Student Minimum Competency (SMC) Recommendations

Topics of Conversation

1. Development of the SMC
2. Highlights of the AEMT SMC
3. Goal of the SMC recommendations and framework
4. Common questions
5. Additional resources
6. Takeaways

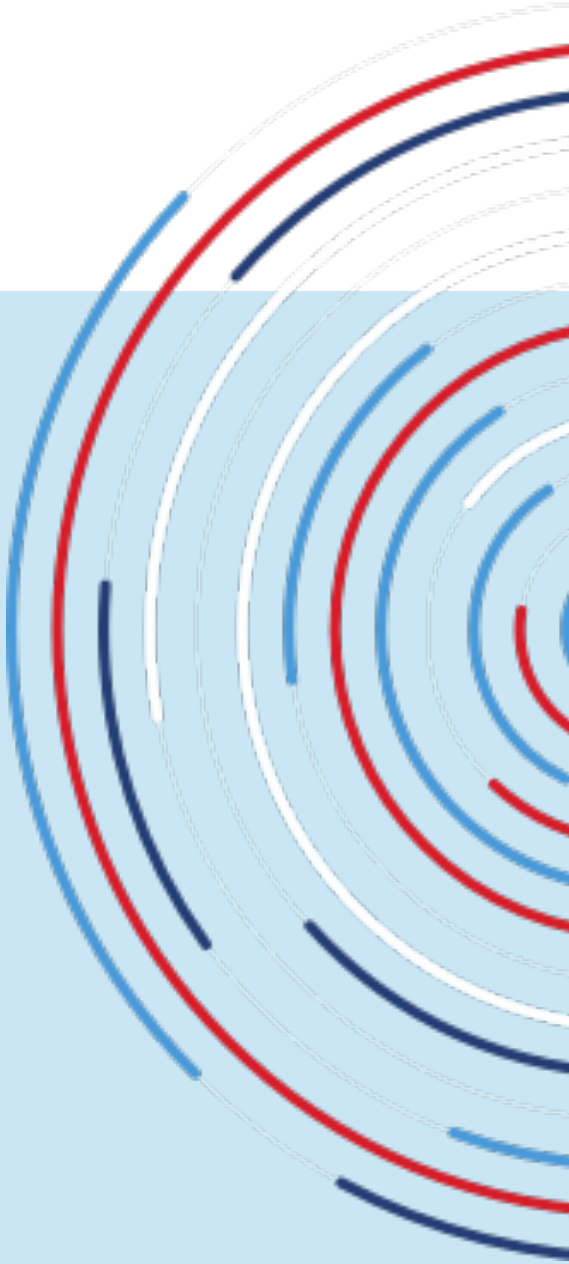
Credible Education
through Accreditation

Relevant Standards

- II.A. Program Goals and Minimum Expectations
- III.A.2. Clinical, Field Experience, and Capstone Field Internship Affiliates
- III.C. Curriculum
- IV.A.1. Student Evaluation – Frequency and Purpose
- IV.A.2. Student Evaluation – Documentation

CoAEMSP INTERPRETATIONS OF THE
CAAHEP 2023 *STANDARDS AND GUIDELINES*
for the Accreditation of Educational Programs in the EMS Professions

SMC Development



EST 1978

CoAEMSP

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

Credible Education
through Accreditation

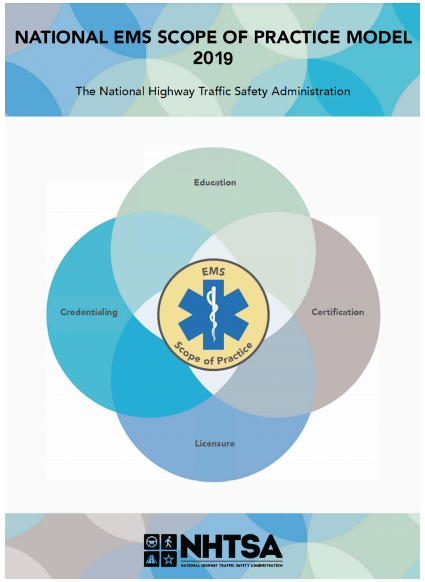
Collaborative Project

CoAEMSP
Committee on Accreditation of Educational Programs
for the Emergency Medical Services Professions

National Registry of
Emergency Medical Technicians®
THE NATION'S EMS CERTIFICATION™

