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Executive Summary - Revision Pending

The National EMS Scope of Practice Model ("Practice Model") is a continuation of the commitment of the National Highway Traffic Safety Administration and the Health Resources and Services Administration to the implementation of the EMS Agenda for the Future. It is part of an integrated, interdependent system, first proposed in the EMS Education Agenda for the Future: A Systems Approach that endeavors to maximize efficiency, consistency of instructional quality, and student competence.

The Practice Model supports a system of EMS personnel licensure that is common in other allied health professions and is a guide for States in developing their Scope of Practice legislation, rules, and regulation. States following the National EMS Scope of Practice Model as closely as possible will increase the consistency of the nomenclature and competencies of EMS personnel nationwide, facilitate reciprocity, improve professional mobility and enhance the name recognition and public understanding of EMS.

The Practice Model defines and describes four levels of EMS licensure: Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced EMT (AEMT), and Paramedic. Each level represents a unique role, set of skills, and knowledge base. National EMS Education Standards will be developed for each level. When used in conjunction with the National EMS Core Content, National EMS Certification, and National EMS Education Program Accreditation, the Practice Model and the National EMS Education Standards create a strong and interdependent system that will provide the foundation to assure the competency of out-of-hospital emergency medical personnel throughout the United States.

Add summary of key points with completion of the draft.
I. BACKGROUND

Overview of the EMS Profession

The 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. Medical oversight is provided through physician medical direction and protocol development based on evidence based treatment standards and resources such as this document. EMS personnel are not independent clinicians, but are expected to execute many treatment modalities based on their assessments and protocols in challenging situations. They must be able to exercise considerable judgment, problem-solving, and decision-making skills.

Most EMS personnel work in career or volunteer emergency medical organizations that respond to emergency calls. Emergency response is often provided by local government through publicly operated fire or EMS departments, or contracted to a private entity by local government. In the vast majority of communities, residents call for EMS by dialing 9-1-1 when they need emergency medical care, 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, work, industrial, and recreational settings. Too 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 enroute 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 care facility to another. In many cases, EMS personnel provide “critical care” level medical care during interfacility transfers of 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) have become an expectation of EMS personnel. EMS personnel sometimes serve in an emergency response or primary care role combined with an occupational setting in remote areas (e.g., off-shore oil rigs and wildland fires). 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 healthcare 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. 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/certification exist for EMS personnel, each offering different levels of scopes of practice. EMS personnel may function at any of these

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levels in career settings with typically larger fire and/or EMS departments, or they may be volunteers, providing a level of care to communities for no, or very little, remuneration. 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.

The Evolution of the EMS Agenda for the Future
The 2007 Practice Model was developed as one part of the National Highway Traffic Safety Administration’s commitment to the EMS Agenda for the Future. Released in 1996, the EMS Agenda for the Future established a long-term vision for the future of EMS in the United States. According to the Agenda,

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 for the Future, The EMS Education Agenda for the Future: A Systems Approach (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 a 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 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. The National EMS Core Content, released in 2004, defined the domain of out-of-hospital care. The 2007 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.
Now in 2017, it is time to update several of these landmark documents. A process to update the original EMS Agenda for the Future is underway (http://emsagenda2050.org). The 2007 Practice Model also needs review. Several forces have combined to make this need a reality:

1. As states have widely implemented the Practice Model, many have chosen to add skills to their authorized scopes of practice beyond the floor called for in the national model.
2. EMS research is providing new evidence about the effectiveness of interventions in the out of hospital setting.
3. Our nation is facing new health problems including explosive growth in opiate abuse, threats of violence and terrorism, and new challenges related to a growing population over the age of 65.
4. The National EMS Information System is maturing to provide information about what levels of EMS personnel are performing which skills and interventions.

The development and publication of the Practice Model represents a transition from the historical connection between scope of practice and the EMS National Standard Curricula. The 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.

This update of the Practice Model is a natural and expected activity in assuring that our EMS personnel are prepared to meet the needs and expectations of the communities they serve.

Implementation of the 2007 National EMS Scope of Practice Model

EMS crews today are better equipped than ever for the worst kinds of emergencies, from cardiac arrests and gunshot victims to car crashes and other life-threatening emergencies. In its “Future of Emergency Care” series, the National Academies of Science, Engineering, and Medicine (formerly known as the Institute of Medicine) envisioned high integration of the emergency and trauma care systems to function effectively. “Operationally,” said the NASEM, “this means that all of the key players in a given region...must work together to make decisions, deploy resources, and monitor and adjust system operations based on performance feedback.” A system that attracted a generation of emergency care personnel depicted in the popular 1970’s television series, “Emergency,” is now faced with the realities of providing care in a fragmented health care system with limited resources, overcrowded emergency departments, inadequate mental health resources, a nationwide opioid epidemic, escalating domestic and street violence, hazardous material risks and exposures, high consequence infectious disease, an aging population with complex needs, increasing threats from terrorism and other mass casualty events that require 24/7 operational readiness along with constant non-urgent social, medical, and transport requests that were not fully contemplated in the 2007 Practice Model. These competing concerns illustrate a crucial need to find innovative strategies to improve EMS care delivery inside and outside the boundaries of an ambulance. The licensure of EMS personnel, like that of other health care licensure systems, is part of an integrated and comprehensive system to improve patient care and safety and to protect the public. The challenge facing the EMS community
including regulators is to develop a system that establishes national standards for personnel licensure and their minimum competencies while remaining flexible enough to meet the unique needs of State and local jurisdictions.

