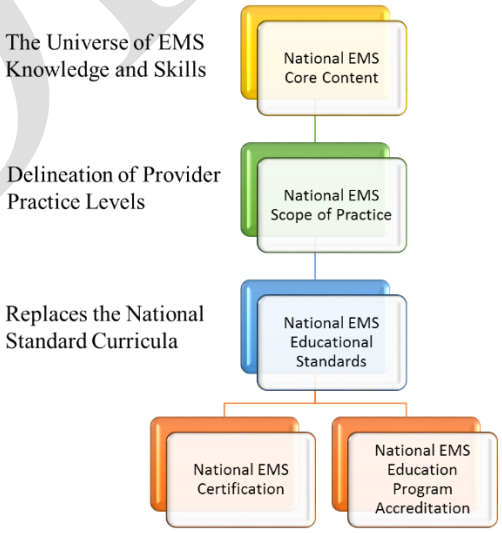
The original *National EMS Scope of Practice Model* was developed in 2007 as one part of the NHTSA's commitment to its *EMS Agenda for the Future*[1] *(EMS Agenda)*. Released in 1996, the *EMS Agenda* established a long-term vision for the future of EMS in the United States:

> "EMS of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and it will be integrated with other health care professionals and public health and safety agencies. It will improve community health and result in a more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net."

As a follow up to the *EMS Agenda*, the *EMS Education Agenda for the Future: A Systems Approach*[2] *(Education Agenda)*, released in 2000, called for the development of a system to support the education, certification and licensure of entry-level EMS personnel that facilitates national consistency:

> "The *Education Agenda* established a vision for the future of EMS education, and called for an improved structured system to educate the next generation of EMS personnel. The *Education Agenda* built on broad concepts from the 1996 *Agenda* to create a vision for an educational system that will result in improved efficiency for the national EMS education process. This was to enhance consistency in education quality ultimately leading to greater entry-level graduate competence."

The *Education Agenda* proposed an EMS education system with five dynamic and integrated components: *National EMS Core Content*, *National EMS Scope of Practice Model*, *National EMS Education Standards*, *National EMS Certification*, and *National EMS Education Program Accreditation*.



[1] EMS Agenda for the Future, NHTSA, August 1996
[2] EMS Education Agenda for the Future: A Systems Approach, NHTSA, 2000

The *National EMS Core Content*[3], released in 2004, defined the domain of out of hospital care. The 2007 *National EMS Scope of Practice Model* divided the core content into levels of practice, defining the minimum corresponding skills and knowledge for each level. Our nation has made great progress in implementing these documents over the preceding decade.

The development and publication of the 2007 *National EMS Scope of Practice Model* represented a transition from the historical connection between scope of practice and the *EMS National Standard Curricula*. The *National EMS Scope of Practice Model* is a consensus document, guided by data and expert opinion that reflects the skills representing the minimum competencies of the levels of EMS personnel.

The *National EMS Education Standards*[4], led by the National Association of EMS Educators (NAEMSE), replaced the NHTSA *National Standard Curricula* at all licensure levels. The *National EMS Education 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 *National EMS Education Standards*.

National EMS Educational Standards

The *National EMS Education Standards* comprise four components:

1. Competency - This statement represents the minimum competency required for entry-level personnel at each licensure level.
2. Knowledge Required to Achieve Competency - 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 - This section describes the clinical behaviors and judgments essential for entry-level EMS personnel at each licensure level.
4. Educational Infrastructure - This section describes the support standards necessary for conducting EMS training programs at each licensure level.

Each statement in the *National EMS Education 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 *National EMS Education 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

[3] National EMS Core Content, NHTSA, July 2005
[4] National EMS Education Standards, NHTSA, January 2009