Evidence

- The original SMC (formerly Appendix G) developed in 2016 included a national group of SME and analysis of student records data
- National EMS Scope of Practice – 2019
- National Registry's Practice Analysis – 2019
- National EMS Education Standards and Guidelines



PREHOSPITAL EMERGENCY CARE
2020, AHEAD-OF-PRINT, 1-18
https://doi.org/10.1080/10903127.2020.1856985

Taylor & Francis
Taylor & Francis Group

Open access

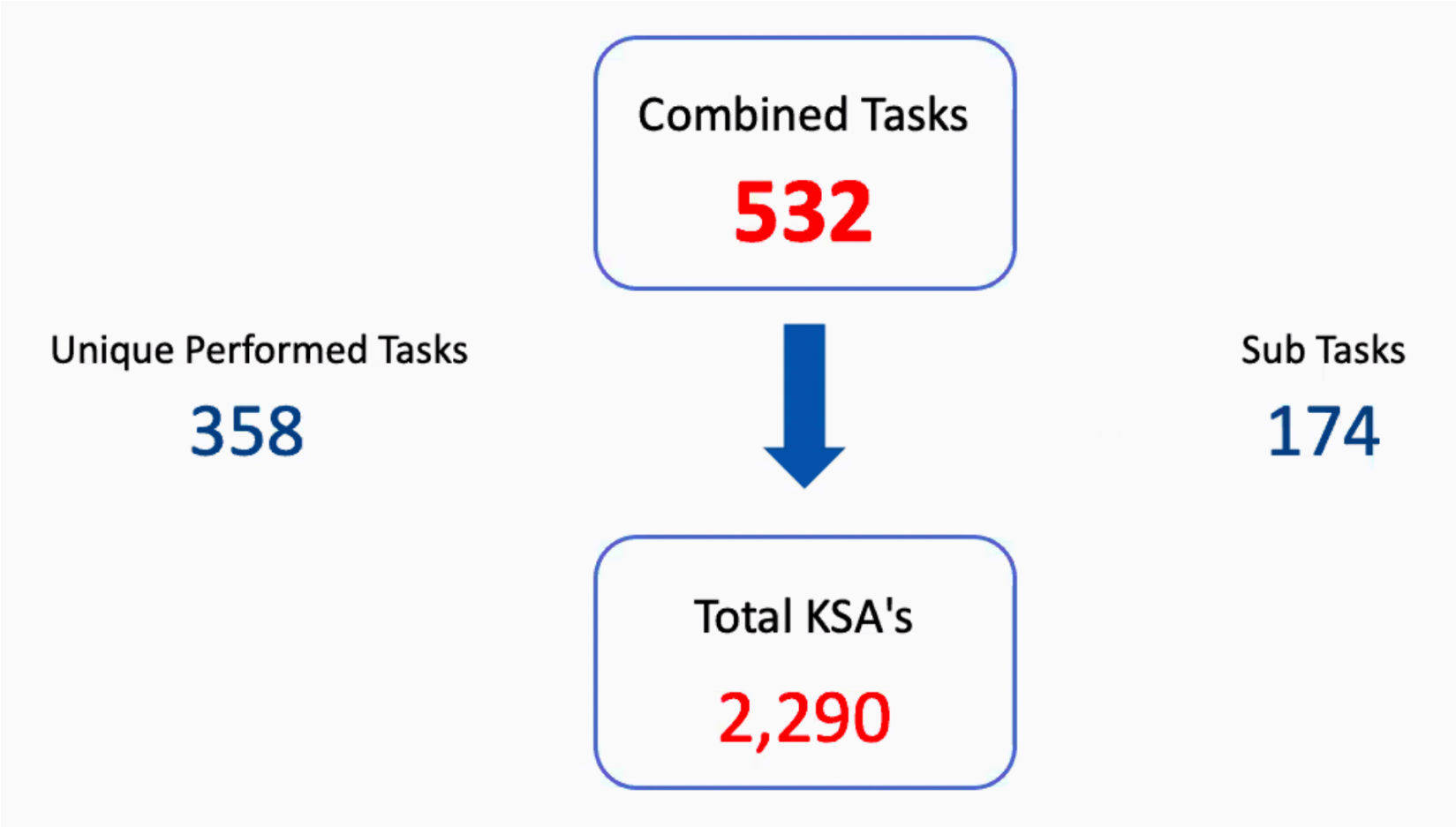
Methods and Implementation of the 2019 EMS Practice Analysis

Ashish R. Panchal, MD, PhD, Madison K. Rivard, MPH, NREMT, Rebecca E. Cash, PhD, MPH, NRP, John P. Corley Jr., BS, NRP, CAPM, Marjorie Jean-Baptiste, MS, Kirsten Chrzan, MPH, NREMT, and Mihaiela R. Gugiu, PhD for the National Registry of Emergency Medical Technicians

Practice Analysis

Overview of a profession or occupation with a goal to provide a comprehensive view of patterns of practice that characterize the profession.