According to the 2011 National EMS Assessment, 826,111 licensed EMS personnel encounter nearly 37 million patients a year in the United States and reflects a multi-billion dollar enterprise. Implementing the 2007 Practice Model required consideration of funding, reimbursement, transition courses, grandfathering of current personnel, development of educational and instructional support materials, workforce issues, labor negotiations, impact on volunteerism, and other important issues. The majority of states required legislative and rulemaking changes but the effort resulted in four nationally recognized levels of EMS clinicians as described by the 2007 Practice Model compared to at least 44 different levels of EMS personnel certification reported in the United States in 1996.

According to data collected by the National Association of State EMS Officials in 2014, 100% of states use the SOP Model as the minimum allowable psychomotor skill set at the EMT and paramedic levels. 76% of states are using the Practice Model as the minimum allowable psychomotor skill set at the EMR level and 88% of states are using the Practice Model as the minimum allowable psychomotor skill set at the AEMT level. Several states are still transitioning the Intermediate-85 level to AEMT, with an estimation that this effort will be completed by March 2018.

According to data collected by the National Association of State EMS Officials in 2014, 90% of states effectively require National EMS Program Accreditation at the Paramedic level. As of June 25, 2017, the Commission on Accreditation of Allied Health Education Programs (CAAHEP), the largest programmatic accreditor in the health sciences field lists accredited EMS programs at the paramedic level in ALL 50 states. 537 paramedic programs have successfully completed the accreditation process and are fully accredited, a 92% increase in the number of nationally accredited paramedic programs from 2007. Another 153 paramedic programs hold a Letter of Review (LoR) from CAAHEP (meaning that they are actively engaged in the accreditation process.)

According to real time data available from the National Registry of Emergency Medical Technicians as of June 30, 2017:

- 24 States and the District of Columbia require National EMS Certification as a basis for initial state licensure at the EMR level. An additional 4 States utilize National EMS Certification as an optional or alternate entry process at the EMR level. 22 States do not license EMRs.
- 43 States and the District of Columbia require National EMS Certification as a basis for initial state licensure at the EMT level. An additional 4 States utilize National EMS

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Certification as an optional or alternate entry process at the EMR level. 4 States maintain a state-based or combination process for certification and licensure at this level.

- 37 States and the District of Columbia require National EMS Certification as a basis for initial state licensure at the AEMT level. An additional 4 States utilize National EMS Certification as an optional or alternate entry process at the AEMT level. 10 States do not license AEMT’s.

- 46 States and the District of Columbia require National EMS Certification as a basis for initial state licensure at the paramedic level. An additional 3 States utilize National EMS Certification as an optional or alternate entry process at the paramedic level. 2 States maintain a state-based process for certification and licensure at this level.

**Approach to Revising the National EMS Scope of Practice Model**

Since the original 2007 *Practice Model* document, the evidence for which interventions and treatments are useful and effective in an EMS setting has expanded significantly. Similarly, growing interest in EMS research is putting a sharper focus on how specific interventions are affecting the care and outcomes of patients in the out of hospital setting.

This 2017 document makes use of a Patient, Population, or Problem, Intervention, Comparison, and Outcome (PICO) Model to examine five clinical topics relevant to EMS treatment. The topics were selected for a systematic review of literature for consideration as high priority issues requiring analysis due to the frequency or need of the interventions being provided at different levels from the 2007 *Practice Model* in some States. These are:

1. Use of opioid antagonists by all levels of EMS personnel
2. Therapeutic hypothermia in cardiac arrest (i.e. Targeted temperature management)
3. Pharmacological pain management following an acute traumatic event
4. Hemorrhage control (i.e. tourniquets and hemostatic dressings)
5. CPAP/BiPAP at the EMT level

Two limitations on using evidence to establish an EMS scope of practice are:

1. While evidence may tell us what is or is not effective, it generally does not suggest what level(s) of EMS personnel are appropriate to perform a specific intervention, and;
2. There are still limitations on the evidence base for much of what is included in an EMS scope of practice.

As the 2017 *National EMS Scope of Practice Model* has been developed it has relied upon extensive literature review, systematic analysis of policy documents regarding health care licensing and patient safety, the input of a subject matter expert panel, and extensive public input.
Analysis and research on patient safety, scope of practice, and EMS personnel competency must remain a priority among the leadership of national associations, Federal agencies, and research institutions. When EMS data collection, subsequent analysis, and scientific conclusions are published and replicated, later versions of the Practice Model should be driven by those findings.

