Revision of the National EMS Education Standards
Second Draft for Public Comment

Summary of Changes
(based on public comments and stakeholder input)

Introduction

The National EMS Education Standards, first published in 2009, are currently being revised with the support of the National Highway Traffic Safety Administration (NHTSA) and the Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau's EMS for Children (EMSC) Program. The project's Development Team met twice in 2019—in Pittsburgh and Washington, DC. In Pittsburgh, the team reviewed the recently released National EMS Scope of Practice Model (SoPM) and stakeholder input to produce a first draft of the revisions. In Washington DC, the team heard presentations concerning the EMS Agenda 2050 project, National Registry of EMT's (NREMT) practice analysis, and actions of the SoPM expert team. The Development Team reviewed adjustments based on comments that were received from stakeholders and the public after the first draft release, and discussed revisions to the existing instructional guidelines.

Context, Considerations & Recommendations for Review

Below is a summary of the additions and changes that were made to the draft of the National EMS Education Standards following the initial public comment period in the fall of 2019. The team is grateful to the numerous members of the public and stakeholders who provided comments and recommendations, each of which was reviewed and carefully considered.

As you review the document, please do so after considering the following four topics:

1.) **First, the primary stimulus for the revision is the 2019 release of an updated National EMS Scope of Practice Model.** Federal supporters assembled experts to evaluate the 2007 SoPM for each of the four national practitioner levels – Emergency Medical Responder (EMR), Emergency Medical Technician (EMT), Advanced EMT (AEMT) and paramedic. These experts evaluated and determined what each level can and should be doing within the scope of their job definition. This draft of the National EMS Education Standards reflects those changes to ensure clinicians receive the education and training they need to perform within their new scopes and serve their patients and communities. Additionally, the recommendations of EMS Agenda 2050 have been evaluated and incorporated. Evidenced-based clinical findings, emerging technology, and known "best practices" were considered as well.

2.) **Second, the 2019 Scope of Practice Model identifies four domains of "Professional Scope of Practice" and provides a framework for the differences between education, certification, licensure, and credentialing** (see definitions below). The EMS Education Standards Revision Team is working within the education domain.

Education Domain	Didactic, psychomotor, and affective learning that an entry-level EMS learner should be taught during an EMS course.
Certification Domain	External evaluation and verification process that is conducted to ensure that a learner has achieved competency to be safe and effective when conducting their duties as an EMS clinician. The certification domain is performed by NREMT in most States.
Licensure Domain	Legal authority, granted by a State to an individual, to perform certain restricted duties. The clinical duties can vary from one State to the next. Often this domain is referred to as "certification," but the SoPM defines certification differently. As defined in the 2019 SoPM, certification and licensure are separate and distinct processes.
Credentialing Domain	Responsibility of the local and/or organizational EMS medical director and the EMS agency. Being that a learner has been educated, certified, and licensed at an entry-level, the duty falls to the local community to ensure that the EMS clinician is able to operate safely by following appropriate clinical guidelines, set forth by the physician EMS medical director.

Because most EMS education programs teach students who will practice in different organizations, communities or even States, a one-size-fits-all education is not possible. No institution is able to teach a learner every possible clinical or operational guideline, nor can an educational entity train an individual on every device used by EMS services across the nation.

Some comments and recommendations received by the team addressed areas that clearly do not apply to the entry-level education of an apprentice EMS clinician. Other suggestions actually fit within the credentialing domain and are not appropriate for national adoption at this time. The team worked hard to stay within the education domain for entry-level EMS clinicians.

3.) **Third, confusion exists about the difference between an education standards document and a curriculum.** The National EMS Education Standards outline the

minimal terminal objectives for entry-level EMS clinicians to achieve within the parameters outlined in the 2019 SoPM. Although educational programs must adhere to the Standards, its format will allow diverse implementation methods to meet local needs and evolving educational practices. The less prescriptive format of the Standards will also allow for ongoing revision of content consistent with scientific evidence, advances in technology, and community standards of care.

The content of educational standards can be general or prescriptive in nature.

Non-Prescriptive Educational Standards

- increased teacher autonomy
- increased instructional flexibility
- increased responsiveness to student learning needs
- increased responsiveness to local needs and situations

Prescriptive Educational Standards

- improved educational consistency
- protection from societal harm that may result from low educational expectations and/or low-quality instruction
- have been labelled as “burdensome checklists” by some educators and can be problematic in medicine due to rapid changes in technology, scientific evidence, and best practices

The EMS Education Standards are intended to be largely non-prescriptive, to allow the benefits listed above and prevent them from becoming quickly out-of-date, as they are anticipated to be in place for five years or longer.

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

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

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

4.) **Fourth, the Development Team discussed and adjusted course length hours.** The public and the stakeholders clearly called for more education regarding behavioral/psychiatric emergencies, EMS wellness, medication errors and safer pharmacological practices, enhancement of pediatric topics, cultural competency, and public health roles of EMS. As a result, the content in these areas was increased. The 2019 SoPM also expanded some skills at each level of clinician. For the most part, the hour requirement was mildly adjusted. The floor for EMR and EMT remain the same. The ceiling was raised for these two levels. AEMT had the most adjustment; both the floor and ceiling were raised by 50 hours.

- EMR – 48-70 hours, no longer 48-60
- EMT – 150-220 hours, no longer 150-190
- AEMT – 200-300 hours, no longer 150-250 (beyond EMT requirements)
- Paramedic – Refer to COAEMSP, no change

In conclusion, the revision team worked primarily from the published 2019 SoPM and within the education domain to create clinical education standards for an EMS apprentice. The team could not devise a prescriptive curriculum (including instructional techniques or evaluation) that defines all clinical content that is needed for every community in the U.S. The team established the educational requirements of an entry-level clinical provider and left flexibility to the local community in regard to unique content and some skills that probably best fit within the credentialing domain after certification and licensure.