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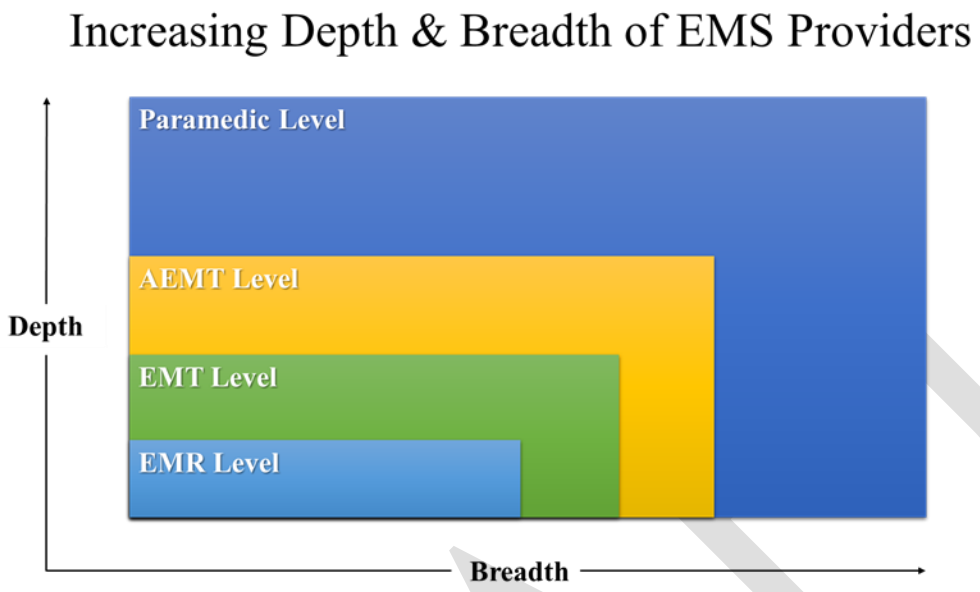
increasing complexity of knowledge and behaviors through the progression of licensure levels originate, in part, from the *National EMS Scope of Practice Model*. These terms reflect the differences in the breadth, depth, and actions required at each licensure level.



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 *National EMS Education Standards* 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 *National EMS Education Standards* 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.

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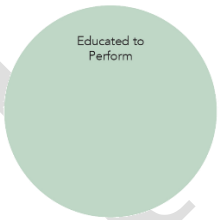
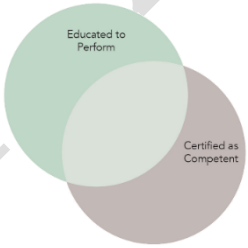
Interdependent Relationship Between Education, Certification, Licensure, and Credentialing

The *National EMS Scope of Practice Model* establishes a framework that ultimately determines the range of skills and roles that an individual possessing a State EMS license or certification is authorized to do on a given day, in a given EMS system. It is based on the notion that education, certification, licensure, and credentialing represent four separate but related activities.

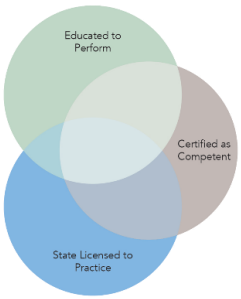
Education includes all of the cognitive, psychomotor, and affective learning that individuals have undergone throughout their lives. This includes entry-level education, continuing professional education, formal and informal learning. Clearly, many individuals have extensive education that in some cases exceeds their EMS skills or roles.



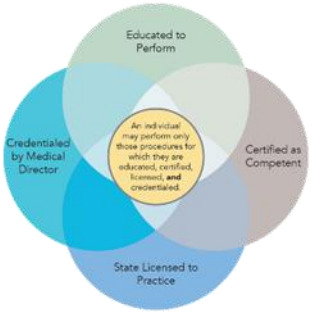
Certification is an external verification of the competencies that an individual has achieved and typically involves an examination process. While certification exams can be set to any level of proficiency, in health care they are typically designed to verify that an individual has achieved minimum competency to assure safe and effective patient care.



Licensure[5] represents legal authority granted to an individual by the State to perform certain restricted activities. Scope of practice represents the legal limits of the licensed individual's performance. States have a variety of mechanisms to define the margins of what an individual is legally permitted to perform. This authority granted by the state is defined as licensure, but some states still use "certification" to describe the same granting of authority to practice for EMS personnel. In these cases, this state authority should not be confused with certification to verify competency as described in the preceding paragraph. Throughout this document, licensure will refer to the authority of the State to grant an individual the ability to practice at a certain level of EMS practitioner, whether or not a State refers to this process as certification.