The Role of State Government

Insert FARBER paper/SCOTUS case describing this broadly about health care professions.

Each State has the statutory authority and responsibility to regulate EMS within its borders, and to determine the scope of practice of State-licensed EMS personnel. The Practice Model is a consensus-based document that was developed to improve the consistency of EMS personnel licensure levels and nomenclature among States; it does not have any regulatory authority.

The Practice Model will continue to serve EMS in the future as it is revised and updated to include changes in medical science, new technology, and research findings.

The Practice Model identifies the psychomotor skills and knowledge necessary for the minimum competence of each nationally identified level of EMS personnel. This model will be used to develop the National EMS Education Standards, national EMS certification exams, and national EMS educational program accreditation. Under this model, to be eligible for State licensure, EMS personnel must be verifiably competent in the minimum knowledge and skills needed to ensure safe and effective practice at that level. This competence is assured by completion of a nationally accredited educational program and national certification.

While each State has the right to establish its own levels of EMS personnel and their scopes of practice, staying as close to this model as possible, and especially not going below it for any level, will facilitate reciprocity, standardize professional recognition, and decrease the necessity of each State developing its own education and certification materials. The National EMS Education Standards, national certification, national educational program accreditation, and publisher-developed instructional support material provide States with essential infrastructure support for each nationally defined EMS licensure level.

The adoption of skills and roles beyond those proposed in this model will diminish national consistency and may impede interstate mobility and legal recognition for EMS personnel. Additionally, content in future national EMS education standards, national certification examinations, and curriculum-focused aspects of national education program accreditation standards will continue to be consistent with the Practice Model and may not be appropriate for State use if there is significant State deviation from the Model. This will necessitate States developing and implementing State-specific educational content, education program approval, certification examinations, credentialing processes, and quality assurance procedures.
Some States permit licensed EMS personnel to perform skills and roles beyond the minimum skill set as they gain knowledge, additional education, experience, and (possibly) additional certification (See also Section III Specialty Care Delivered by Licensed EMS Personnel.) Care must be taken to consider the level of cognition necessary to perform a skill safely. For instance, some skills may appear simple to perform, but require considerable clinical judgment to know when they should, and should not, be performed.

II. UNDERSTANDING PROFESSIONAL SCOPE OF PRACTICE

Overview

“Scope of practice” is a legal description of the distinction between licensed health care personnel and the lay public and among different licensed health care professionals. It describes the authority vested by a state in individuals that are licensed within that state. In general, scopes of practice focus on activities that are regulated by law (for example, starting an intravenous line, administering a medication, etc.). This includes technical skills 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 and procedures that would represent illegal activity if performed without a license. In addition to drawing the boundaries between the professionals and the layperson, scope of practice also defines the boundaries among professionals, creating either exclusive or overlapping domains of practice.

Scope of Practice is a description of what a licensed individual legally can, and cannot, do.

This Practice Model should be used by the states to develop scope of practice legislation, rules, and regulation. The specific mechanism that each State uses to define the State’s scope of practice for EMS personnel varies. State scopes of practice may be more specific than those included in this model and may specifically identify both the minimum and maximum skills and roles of each level of EMS licensure.

Generally, changing a law is more difficult than changing a regulation; changing a regulation is more difficult than changing a policy.

Scopes of practice are typically defined in law, regulations, and/or policy documents. Some states include specific language within the law, regulation or policy, while others refer to a separate document using a technique known as “incorporation by reference.”. The Practice Model provides a mechanism to implement comparable EMS scopes of practice between states.

Scopes of practice need not define every activity of a licensed individual (for example, lifting and moving patients, taking a blood pressure, direct pressure for bleeding control, etc.). The
Practice Model includes suggested verbiage for the state scopes of practice in the section entitled “EMS Personnel Scopes of Practice.” The interpretive guidelines (Appendix A) include a more detailed list of skills discussed by the National EMS Scope of Practice Subject Matter Expert Panel. These skills, which generally should not appear in scope of practice regulatory documents, are included to provide the user with greater insight as to the deliberations and discussion of the group.

The Interdependent Relationship Between Education, Certification, Licensure, and Credentialing

The Practice Model establishes a framework that ultimately determines the range of skills and roles that an individual possessing a State EMS license 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 represents permission 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.

Credentialing is a local process by which an individual is permitted by a specific entity (medical director) to practice in a specific setting (EMS agency). Credentialing processes vary in sophistication and formality.

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For every individual, these four domains are of slightly different relative sizes. However, one concept remains constant: an individual may only perform a skill or role for which that person is:

- educated (has been trained to do the skill or role), AND
- certified (has demonstrated competence in the skill or role), AND
- licensed (has legal authority issued by the State to perform the skill or role), AND
- credentialed (has been authorized by medical director to perform the skill or role).

This relationship is represented graphically in Fig. 1.

*Figure 1: The Relationship among education, certification, licensure, and credentialing.*

The center of Fig 1, where all the four elements overlap, represents skills and roles for which an individual has been educated, certified, licensed by a State, and credentialed. This is the only acceptable region of performance, as it entails four overlapping and mutually dependent levels of public protection: education, certification, licensure, and credentialing.