Paramedic Tasks and KSAs



Principles of Design

Simplicity

- Focus on what instead of how
- Easily incorporate EBGs

Modularity

- Easily adapt single items or table
- Framework for other personnel levels

Clarity

- Minimum expectations to provide evidence of competency
- Identify areas of exposure, experience and simulation

Implementation

- Paramedic – effective January 1, 2023 (CoAEMSP)
- AEMT – NASEMSO Model Guidelines adopted June 2023; adopted by CoAEMSP September 2024

Credible Education
through Accreditation

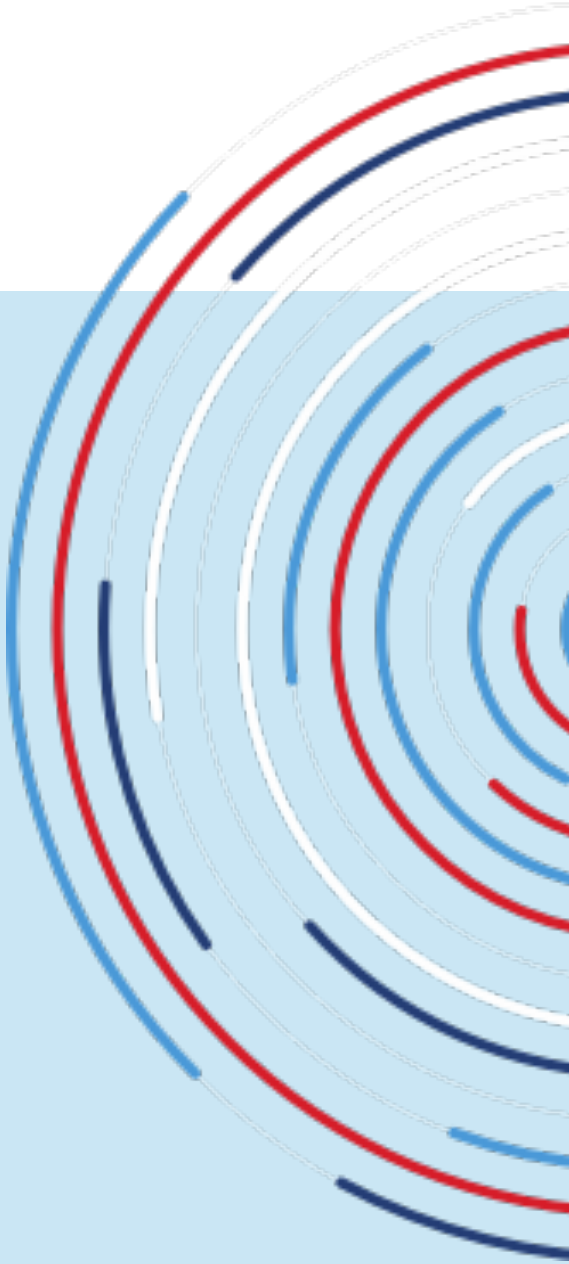
Look beyond the numbers!

CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

Competency

Focus on outcomes and learner achievement, emphasizing mastery of key competencies necessary to enter the profession.