Credentialing is a clinical determination that is the responsibility of a physician medical director. It is the employer or affiliating organization's responsibility to act on the clinical credentialing status of EMS personnel in making employment and deployment decisions.



[5] Iowa uses "Certification" as the authority granted by the State to legally perform EMS, Iowa Code chapter 272C and Iowa Code chapter 147A

Medical Supervision

EMS medical directors are expected to provide appropriate supervision in the interest of public safety and are obligated to revoke or restrict local credentialing as appropriate. An authorized Iowa EMS medical director may choose to ***limit*** the skills or procedures performed by an Iowa Emergency Medical Care Provider but ***cannot*** authorize a provider to perform skills or procedures outside or beyond the provider's established scope of practice.

Pilot Project

In accordance with IAC 61-131, an EMS medical director and service program may apply to the department for pilot project(s) on a limited basis if they wish to consider skills or procedures currently beyond an Iowa EMS provider's scope of practice. Application form for EMS pilot project(s) can be obtained by contacting the Bureau of Emergency and Trauma Services.

Scope of Practice versus Standard of Care

Scope of practice does not define a standard of care, nor does it define what should be done in a given situation (i.e., it is not a practice guideline or protocol). Scope of practice does define what skills or procedures are legally permitted for some or all of the certified individuals at that identified level, not what must be done to provide patient care.

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Description of Iowa EMS Provider Levels

Legacy Levels

First Responder (1979) (FR)

This EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 1979 FR national standard curriculum (NSC) and successfully completed the department's testing requirements at the time of initial certification. Individuals certified at this level have an Iowa EMS certification number identified with the letter "F". Initial certification at this level is no longer available. Providers who maintain this legacy level certification must operate within the scope of practice of an EMR.

First Responder – Defibrillation (FR-D)

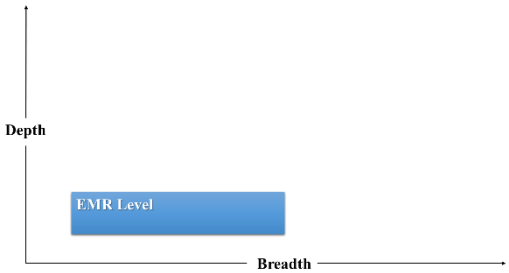
This EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 1979 FR national standard curriculum and the AED supplemental curriculum, and successfully completed the department's testing requirements at the time of initial certification. Individuals certified at this level have an Iowa EMS certification number identified with the letter "G." Initial certification at this level is no longer available. Providers who maintain this legacy level certification must operate within the scope of practice of an EMR.

Emergency Medical Technician – Defibrillation (EMT-D)

This EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 1984 EMT-A national standard curriculum (NSC) and the AED supplemental curriculum, and successfully completed the department's testing requirements at the time of initial certification. Individuals certified at this level have an Iowa EMS certification number identified with the letter "D". Initial certification at this level is no longer available. Providers who maintain this legacy level certification must operate within the scope of practice of an EMT.

Emergency Medical Responders (EMR)

The EMR is an out of hospital practitioner whose primary focus is to initiate immediate lifesaving care to patients while ensuring patient access to the emergency medical services system. EMRs possess the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional EMS response and rely on an EMS or public safety agency or larger scene response that includes other higher-level medical personnel. When practicing in less populated areas, EMRs may have a low call volume coupled with being the only care personnel for prolonged periods awaiting arrival of higher levels of care. EMRs may assist, but cannot be the highest-level person caring for a patient during ambulance transport. EMRs are often the first to arrive on scene. They must quickly assess patient needs, initiate treatment, and request additional resources. EMRs function as part of a



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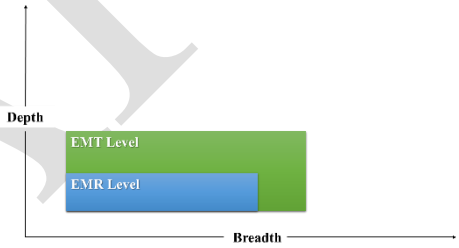
comprehensive EMS response, community, health, or public safety system with clinical protocols and medical oversight. EMRs perform basic interventions with minimal equipment to manage life threats, medical, and psychological needs with minimal resources until other personnel can arrive. EMRs are an important link within the 9-1-1 and emergency medical services systems. The focused and limited scope of this level makes it suitable for employee cross training in settings where emergency medical care is not the EMRs primary job function. Examples include firefighters, law enforcement, lifeguards, backcountry guides, community responders, industrial workers and similar jobs. EMRs advocate health and safety practices that may help reduce harm to the public.