Individuals may perform those procedures for which they are educated, certified, licensed, AND credentialed.

A significant risk to patient safety occurs when EMS personnel are placed into situations and roles for which they are not experientially or educationally prepared. It is the shared

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responsibility of medical oversight, clinical and administrative supervision, regulation, and quality assurance to ensure that EMS personnel are not placed in situations where they exceed the State’s scope of practice. For the protection of the public, regulation must assure that EMS personnel are functioning within their scope of practice, level of education, certification, and credentialing process. Figure 2 illustrates the interconnections among education, certification of baseline competency, licensing by a regulating body, and credentialing by an agency and its medical director.

Figure 2: Skill and role situations not covered by all four elements for protection of the public.

Region “A”: represents skills and roles for which an individual has received education, but is neither certified, licensed, nor credentialed. For example, an EMT in a paramedic class is taught paramedic level skills; despite being trained, the EMT cannot perform those skills until such time that he is certified, licensed, and credentialed by the Local EMS Medical Director.

Region “B”: represents skills and roles in which an individual has been educated and certified, but are not part of the State license and credentialing. For example, a Paramedic is educated and certified in needle cricothyrotomy. Should he be functioning in a State in which that skill is prohibited for Paramedics, it would now be out of his scope of practice, and cannot be performed in that setting.
Region “C”: represents skills and roles for which an individual is educated, certified, and licensed, but has no credentialing. For example, an off duty Paramedic arriving at the scene of an incident outside of his jurisdiction usually is not credentialed to perform advanced skills. In this case, performing an advanced skill would represent a violation of his scope of practice.

Region “D”: represents skills or roles the State has authorized (licensed) but which also require local entities to assure the education, competence, and provide medical direction. For example, rapid sequence intubation (RSI) in some States is legally permitted, but usually not taught as part of the initial education, nor is it part of the certification process, and most medical directors do not credential individuals to perform RSI. Some individuals (for example, flight paramedics) may perform RSI; however, the local medical director assumes a larger responsibility for training, competency verification, and medical direction.

Region “E”: represents skills or roles which a medical director wants an individual to perform but for which he has not been educated, certified, or licensed. There is considerable State-to-State variability in dealing with this situation. Most States have regulations that restrict licensed individuals from functioning beyond their scope of practice, and may take action against an individual who performs a skill or role for which they are not licensed. In contrast, some States have regulatory mechanisms that enable a local physician to assume complete responsibility for the performance of skills and roles performed by an individual. Most States fall somewhere between these extremes and have mechanisms by which local medical directors can appeal for an expansion/waiver of a scope of practice if they can demonstrate need and appropriate mechanism to reasonably assure patient safety.

In many States, day-to-day clarification of scopes of practice, management of the “appeal process,” or otherwise assuring the adequacy of medical direction is the role of the State EMS Medical Director. Some States have licensure boards, often consisting of medical directors, administrators, peers, and public representatives that help adjudicate and clarify scope of practice issues.

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**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). It defines what is legally permitted to be done by some or all of the licensed individuals at that level, not what must be done. Table 1 describes some of the differences between scope of practice and standard of care.

<table>
<thead>
<tr>
<th>Scope of Practice</th>
<th>Standard of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td></td>
</tr>
<tr>
<td>Deals with the question, “Are you/were you <em>allowed</em> to do it?”</td>
<td>Deals with the question, “Did you do the right thing and did you do it properly?”</td>
</tr>
<tr>
<td><strong>Legal implications</strong></td>
<td></td>
</tr>
<tr>
<td>Act of commission is a criminal offense</td>
<td>Acts of commission or omission not in conformance with the standard of care may lead to civil liability</td>
</tr>
<tr>
<td><strong>Variability</strong></td>
<td></td>
</tr>
<tr>
<td>May vary from individual to individual. Does not vary based on circumstances.</td>
<td>Situational, depends on many variables</td>
</tr>
<tr>
<td><strong>Defined by</strong></td>
<td></td>
</tr>
<tr>
<td>Established by statute, rules, regulations, precedent, and/or licensure board interpretations</td>
<td>Determined by scope of practice, literature, expert witnesses, and juries</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td></td>
</tr>
<tr>
<td>It is difficult to regulate knowledge through scope of practice.</td>
<td>Used to evaluate the totality of circumstances. What would a reasonable EMS person do in the same or similar circumstances?</td>
</tr>
</tbody>
</table>
A Comprehensive Approach to Safe and Effective Out-of-Hospital Care

Scope of practice is only one part of health care regulation, and regulation is only one component of a comprehensive approach to improved patient care and safety. The primary goal of state regulation of EMS personnel is to protect the public from harm by ensuring they possess a minimum level of competency and professional behaviors. Safe and effective EMS care is the cumulative effect of a cascade of many individual decisions involving every level of EMS leadership, medical direction, supervision, management, and regulation. Safe and effective patient care is the first priority and shared responsibility of everybody within an EMS agency and the EMS system. Safe and effective care cannot be accomplished through any single activity, but is best accomplished with an integrated system of checks and balances. All components of this comprehensive approach to safe and effective patient care are mutually supportive of and dependent upon each other.