AEMT SMC




EST
1978
CoAEMSP
Committee on Accreditation of Educational Programs
for the Emergency Medical Services Professions

AEMT SMC…

- Similar in design to the paramedic SMC
- Due to curriculum length, there is no differentiation of formative and summative
- Exposures and skills may occur in laboratory, clinical (hospital/clinic), field experience, and capstone field internship
- Utilizes percentages for patient encounters to allow maximum flexibility – every AEMT student to have a minimum of 50 patient encounters
- Minimum category recommendations remain a component of the SMC
- Field experience and capstone field internship required

AEMT SMC – Conditions Table

CoAEMSP Student Minimum Competency by Pathology or Complaint	Live Exposure vs. Simulation	Exposure in Laboratory, Clinical/Hospital, or Field Experience/Capstone Field Internship Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal to no assistance. Percentages are based on the 50 minimum exposures (live and simulated)	Total
Trauma	**Live Exposure**	**10% - 15% (5-8 exposures)**	5 - 8

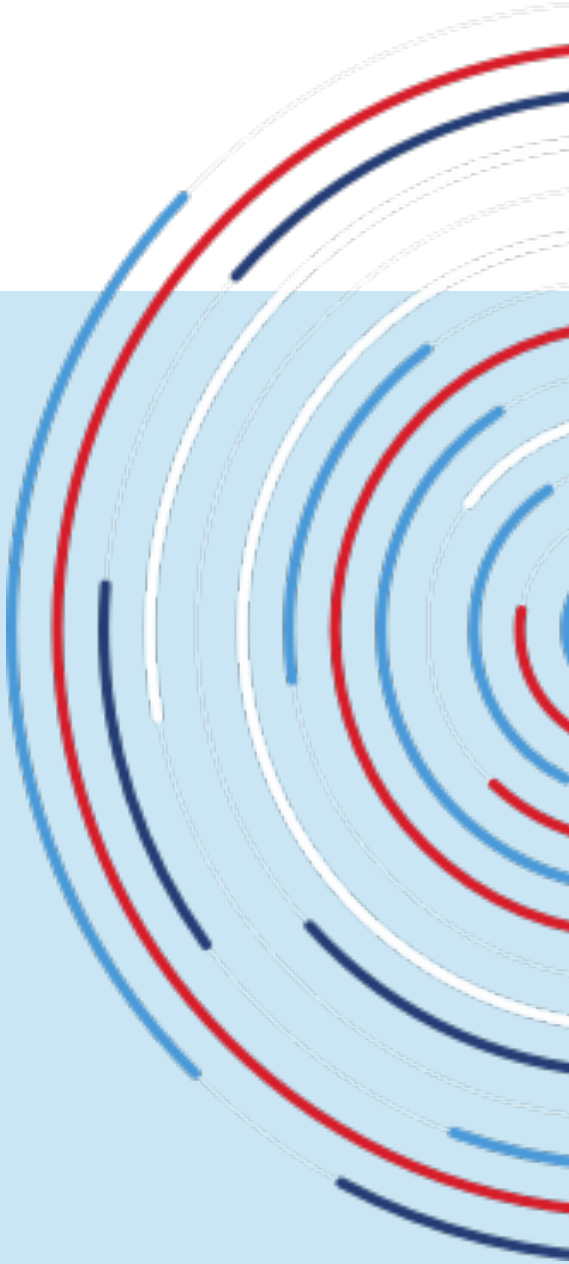
AEMT SMC – Conditions Table

Cardiac arrest	**Simulation permissible, based on competency determined by the Program Director and Medical Director**	**5% - 10% (5-8 exposures)**	5 - 8

AEMT SMC – Field Experience/Capstone Field Internship

AEMT Student Minimum Competency Table 4 Field Experience / Capstone Field Internship	
Field Experience *** Percentages are based on the 50 minimum exposures**	**Capstone Field Internship** *** Percentages are based on the 50 minimum exposures**
Conducts competent assessment and management of prehospital patients with assistance while **TEAM LEADER** *or* **TEAM MEMBER**	Successfully manages the scene, performs patient assessment(s), directs medical care and transport as **TEAM LEADER** with minimal to no assistance
10% - 20% (5-10 exposures)*	**10% - 20% (5-10 exposures)***

Common Questions



EST 1978

CoAEMSP

Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

What is the difference between Column 1 and Column 2?

CoAEMSP Student Minimum Competency by Pathology or Complaint	Simulation	Column 1 Formative Exposure in Clinical or Field Experience Conducts patient assessment (primary and secondary assessment) and performs motor skills if appropriate and available, and assists with development of a management plan on a patient with some assistance for evaluation.	Column 2 Exposure in Clinical or Field Experience/Capstone Field Internship Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal to no assistance	Total Formative & Competency Evaluations by Condition or Complaint
Trauma	**Minimum of one (1) pediatric and one (1) adult trauma simulated scenario must be successfully completed prior to capstone field internship.**	18	**9**	27

Formative and Summative Evaluation

Column 1 – Formative

- Help students refine what is being learned
- Help instructors evaluate student learning progress
- Occur throughout the learning process
- Analogous to quizzes

Can we use simulation? Can we simulate pediatrics? Can we simulate everything?