This Iowa EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 2005 National Education Standards for the EMR and successfully completed the department's testing requirements at the time of initial certification or completed the FR to EMR transition requirement. Individuals certified at this level have an Iowa EMS certification number identified with the letters "EMR."

Emergency Medical Technician (EMT)

The primary focus of the EMT 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. EMTs function as part of a comprehensive EMS response, under medical oversight. EMTs perform interventions with the basic equipment typically found on an ambulance.



The EMT is a link from the scene to the emergency health care system. EMTs function as part of a comprehensive EMS response, community, health, or public safety system with defined clinical protocols and medical oversight. EMTs perform interventions with the basic equipment typically found on an ambulance to manage life threats, medical, and psychological needs. EMTs are an important link within the continuum of the emergency care system from an out of hospital response through the delivery of patients to definitive care. The majority of personnel in the EMS system are licensed at the EMT level. The EMT plays many important roles and possesses the knowledge and skill set to initially manage any emergency until a higher level of care can be accessed. In areas where AEMT or Paramedic response is not available, the EMT may be the highest level of EMS personnel a patient encounters before reaching a hospital. EMTs advocate health and safety practices that may help reduce harm to the public.

This EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 2005 National Education Standards for the EMT and successfully completed the department's testing requirements at the time of initial certification, transition from EMT-I 1985+, or completed the EMT-B to EMT transition requirements. Individuals certified at this level have an Iowa EMS certification number identified with the letters "EMT".

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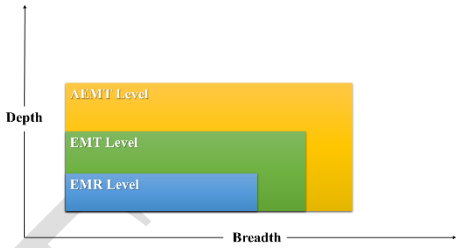
Advanced Emergency Medical Technician (AEMT)

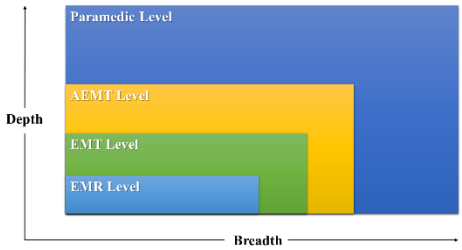
The AEMT is a health professional whose primary focus is to respond to, assess and triage non-urgent, urgent, and emergent requests for medical care. AEMTs apply basic and focused advanced knowledge and skills necessary to provide patient care and/or medical transportation, and facilitate access to a higher level of care when the needs of the patient exceed the capability level of the AEMT. The additional preparation beyond EMT prepares an AEMT to improve patient care in common emergency conditions for which reasonably safe, targeted, and evidence-based interventions exist. Interventions within the AEMT scope of practice may carry more risk if not performed properly than interventions authorized for the EMR/EMT levels. With proper supervision, AEMTs may serve as a patient care team member in a hospital or health care setting to the full extent of their education, certification, licensure, and credentialing. In a community setting an AEMT might visit patients at home and make observations that are reported to a higher-level authority to help manage a patient's care. AEMTs function as part of a comprehensive EMS response, community, health, or public safety system with medical oversight. AEMTs perform interventions with the basic and advanced equipment typically found on an ambulance. AEMTs perform focused advanced skills and pharmacological interventions that are engineered to mitigate specific life-threatening conditions, medical, and psychological conditions with a targeted set of skills beyond the level of an EMT.AEMTs function as an important link from the scene into the health care system. The learning objectives and additional clinical preparation for AEMTs exceed the level of an EMT. In areas where Paramedic response is not available, the AEMT may be the highest level of EMS personnel a patient encounters before reaching a hospital. AEMTs advocate health and safety practices that may help reduce harm to the public.