Figure 3: A comprehensive approach to safe and effective out-of-hospital care.
III. SPECIAL CONSIDERATIONS

Liability in EMS Licensing

A license is the official or legal permission to engage in or perform a regulated activity. In the United States, state governments generally hold the authority to issue licenses including EMS licenses. This is important because states ultimately need to be in a position to halt EMS people from performing in ways that are dangerous or harmful to the public.

Licensing differs from certification in that certification is an affirmation of competence while licensing is the authorization to perform the regulated health care activity. EMS personnel most commonly function on behalf of some volunteer or career organization that acts in a supervisory relationship as the person’s employer.

EMS personnel have functioned in a supervisory medical direction relationship by physicians since the 1960s. This physician oversight has been invaluable in assuring and improving the quality of care provided by EMS personnel. The close relationship of EMS personnel and physicians in this evolving healthcare discipline and descriptions of medical direction in early EMS curricula has led to the impression and belief by some that medical direction physicians are extending their licenses to authorize EMS practice. The logic of that belief would be that if an EMS person acted incompetently or dangerously, the state would take an action on the medical direction physician’s license. Not only would that be ineffective in halting the EMS person’s practice, it would put at risk the physician who might be in a position to help correct whatever the problem with the EMS person’s practice is.

The concept that EMS personnel are somehow practicing “under the physician’s license” is simply not accurate. The umbrella of physician supervision and collaboration can never be used to replace the certification, scope of practice and individual responsibility of the licensed EMS person. EMS personnel need to hold their own license so that the relevant state authority can restrict or remove to stop incompetent practice.

Scope of Practice for Special Populations

EMS personnel are expected to meet the urgent health care needs of all patients with consideration to age, race, gender, cultural, religious, and ethnic considerations consistent with their defined scope of practice. Recognized special populations include, but may not be limited to, children, older patients, lesbian, gay, bisexual, and transgender (LGBT) patients, bariatric patients, patients with disabilities, and patients with limited access to health care due to geographic, demographic, socioeconomic, or other reasons.

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 Scope of Practice During Disasters, Public Health Emergencies, and Extraordinary Circumstances

The Practice Model is intended to cover a range of situations and circumstances where EMS personnel may provide emergency care. It is virtually impossible to create a scope of practice that takes into account every unique situation, extraordinary circumstance, and possible practice situation. In some cases, EMS personnel may be the only medically trained individuals at the scene of a disaster when other health care resources are overwhelmed. This document cannot account for every situation, but rather is designed to establish a system that works for entry-level personnel under normal circumstances. States may wish to modify or expand the scope of practice of EMS personnel in times of disaster or crisis with proper education, medical oversight, and quality assurance to reasonably protect patient safety.

 Scope of Practice for EMS Personnel Functioning in Nontraditional Roles

The delivery of health care has been transformed over the last half-century by exponential and significant advances in medicine, research, and technology. The increasing portability and affordability of diagnostic and treatment equipment and the demand to increase care quality while reducing the cost of providing it has changed the demand for health care services in ways that were not envisioned with the passage of the National Highway Safety Act in 1966. EMS personnel are identifying volunteer and employment opportunities in a range of nontraditional settings that fulfill an important public health, public safety, and patient care need, such as large-scale concerts, sporting events and festivals, industrial, frontier and wilderness environments, wildland fire settings, community health, and more. Enabled by progressive rulemaking, occupational partners and innovative health care systems have been successfully utilizing educated, experienced, and licensed EMS personnel in patient care settings, such as health clinics and hospitals, for the past several years and they have become recognized as an invaluable member of the health care team. States with practice restrictions based on location are encouraged to review existing laws, regulations, and policies to identify barriers that prevent EMS personnel from functioning at a level they have been educated, certified, licensed, and credentialed by the state, and develop solutions that allow them to function in any setting to the full extent of their education and training.

Specialty Care Delivered by Licensed EMS Personnel

Specialization of EMS personnel continues to be an evolving area of interest to the national EMS community. This reflects a broader specialization trend that has occurred in medicine for over a century as well ongoing specialization in nursing and other allied health fields. In general, specialization occurs in response to an identified need for an expanded body of knowledge and skills that are best served by a formal supplemental educational and credentialing process. In many instances throughout healthcare the development and oversight of a specialty recognition process is lead by health professionals through specialty boards and implemented in conjunction with state regulators. This approach effectively combines national consistency achieved through the specialty certification process with the legal authority to practice.