But...

CoAEMSP Interpretations

”Live patient encounters must occur; however, appropriate simulations can be integrated into the educational process to provide skills acquisition, develop skills proficiency, provide practice opportunities for low volume procedures, and ensure competency prior to exposure to a patient. The program demonstrates that this method of instruction is contributing to the attainment of the program’s goals and outcomes. The SMC identifies where simulation is appropriate.”

Simulation Designated in SMC - example

CoAEMSP Student Minimum Competency by Pathology or Complaint	Simulation	Column 1 Formative Exposure in Clinical or Field Experience Conducts patient assessment (primary and secondary assessment) and performs motor skills if appropriate and available, and assists with development of a management plan on a patient with some assistance for evaluation.	Column 2 Exposure in Clinical or Field Experience/Capstone Field Internship Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal to no assistance	Total Formative & Competency Evaluations by Condition or Complaint
Obstetric delivery with normal newborn care	N/A	2 (simulation permitted)	**2 (simulation permitted)**	6
Complicated obstetric delivery (e.g., breech, prolapsed cord, shoulder dystocia, precipitous delivery, multiple births, meconium staining, premature birth, abnormal presentation, postpartum hemorrhage)	Minimum of two (2) complicated obstetric delivery simulated scenarios must be successfully completed prior to capstone field internship including a prolapsed cord and a breech delivery.	2 (simulation permitted)		
Distressed neonate (birth to 30 days)	Minimum of one (1) distressed neonate following delivery simulated scenario must be successfully completed prior to capstone field internship.	2 (simulation permitted)	**2 (simulation permitted)**	4

CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

SMC Designated Simulation – Conditions Table

- Obstetric delivery with normal newborn care
- Complicated obstetric delivery
- Distressed neonate (birth to 30 days)
- Cardiac arrest

SMC Designated Simulation – Skills Table

- IV infusion meds
- IO access
- PPV with BVM
- Endotracheal intubation
- Endotracheal suction
- FBAO removal (Magill)
- Cricothyrotomy
- Supraglottic airways
- Needle decompression
- Synchronized cardioversion
- Defibrillation
- Transcutaneous pacing
- Chest compressions

Capstone Team Leads

"Capstone field internship team leads cannot be accomplished with simulation."

"...opportunity to assess and manage patients in the prehospital environment..."

Pediatric Patients

- Hospital – pediatric units
- Pediatric clinics – doctor's office
- Urgent care centers
- Elementary schools
- Daycare centers
- Simulation

Simulation Guidelines

CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

CoAEMSP and NREMT
Simulation Guidelines and Recommendations
February 2022

Credible Education through Accreditation

Preamble

Simulation continues to evolve as an important technique that facilitates student learning. The use of simulation in EMS education is appropriate in both the learning process (formative phase) and when evaluating competency. Simulations can be used to evaluate: individual skills, management of various patient conditions and ages, and comprehensive summative assessments. The structure, length, and complexity of simulations vary. Simulations ideally begin early in the curriculum and are incorporated throughout the program as one means to help learner move toward competency. The determination of competency for graduates is not made at a single point in time, at a single event, but rather is an accumulation of a body of evidence when a student consistently performs at an acceptable level. Entry level competency is determined using simulation, clinical, and field assessments.

Programs are responsible to evaluate student progression from novice to competency and have discretion in the development of the curriculum, the sequencing of content, and the use of simulation to augment live patient encounters. This learning plan ideally includes incremental steps from simulation to clinical and field experiences.

Simulation has proven to be an effective education strategy that can replace or enhance other traditional delivery methods, such as lecture, to achieve student learning outcomes. The strength of simulation isn't that it's real. The strength of simulation is that it *isn't* real, and the facilitator controls the variables. Simulation is a technique, not a specific technology. It often involves a scenario followed by a structured debriefing process. Many of the learning objectives are reinforced during debriefing phase.

This document does not define requirements for simulation but is intended to provide guidelines that programs must consider when assessing the appropriate incorporation of simulation as a learning and evaluation tool. The decision on when and how to incorporate simulation in the curriculum should be a deliberate part of the instructional design.