This EMS provider level identifies individuals who successfully completed a program of training that used, as a minimum, the 2005 National Education Standards for the AEMT and successfully completed the department's testing requirements at the time of initial certification. Individuals certified at this level have an Iowa EMS certification number identified with the letters "AEMT."

Paramedic (PM)

The paramedic is a health professional whose primary focus is to respond to, assess, and triage emergent, urgent, and non-urgent requests for medical care, apply basic and advanced knowledge and skills necessary to determine patient physiologic, psychological, and psychosocial needs, administer medications, interpret and use diagnostic findings to implement treatment, provide complex patient care, and facilitate referrals and/or access to a higher level of care when the needs of the patient exceeds the capability level of the paramedic. Paramedics often



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serve as a patient care team member in a hospital or other health care setting to the full extent of their education, certification, licensure, and credentialing. Paramedics may work in community settings where they take on additional responsibilities monitoring and evaluating the needs of at-risk patients, as well as intervening to mitigate conditions that could lead to poor outcomes. Paramedics help educate patients and the public in the prevention and/or management of medical, health, psychological, and safety issues. Paramedics function as part of a comprehensive EMS response, community, health, or public safety system with advanced clinical protocols and medical oversight. Paramedics perform interventions with the basic and advanced equipment typically found on an ambulance, including diagnostic equipment approved by an agency medical director. Paramedics may provide specialized inter-facility care during transport and are an important link in the continuum of health care. Paramedics commonly facilitate medical decisions at an emergency scene and during transport. Paramedics work in a variety of specialty care settings including but not limited to ground and air ambulances, occupational, in hospital, and community settings. Academic preparation enables paramedics to use a wide range of pharmacology, airway, and monitoring devices as well as to utilize critical thinking skills to make complex judgments such as the need for transport from a field site, alternate destination decisions, the level of personnel appropriate for transporting a patient, and similar judgments. Due to the complexity of the Paramedic scope of practice and the required integration of knowledge and skills, many training programs are moving towards advanced training at the Associate degree or higher level.

This EMS provider level identifies individuals who have successfully completed a program of training that used, as a minimum, the 2005 National Education Standards for the Paramedic and successfully completed the department's testing requirements at the time of initial certification or completed the EMT-P to Paramedic transition requirements and successfully completed the department's testing requirements at the time of transition. Individuals certified at this level have an Iowa EMS certification number identified with the letters "PM" or "PARA".

Endorsement Level

Critical Care Paramedic (CCP)

This EMS provider endorsement identifies individuals who hold a valid Iowa Paramedic certification and have successfully completed an Iowa approved Critical Care Paramedic program. Individuals holding a valid endorsement as a CCP and working for an approved CCP transporting service (CCT) may perform CCP skills under medical oversight and approved protocol.

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Scope of Practice

The following charts and information identify the authorized skills and procedures (*Scope of Practice*) for each level of certified Iowa Emergency Medical Care Provider. Iowa Emergency Medical Care Providers may ***only*** perform skills and procedures authorized (indicated by an X in the charts) within their active Iowa certification level and approved by their service program medical director.

Assisting with a Skill or Procedure Outside of an Individual's Scope of Practice

Multiple situations occur where a higher level certified EMS provider performing certain skills or procedures could benefit from the assistance of a lower level certified EMS provider. In these situations, a lower level certified EMS provider may provide non-invasive assistance to a higher level certified EMS provider with skills or procedures normally outside of their identified scope of practice ***only*** under the following conditions:

- The higher level certified EMS provider is operating within their authorized scope of practice, and
- The higher level certified EMS personnel performs the invasive or key portion(s) of the skill or procedure which makes the skill within the scope of practice of a higher level provider, and
- The assistance of the lower level certified EMS provider is in the physical presence and physical supervision of the higher level certified EMS provider, and
- The service program's medical director has approved the lower level certified EMS provider to assist the higher level certified EMS provider and established in the service program's protocols what assistance is deemed acceptable

Example of assistance: An EMR or EMT may assist an AEMT or Paramedic with the preparation/assembly of a non-medicated intravenous bag and related hardware while the AEMT or Paramedic inserts an intravenous catheter.