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Specialty recognition, credentialing, or endorsement is the outcome of a formally defined process and mechanism for actively assessing that an individual possesses and has mastered a unique body of knowledge over and above entry-level cognitive, affective, and psychomotor domains and that they can apply this knowledge and related skill set to improve care provided for patients. Numerous health care and non-healthcare professions regulated by states have one or more specialty certification areas that have been defined, in part, by members of the profession itself. Several EMS specialties have emerged since the 2000 release of the National Highway Traffic Safety Administration’s (NHTSA) EMS Education Agenda for the Future: A Systems Approach.

Integration of specialty care requires appropriate educational preparation, a rigorous certification process, integration with state scope of practice regulations, and local credentialing by the medical director and EMS agency.

The legal authority for personnel to practice is established by state legislative action. Licensure authority prohibits anyone from practicing a profession unless they are licensed and authorized by the state, regardless of whether or not the individual has been certified by a nongovernmental or private organization.

States often approach specialization policy though two mechanisms. The first is development of an additional licensure level beyond those described in this model. The second is to enact scope of practice regulations at the state level that allow for additional practice, often called an endorsement, in addition to an existing license level. This second approach is used extensively in the medical and nursing professions. Both approaches benefit from ongoing cooperation and coordination with non-governmental specialty boards.

Military to Civilian EMS Transition

Military corpsmen face combat wounds in some of the harshest conditions that the majority of civilian EMS personnel will likely never see and they are undoubtedly well qualified to serve a domestic mission to achieve zero preventable deaths in the war on trauma (#ZPD2025). While support for military to civilian EMS transition is broad, the cognitive, affective, and psychomotor coursework for medical corpsmen is variable depending on the individual service member’s military assignment, which makes determining related equivalency and awarding experiential credit for military service across five armed services branches somewhat complex. Much work has been done to identify pathways for military corpsmen to transition to civilian EMS positions:

- The U.S. Department of Defense has consolidated health care specialist training across the armed services branches to a single operational center via the Medical Education and Training Campus (METC) at Fort Sam Houston, TX. METC is working to ensure that more service-required education and training programs satisfy the ever-increasing course completion requirements of the civilian sector.
EMS programs are increasingly providing “advanced placement” evaluation and assistance to separating service members, particularly at the AEMT and paramedic levels.

States have developed an updated model for conducting EMS personnel licensure evaluations including the integration of EMS licensees from other states and from the military setting.

Course completion of a program that meets or exceeds the National Emergency Medical Services Education Standards (NEMSES) documents that an individual has fulfilled entry-level education requirements that leads to National EMS Certification provided by the National Registry of Emergency Medical Technicians (NREMT). Active NREMT Certification has been demonstrated to be the most expeditious path for military personnel to seek EMS licensure with the states.

IV. GENERAL DISCUSSION

An EMS Subject Matter Expert Panel, seated to consider the revision of the Practice Model, convened its first in person meeting on June 1-2, 2017 in Washington, DC. The expert panel has been encouraged to use an evidence-based approach to revising the SOP Model, specifically:

1. Is there evidence that the procedure or skill is beneficial to public health?
2. What is the clinical evidence that the new skill or technique as used by EMS personnel will promote access to quality healthcare or improve patient outcomes?

While the discussion and conclusions are not binding and should not be considered as a final recommendation at this time, the value of providing the context of ongoing discussions to the EMS community is desired. The expert panel received a systematic review of literature on five priority topics at their recent meeting and summaries are provided as follows:

1. Use of opioid antagonists at the BLS level

The expert panel reached consensus that the use of opioid antagonists was appropriate by EMRs and EMTs if the individual possesses the necessary educational preparation, experience and knowledge to properly administer an opioid antagonist via unit-dose, premeasured, intranasal or autoinjector routes and suggest that the execution of the procedures shall include the identification and discrimination of expected and unexpected human responses and the post-treatment management of administering opioid antagonists to EMS patients with suspected opioid overdose. Because the implementation of this practice serves an urgent patient care need, a “change notice” (i.e. recommendation) has been transmitted to NHTSA for consideration.

2. Therapeutic hypothermia following cardiac arrest

Upon the review of literature, the expert panel reached consensus that the American Heart Association and others suggest that there is no demonstrated benefit on patient outcomes with implementing this procedure, and therefore, should not be included in the Practice Model.
3. Pharmacological pain management following an acute traumatic event

2,086 articles were extracted to evaluate pain management practices in the EMS environment but they were inconclusive to answer the PICO question: (P) In patients requiring pain management following an acute traumatic event in the prehospital setting, (I) can EMT and AEMT’s administer pharmacological pain medications (C) compared to paramedics (O) safely and effectively? The panel discussed a variety of options and issues including alternatives to opioids, the use of nitrous oxide at the AEMT level, intranasal administration of fentanyl at the EMT level, diversion and accountability issues, pain management practices in the military environment, the use of “approved” medication lists (i.e. does this practice limit flexibility or enhance definitions), and the use of over-the-counter medications by EMTs. The topic is still under review by the expert panel.

4. Hemorrhage control

The Hartford Consensus advocates TKTs for use by “immediate responders” to include tourniquets (TKTs) when indicated. The national “Stop the Bleed” campaign includes hemorrhage control education specifically for non-medically trained individuals and this training addresses proper TKTs use. TKTs are already in the SOP for EMTs and the use of this device should be expanded to include all levels of prehospital personnel.