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Section	Comments
Course Length	The hour recommendations for the four level of EMS clinicians have been discussed and recommended. EMR – 48-70 hours, no longer 48-60 EMT – 150-220 hours, no longer 150-190 AEMT – 200-300 hours, no longer 150-250 (beyond EMT requirements) Paramedic – Refer to COAEMSP, no change
Entire document Pediatric/Geriatric Content	Individual sections for pediatrics and geriatrics have been removed with educational content addressing these special populations now incorporated longitudinally throughout the education standards. This change is based on recommendations from pediatric-focused stakeholders, scientific data, and consensus among clinical partners. Concepts related to geriatric and pediatric patients deserve equitable attention and should be taught repeatedly throughout every section of a course resulting in an earlier assimilation of the content. Pediatric stakeholders reported that anxiety, unfamiliarity with pediatric patients and equipment, and discomfort on the part of rescuers calls for aggressive remedies. These findings may be associated with low frequency encounters and the high criticality of pediatric encounters. The need for better EMS assessment, diagnosis, treatment, safe medication administration, airway management, and appropriate pain management has been identified. In every aspect of education, trouble shooting and critical thinking are required when clinical situations are confusing or problematic. As students acquire knowledge, skills and abilities, opportunities to compare and contrast pediatric, adult, and geriatric populations will enhance and deepen learning. During each individual section of the education standards, relevant pediatric and geriatric specific content should be discussed in detail as it is not covered in a separate section. Incorporation of this special population information into the general content should improve the comfort level of students by making the care of these patients part of everyday operations. EMS education and care should be family-centered and include knowledge from the cradle to the grave. Pediatric and geriatric topics should no longer be minimized, in comparison to adult topics, or relegated to an isolated component of an EMS course, which can create a perception that the content is less important.

	The reader will find phrases such as, "include age-related variations in pediatric and geriatric patients" and "include psychosocial aspects of age-related assessment and treatment modifications for the major or common diseases and/or emergencies associated with pediatric and geriatric patients." These phrases are intended to remind and direct EMS educators to elevate the importance of geriatric and pediatric education within each section.
Medicine Sections "Other" content to be determined locally - Simple depth, simple breadth – Locally desired/needed content	The education standards revision team recognized and heard numerous comments regarding specific disease content that is of great local need and may not be essential as an itemized list for the entire nation. As a result, the team believed it would be best to include, minimally at the EMT level, a statement that content should be locally determined and developed at the simple depth, simple breadth level. This content should be determined, developed, and implemented through the use of advisory boards, the medical community, or faculty judgement.
Preparatory EMS Systems	Added content related to "systems of care" and "continuum of care" based on numerous recommendations that EMS is part of a healthcare continuum and operates within the confines of many systems that provide care.
Preparatory Workforce Safety and Wellness	Added content related to crew resource management and responder mental health, resilience, and suicide prevention after receiving extensive and overwhelming feedback on the need of education related to clinician mental health wellness.
Preparatory Therapeutic Communications	Added concepts of family-centered care and adjusting communications to the needs of specific patients.
Public Health	Expanded to put more focus on the role of EMS in public health.
Pharmacology Medication Administration	Added concepts of administering medication safely. In particular, added Medication Administration Cross Check procedure. Added concepts for the safe and ethical administration of medications for pain and the overall management of pain with medications.
Pharmacology Chronic or Maintenance Medications	Polypharmacy added.
Medicine Immunology	Systemic inflammatory response syndrome content added.
Medicine Infectious Diseases	Content added related to vaccine-preventable disease. Sepsis and septic shock identified.

Medicine Psychiatric or Behavioral Emergencies	Content related to anxiety; depression; medical fear; patterns of violence, abuse, and neglect; PTSD; substance abuse disorder; and suicide ideation.
Medicine Toxicology	Two toxidromes added: Corrosive and Knockdown. Two other areas of content include serotonin syndrome and malignant hyperthermia.
Medicine Genitourinary/Renal	Sexual assault moved from gynecology since sexual assault can happen to males and females. Added content regarding acid base disturbances and fluids and electrolytes.
Special Patient Populations Pediatrics	Content integrated into the relevant sections of the document. See explanation above.
Special Patient Populations Geriatrics	Content integrated into the relevant sections of the document. See explanation above.
Special Patient Populations Patients with Special Challenges	Provided some examples of technology dependent patients. Added Autism Spectrum Disorder and concepts related to abuse/intimate partner violence.
EMS Operations	The entire section has been adjusted. There is recognition that the depth and breadth of education will vary regionally and locally.
EMS Operations Principles of Safely Operating a Ground Ambulance	Added concepts of safely transporting a pediatric patient.
Clinical Behaviors/Judgement Professionalism	Added the desire for developing life-long learning.
Clinical Behaviors/Judgement Team Dynamics	Included concepts of team leadership for an entry-level clinician to align with accrediting and certifying bodies. Team leadership roles are required by COAEMSP and NREMT.

NEXT STEPS

The Development Team will meet March 26-27, 2020, in Hurst, TX, to review feedback and begin work on the final document. Its members look forward to having stakeholders and any interested parties at this meeting to engage in robust conversation and provide input and recommendations directly to the team. Please direct any questions or concerns to educationstandards@redflashgroup.com.