NOTE: The service program's medical director ***may not*** authorize an EMS provider to perform skills beyond the provider's current certification level or scope of practice or independently perform the invasive or key portion(s) of the skill or procedure expressly designated as a skill within a scope of practice higher than the provider is currently certified.

Blood Testing Devices

The use of blood testing devices (e.g. glucometers) by EMS personnel invokes the federal-level Clinical Laboratory Improvement Amendments (CLIA) to the Public Health Services Act (42 CFR 493, Laboratory Requirements, 2011). Iowa EMS programs utilizing blood testing devices are required to comply with appropriate CLIA.

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Airway/Ventilation/Oxygenation

Skill - Procedure	EMR	EMT	AEMT	PM	CCP
Airway – nasal		X	X	X	X
Airway – oral	X	X	X	X	X
Airway – supraglottic	X	X	X	X	X
Bag-valve-mask (BVM)	X	X	X	X	X
BiPAP/CPAP – Adult (13 years or >)		X	X	X	X
Chest decompression – needle				X	X
Chest tube placement – assist only				X	X
Chest tube – monitoring/management				X	X
Crichothyrotomy – percutaneous				X	X
Crichothyrotomy – surgical					X
End Tidal CO_2 ($ETCO_2$) – monitoring of non-waveform capnometry		X	X	X	X
End Tidal CO_2 ($ETCO_2$) – monitoring and interpretation of waveform capnography			X	X	X
Gastric decompression – NG/OG tube				X	X
Head tilt-chin lift	X	X	X	X	X
Endotracheal intubation – nasal/oral				X	X
Jaw thrust	X	X	X	X	X
Mouth-to-barrier	X	X	X	X	X
Mouth-to-mask	X	X	X	X	X
Mouth-to-mouth	X	X	X	X	X
Mouth-to-nose	X	X	X	X	X
Mouth-to-stoma	X	X	X	X	X
Obstruction – direct laryngoscopy				X	X
Obstruction – manual dislodgement	X	X	X	X	X
Oxygen therapy – high flow nasal cannula				X	X
Oxygen therapy – humidifier		X	X	X	X
Oxygen therapy – nasal cannula	X	X	X	X	X
Oxygen therapy – non-rebreather mask	X	X	X	X	X
Oxygen therapy – partial rebreather mask		X	X	X	X
Oxygen therapy – simple mask	X	X	X	X	X
Oxygen therapy – venturi mask		X	X	X	X
Pulse oximetry		X	X	X	X
Suctioning – upper airway	X	X	X	X	X
Suctioning – tracheobronchial of intubated patient			X	X	X
Ventilator[6]		X			
Ventilator[7]			X		
Ventilator[8]				X	X

[6] EMT may initiate or maintain use of ventilator without making adjustments to any settings
[7] AEMT may only adjust ventilator setting of rate, tidal volume, and inspiratory time setting
[8] PM & CCP may adjust ventilator setting established by protocol/physician orders

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Cardiovascular/Circulation

Skill - Procedure	EMR	EMT	AEMT	PM	CCP
Cardiac monitoring, non-interpretive – ***limited*** to ECG acquisition/transmission		X	X		
Cardiac monitoring, interpretive				X	X
Cardioversion – electrical				X	X
Defibrillation – automated/semiautomated	X	X	X	X	X
Defibrillation – manual				X	X
Hemorrhage control – direct pressure, tourniquet, wound packing	X	X	X	X	X
Mechanical CPR device	X	X	X	X	X
Telemetric monitoring devices, transmission of clinical/video data		X	X	X	X
Transcutaneous pacing				X	X
Transvenous cardiac pacing – monitoring and maintenance				X	X
Vagal maneuver techniques				X	X

Splinting/Spinal Motion Restriction (SMR)/Patient Restraint

Skill – Procedure	EMR	EMT	AEMT	PM	CCP
Cervical collar	X	X	X	X	X
Long spine board		X	X	X	X
Manual cervical stabilization	X	X	X	X	X
Seated SMR (e.g. KED, etc)		X	X	X	X
Extremity stabilization - manual	X	X	X	X	X
Extremity splinting	X	X	X	X	X
Splint – traction		X	X	X	X
Mechanical patient restraint		X	X	X	X
Emergency moves for endangered patients	X	X	X	X	X