Direct pressure for control of active bleeding is already a component of the SoPM for hemorrhage control at all levels. The discussion surrounding this topic, therefore, focused on the role of wound packing with and without hemostatic agents to address junctional (axilla, neck and groin) wounds. Evidence supports wound packing when combined with application of direct pressure to control active bleeding. Hemostatic-impregnated gauze has been shown to be more effective than plain gauze for this purpose, although both can effectively control bleeding.

Hemostatic-impregnated gauze is currently included in many publicly-available bleeding control kits. It was also noted that hemostatic dressings are available to the general public in many forms for purchase over-the-counter and without prescription. Wound packing is an important component of the training offered to immediate responders as part of the national “Stop the Bleed” campaign and it is a skill that should be available to all personnel levels within the SoPM.

Because the implementation of hemorrhage control, including wound packing, serves an urgent patient care need, a recommendation by the expert panel for an expedited update to the SoPM is currently being considered.

5. Use of CPAP/BiPAP at the EMT level

The literature with regard to this topic was extensively reviewed. Although the data supporting this practice at the BLS level was minimal, several panelists reported good outcomes in State pilot projects evaluating the practice at the EMT level. Discussion included the impact on intubation rates, risk of mortality, inclusion criteria, PEEP vs. CPAP, and consideration/comparison of other respiratory therapies (such as bronchodilators). The topic is still under review by the expert panel.
6. Nomenclature and the use of international models to advise the Practice Model

Over the last several years, a conversation has begun among national organizations in support of EMS to consider updating the nomenclature relating to EMS personnel and the provision of out-of-hospital care in the U.S. It is noted that there are models for nomenclature used in other countries' EMS systems that may prove to be of value in these discussions. The expert panel supports the need for continued national dialogue in this regard.

7. Additional topics currently under consideration

The expert panel reviewed several suggestions that have been submitted by the EMS community via an on-line form. After participating in a brainstorming session and nominal group process, the panel identified several priorities for moving forward. While this is not a comprehensive list of all elements the expert panel is currently reviewing, key points include:

- Spinal motion restriction at the EMT level
- Blood glucose monitoring, bronchodilators, CPAP, and epinephrine at the EMT level
- Ultrasound at the paramedic level
- Need and criteria for licensure level above paramedic
- Definitions for critical care
- Calculating drug doses/use of vials and syringes by EMTs
- Patient transport at the EMR level
- I/O for adults
- Blood administration by paramedics
- High flow nasal cannula
- Oral OTC meds
- Capnography

8. Comments received for exclusion from the Practice Model:

- Endotracheal intubation
- PASG/MAST
- Spinal “Immobilization”
- Cricoid Pressure
- Carotid Massage
- Sub-q Epinephrine
- Demand Valve
- Jaw Thrust for Trauma
- PEEP -Therapeutic

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Appendix I

History of Occupational Regulation in EMS

The development of modern civilian EMS stems largely from lessons learned in providing medical care to soldiers injured in military conflict.

Building on these lessons, a number of rescue squads and ambulance services emerged in the civilian sector, often community based in nature. Hospitals and funeral homes were also common sources of nascent response and transportation systems. While well intentioned, most of these personnel were untrained, poorly equipped, unorganized, and unsophisticated. The systems were unregulated, and no state or national standards existed. By the 1960s, prehospital care in the United States had evolved into a patchwork of well intentioned but uncoordinated efforts. This all changed in the mid-1960s.

In 1960, the President’s Committee for Traffic Safety recognized the need to address “Health, Medical Care and Transportation of the Injured” to reduce the nation’s highway fatalities and injuries.

In 1966, the National Academy of Sciences published a “white paper” report titled Accidental Death and Disability: The Neglected Disease of Modern Society. This report quantified the magnitude of traffic-related death and disability while vividly describing the deficiencies in prehospital care in the United States. The white paper made a number of recommendations regarding ambulance systems, including a call for ambulance standards, State-level policies and regulations, and adopting methodology for providing consistent ambulance services at the local level (National Academy of Sciences National Research Council, 1966).

The Highway Safety Act of 1966 required each State to have a highway safety program that complied with uniform Federal standards, including “emergency services.” This provided the impetus for the National Highway Traffic Safety Administration’s early leadership role in EMS system improvements. Initial NHTSA EMS efforts were focused on improving the education of prehospital personnel such as the writing of the National Standard Curricula (NSC). Funding was also provided to assist States with the development of State EMS Offices. Subsequent NHTSA efforts were oriented toward comprehensive EMS system development and included, for instance, model State EMS legislation (Weingroff and Seabron, circa 2003).