These Guidelines and Recommendations are not intended to be exhaustive or address the entirety of simulation. Programs are encouraged to explore various avenues to acquire increased depth and breadth of information on the subject. Literature relevant to simulation is referenced later in this document. A short glossary of terms is included later, and a complete list of definitions can be found in the Healthcare Simulation Dictionary, Second Edition (2.1)

Simulation Definition

A technique that creates a situation or environment to allow persons to experience a representation of a real event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions.

An educational technique that replaces or amplifies real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner (Gaba, 2004).

Can we count skills performed in the clinical and capstone?

Yes, every iteration of skill performance is to be tracked including task training in the lab; skills performed during simulated patient encounters in the lab; and performed during clinical (hospital/clinic), field experience, and capstone field internship.

IV access, IV bolus medication administration, and IM injection are not to be simulation only. Success rates are to be tracked and reported for IV access, IV bolus medication administration, and endotracheal intubation.

May our program choose to use numbers above or below those recommended by CoAEMSP in the SMC?

Can we replace clinical rotations with simulation?

- There is no requirement for a specific number of clinical hours
- There is no requirement for specific patient care unit rotations
- "…students must have access to adequate numbers of patients, proportionally distributed by age-range, chief complaint, and interventions…" (Standard III.A.2.)

Consider the following

"Interprofessional Education helps a learner realize how EMS fits into the larger 'continuum of care' and plays a role in critical 'systems of care.' Learning how patients move through the health care system, from dispatch to discharge to follow-up care, plays a critical role in patient safety. Interaction with other health care providers and first responders during initial education will mutually enhance an understanding of everyone's role in the system." (p. 21).

Can we use Augmented Reality (AR) and/or Virtual Reality (VR)?

Yes. Leverage AR/VR as you would any other simulation education tools. Emphasis is placed on simulations that achieve educational objectives regardless of the technology being used.

Do we have to test and document BLS skills?

- No.
- EMT certification provides reasonable evidence of competency.
- Programs encouraged but not required to verify competency due to quick degradation or incomplete skills acquisition.

When the patient encounter occurs in the NICU it is reasonable to consider the patient a neonate. Common practice for preterm newborns is to "age adjust."

Can a student return to hospital clinical shifts during or after the capstone field internship?

Yes. This may be necessary to complete a focused remediation (IVs, airway management, etc.) or to complete a patient encounter category not obtained during the capstone field internship.

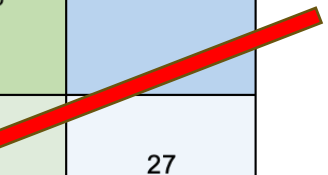
Can AEMT SMC numbers count toward the paramedic SMC?

- Yes, some of it, e.g., IV access.
- Consider the depth and breadth differences between AEMT and paramedic.
- Must account for differences in scope of practice.
- Capstone field internship at paramedic level has a different level of performance expectation.

What is the difference between the overall SMC tables with all the numbers and summary tracking?

Credible Education through Accreditation

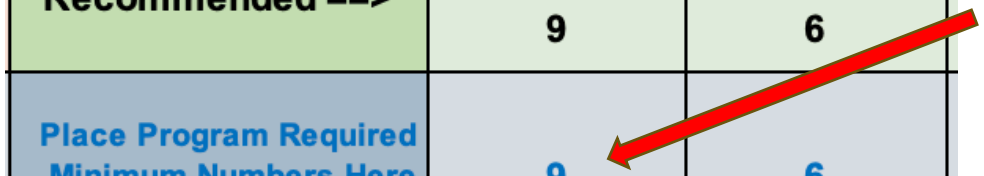
CoAEMSP Student Minimum Competency by Pathology or Complaint	Simulation	Column 1 Formative Exposure in Clinical or Field Experience Conducts patient assessment (primary and secondary assessment) and performs motor skills if appropriate and available, and assists with development of a management plan on a patient with some assistance for evaluation.	Column 2 Exposure in Clinical or Field Experience/Capstone Field Internship Conducts a patient assessment and develops a management plan for evaluation on each patient with minimal to no assistance	Total Formative & Competency Evaluations by Condition or Complaint
Trauma	**Minimum of one (1) pediatric and one (1) adult trauma simulated scenario must be successfully completed prior to capstone field internship.**	18	**9**	27
Psychiatric/ Behavioral	**Minimum of one (1) psychiatric simulated scenario must be successfully completed prior to capstone field internship.**	12	**6**	18



CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions
EST 1978

Summary Tracking

Minimum Number Recommended ==>	Trauma	Psychiatric/ Behavioral
	9	6
Place Program Required Minimum Numbers Here ===>	9	6
Jane Ambo	9	6
John Smith	9	6
Marc Cardio	9	6
Sue Saver	9	6
Bill Turner	9	6



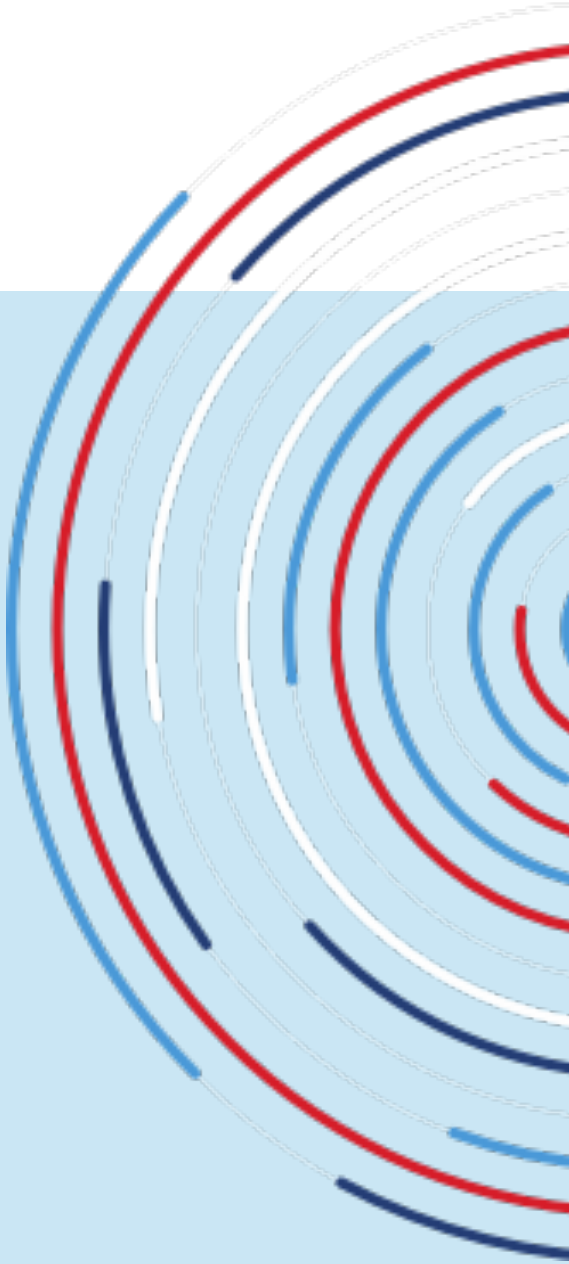
Summary Tracking – Graduates

Credible Education through Accreditation

Capstone Field Internship Team Leads		
(Only Report Success Team Leads)		
Successfully Manages the Scene, Performs Patient Assessment(s), Directs Medical Care and Transport as Team Leader with Minimal to No Assistance	Graduate Completed Student Minimum Competencies (Column is completed as graduate data is entered)	
20		
20		Graduate Name(s)↓
20	Competencies Met	Jane Ambo
20	Competencies Met	John Smith
20	Competencies Met	Marc Cardio
20	Competencies Met	Sue Saver
18	Competencies Not Met	Bill Turner

CoAEMSP

Resources & Takeaways



CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

Credible Education
through Accreditation

Additional Resources

Program Minimum Numbers

	NAME	LAST MODIFIED	DOWNLOAD
PDF	CoAEMSP & NREMT Simulation Guidelines and Recommendations	*MAR-2022*	*DOWNLOAD*
DOC	Student Minimum Competency (SMC) Editable Tables	*NOV-2022*	*DOWNLOAD*
XLS	Student Minimum Competency (SMC) Recommendations AEMT	*DEC-2024*	*DOWNLOAD*
XLS	Student Minimum Competency (SMC) Recommendations Paramedic	*SEP-2024*	*DOWNLOAD*

CoAEMSP
Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions

Credible Education through Accreditation

Top Takeaways

[1]

Provides a useful framework to guide programs based on EBGs

[2]

Identifies areas of exposure, experience, and simulation

[3]

Minimum expectations to provide evidence of entry-level competency