IV Initiation/Monitoring/Fluids

Skill – Procedure	EMR	EMT	AEMT	PM	CCP
Access indwelling catheters and implanted central IV ports				X	X
Central line monitoring				X	X
Intraosseous initiation – adult or pediatric			X	X	X
Intravenous access			X	X	X
Intravenous initiation – peripheral			X	X	X
Maintenance/monitoring – blood/blood product				X	X
Maintenance/monitoring – non-medicated IV[9]			X	X	X
Maintenance/monitoring – medicated IV				X	X

[9] Non-medicated IV fluids limited to pre-mixed D_5W, Normal Saline (NS), or Lactated Ringers (LR)

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Medication/Administration Routes[10]

Skill – Procedure	EMR	EMT	AEMT	PM	CCP
Aerosolized/nebulized route *				X	X
* ***Limited To Use Of*** Aerosolized/nebulized route for beta agonist/bronchodilator and anticholinergic for dyspnea and wheezing only		X	X		
Endotracheal tube route				X	X
Inhaled route *				X	X
* ***Limited To Use Of*** Inhaled route for patient-administered nitrous oxide only			X		
Intradermal route				X	X
Intramuscular (IM) route *			X	X	X
* ***Limited To Use Of*** Intramuscular (IM) route for auto-injector for opioid antagonist	X	X			
* ***Limited To Use Of*** Intramuscular (IM) auto-injector route to self or peer administration for chemical/hazardous material antidote	X	X			
* ***Limited To Use Of*** Intramuscular (IM) route auto-injector epinephrine for anaphylaxis (supplied and carried by the EMS Program)		X			
Intranasal route *			X	X	X
* ***Limited To Use Of*** Intranasal route for opioid antagonist that is unit-dosed in premeasured syringe	X	X			
Intraosseous (IO) route *				X	X
* ***Limited To Use Of*** Intraosseous (IO) route for pain analgesia, epinephrine during cardiac arrest, dextrose, glucagon, ondansetron, and opioid antagonist			X		
Intravenous (IV) route *				X	X
* ***Limited To Use Of*** Intravenous (IV) route for pain analgesia, epinephrine during cardiac arrest, dextrose, glucagon, ondansetron, and opioid antagonist			X		
Nasogastric route				X	X
Mucosal/sublingual route/buccal *			X	X	X
* ***Limited To Use Of*** Sublingual route for nitroglycerin for chest pain suspected ischemic origin and use of patient's own prescribed medication		X			
* ***Limited To Use Of*** Buccal route for glucose for suspected hypoglycemia		X			

[10] This table indicates what medication routes are permissible by provider level and secondarily, specific medication limitations that may exist associated with each route and provider level.

Medication/Administration Routes - continued[11]

Skill – Procedure	EMR	EMT	AEMT	PM	CCP
Oral Route *			X	X	X
* ***Limited To Use Of*** Oral route for aspirin for chest pain suspected ischemic origin		X			
* ***Limited To Use Of*** Oral route for glucose for suspected hypoglycemia		X			
* ***Limited To Use Of*** Oral route for over the counter (OTC) analgesics for pain or fever		X			
* ***Limited To Use Of*** Other oral over the counter (OTC) medications				X	X
Rectal route				X	X
Subcutaneous (SC) route				X	X
Topical routes				X	X
Topical over the counter (OTC) medications				X	X
Transdermal routes				X	X

Miscellaneous

Skill – Procedure	EMR	EMT	AEMT	PM	CCP
Assisted delivery (childbirth)	X	X	X	X	X
Blood chemistry analysis				X	X
Blood glucose monitor - glucometry		X	X	X	X
Blood sampling – arterial					X
Blood sampling – venous			X	X	X
Circulatory augmentation device monitoring					X
Eye irrigation	X	X	X	X	X
Hemodynamic monitoring – central/arterial					X
ICP monitoring					X
Monitoring – arterial line					X

[11] This table indicates what medication routes are permissible by provider level and secondarily, specific medication limitations that may exist associated with each route and provider level.