The genesis of State EMS systems can also be traced to the early 1970s, when an unprecedented level of funding from the Federal Government and the Robert Wood Johnson Foundation prompted the establishment of regional EMS systems and demonstration projects throughout the country. The Emergency Medical Services Systems Act of 1973 Pub. L. 93-154 87 Stat. 594-605. 16 November 1973 (enacted by Congress as Title XII of the Public Health Service Act), yielded eight years and over $300 million of investment in EMS systems planning and implementation. The availability of EMS personnel and their training were two components that

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eligible entities were required to focus on, resulting in the first generation of legislation and

Insert brief NHTSA NSC history here, how they and the textbooks were the primary drivers of the
scope of practice, especially once states starting incorporating the NSC into state laws and rules.

One function of State EMS offices was to ensure the competence of the State’s EMS personnel.
States employed a number of strategies to help assure safe and effective EMS practice, including
licensure and certification. Unfortunately, these terms developed multiple connotations in EMS.
In some cases, the meanings differed from other disciplines, causing confusion and inconsistency
at the national level.

Cover the effect of the 1981 Omnibus Reconciliation Act and how it left states with local and
regional EMS systems with very different levels of personnel competency and scopes of practice.

By 1990, EMS in the United States had enjoyed many successes. Not only did EMS systems
grow, but EMS became a career and volunteer activity for hundreds of thousands of talented,
committed, and dedicated individuals. Emergency medical care was available to virtually every
citizen in the country by simply dialing 9-1-1 from any telephone. Despite this progress, EMS
was affected by a number of factors in the broader health care system.

In 1992, the National Association of EMS Physicians (NAEMSP) and the National
Association of State EMS Directors (NASEMSD) saw a need for a long-term strategic
direction for EMS, and the EMS Agenda for the Future was initiated with support from the
National Highway Traffic Safety Administration and the Maternal and Child Health Bureau
(MCHB) of the Health Resources and Services Administration (HRSA). Published in 1996,
the EMS Agenda for the Future proposed a bold vision for greater integration of EMS into the
U.S. health care system.

In 1993, the National Registry of EMTs (NREMT) released the National Emergency
Medical Services Education and Practice Blueprint. The Blueprint defined an EMS
educational and training system that would provide both the flexibility and structure needed
to guide the development of national standard training curricula and guide the issuance of
licensure and certification by the individual States.

In 1998, the Pew Health Professions Commission Taskforce on Health Care Workforce
Regulation published Strengthening Consumer Protection: Priorities for Health Care
Workforce Regulation (Finocchio, Dower et al., 1998). The report recommended that a
national policy advisory board develop standards, including model legislative language, for
uniform scopes of practice authority for the health professions. The report emphasized the
need for States to enact and implement scopes of practice that are nationally uniform and
based on the standards and models developed by the national policy advisory body.
Also in 1998, demonstrating their commitment to the EMS Agenda, NHTSA and HRSA jointly supported a two-year project to develop an integrated system of EMS regulation, education, certification, licensure, and educational program accreditation. The result was the EMS Education Agenda for the Future: A Systems Approach, which recognized the need for a systematic approach to meet the needs of the current EMS system while moving toward the vision proposed in the 1996 EMS Agenda for the Future. The EMS Education Agenda called for a more traditional approach to licensing EMS personnel.

A coordinated national EMS system continues to be in the best interest of States, EMS personnel, and the public. State EMS offices, while working in cooperation with their stakeholders, should implement scope of practice regulations that are as close as possible to those described in the National EMS Scope of Practice Model. This will help with professional recognition of EMS personnel, facilitate reciprocity, decrease confusion, and enable the development of high quality support systems to benefit the entire system.
Appendix II

Legal Differences Between Certification and Licensure

Used with permission: National Registry of Emergency Medical Technicians


Although the general public continues to use the terms interchangeably, there are important functional distinctions between certification and licensure.

Certification

The federal government has defined “certification” as the process by which a non-governmental organization grants recognition to an individual who has met predetermined qualifications specified by that organization.1 Similarly, the National Commission for Certifying Agencies defines certification as “a process, often voluntary, by which individuals who have demonstrated the level of knowledge and skill required in the profession, occupation, role, or skill are identified to the public and other stakeholders.”2

Accordingly, there are three hallmarks of certification (as functionally defined). Certification is:

1. voluntary process;
2. by a private organization;
3. for the purpose of providing the public information on those individuals who have successfully completed the certification process (usually entailing successful completion of educational and testing requirements) and demonstrated their ability to perform their profession competently.

Nearly every profession certifies its members in some way, but a prime example is medicine. Private certifying boards certify physician specialists. Although certification may assist a physician in obtaining hospital privileges, or participating as a preferred provider within a health insurer’s network, it does not affect his legal authority to practice medicine. For instance, a surgeon can practice medicine in any state in which he is licensed regardless of whether or not he is certified by the American Board of Surgery.

Licensure

Licensure, on the other hand, is the state’s grant of legal authority, pursuant to the state’s police powers, to practice a profession within a designated scope of practice. Under the licensure

2 NCCA Standards for the Accreditation of Certification Programs, approved by the member organizations of the National Commission for Certifying Agencies in February, 2002 (effective January, 2003).
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