

NAEMT COMMENT TO FIRST DRAFT OF EMS SCOPE OF PRACTICE MODEL REVISION

The National Association of Emergency Medical Technicians (NAEMT) is a 65,000 member organization and is the nation's only national association dedicated to representing the professional interest of all EMS practitioners. NAEMT appreciates the opportunity to provide feedback regarding the National EMS Scope of Practice Model Revision. NAEMT has collected and consolidated input from members, and identified the support, issues and concerns noted below. EMS practice and patient care standards are varied throughout the United States. We understand the complexities associated with attempting to minimize variations and improve both clinical standards and patient outcomes wherever possible. Additional clarification and references are available upon request.

We are grateful for a forum that solicits feedback from end users, providers, administrators, agency leaders, and medical directors. Please reach out to us if additional information is required.

Sincerely,

Dennis Rowe, EMT-P
President, NAEMT

Recommendation: 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 posttreatment 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.

NAEMT Comment

NAEMT recognizes and supports endeavors that can alleviate the current opioid epidemic suffocating our nation. As frontline providers in this battle, we strongly support the administration of opiate antagonist (naloxone) by BLS providers. Appropriate education is required as noted. We support NHTSA's efforts regarding rapid change and implementation to incorporate this therapy.

Recommendation: 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*.

NAEMT Comment

Although therapeutic hypothermia (TH) and targeted temperature management (TTM) have sparked some controversy in the prehospital care environment, we recognize a number of organizations do not currently support its active implementation in EMS systems. Current data demonstrate there may be no benefit to implementing TH in the prehospital setting; however, there is significant benefit associated with in-hospital implementation. Additionally, there is no association of harm with prehospital implementation. We must remember that prehospital implementation often drives change in hospital practice and thus agencies and providers may elect to utilize this modality to help improve systems of care and improve patient outcomes following cardiac arrest. Additionally, we recognize many modalities of providing TH exist and are not explicitly limited to cold fluid administration. We do not feel this therapy should be expressly excluded but recognize there are varied practices and limited clinical knowledge available at this time.

Recommendation: 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.

NAEMT Comment

Although the PICO questions cannot be answered at this time given the paucity of literature on the subject, we should not discount the need for BLS providers to be able to administer some forms of analgesia. Many factors affect the ability of basic providers to provide this therapy. The US military experience provides limited but useful information to the safe and effective administration of analgesia up to and including controlled substances. Accountability and diversion issues will always be raised by some, but we must overcome this obstacle to move forward. Additional emphasis on nonpharmacological methods of pain relief must be addressed in our education programs, as well. Specific information below is provided by our members, including views on this topic from outside the US. An example of this is the administration of nitrous oxide with minimal complication and more widespread use outside of the US.

Pharmacological pain treatment after trauma: Pain treatment after trauma is an important aspect of prehospital trauma care. As a general rule, pharmacological treatment should obtain a pain level defined as mild within 10 minutes, with a patient still able to respond to verbal stimuli and not requiring ventilatory support. To safely use pharmacological pain treatment, the provider must be able to:

1. evaluate the need for analgesia
2. identify the contraindications
3. titrate analgesia
4. master complications that may arise.

Pharmacological agents: Acetaminophen (Paracetamol) & NSAID - limited utility in the prehospital setting due to limited effectiveness but may provide a safe alternative for basic level providers.

Nitrous oxide: Nitrous oxide is used as a 50/50 mixture with oxygen. Some studies documented the efficacy of prehospital nitrous oxide. Although less potent than opioid analgesics, it can be used safely even by basic providers. Its use is widespread in Europe, especially in the UK. There are very few side effects, if any, and since its administration requires some degree of cooperation from the patient, the risk of over-dosage is virtually nonexistent. However, caution is advised in patients with respiratory insufficiency, and SpO₂ should be monitored before, during, and after administration. Still, nitrous oxide treatment should be followed by oxygen administration to prevent the possibility of diffusion hypoxia, especially in patients with sleep apnea syndrome or COPD.

Ref: Nitrous oxide for early analgesia in the emergency setting: a randomized, double-blind multicenter prehospital trial.

Ducassé JLI, Siksik G, Durand-Béchu M, Couarraze S, Vallé B, Lecoules N, Marco P, Lacombe T, Bounes V.

Opioid analgesics: (IV or trans mucosal): Opioid analgesics are powerful analgesics well suited for prehospital pain management, with fentanyl being by far the most popular agent. It is fast acting, can be administered not only intravenously but intranasal or trans mucosal, and allergic reactions to fentanyl are extremely rare. However, the safe administration of fentanyl, intravenously or submucosal, requires skills and knowledge from the provider, and should be guided by strict protocols based on monitoring of pain level such as visual analog scale or the numeric rating scale, as well as sedation level, respiratory rate and SpO₂. Oxygen, bag-mask ventilation device and naloxone should always be ready. Analgesia with intranasal/ trans mucosal fentanyl in children should follow strict protocols.

*Note: These caveats still apply to the trans mucosal/intranasal administration of opioids (fentanyl) as well, although these application routes require less skill than intravenous application. **And as a general rule, extreme caution is advised when combining opiates with benzodiazepines.***

To safely use opiate analgesics, the provider must:

Know the contraindications: shock, respiratory depression, AMS

Be able to evaluate: Pain level using analog or visual rating scale, consciousness, presence of shock or respiratory distress

Be able to monitor: Pain level, level of consciousness, respiratory rate, SpO₂ (and EtCO₂ if available) every 5 minutes.

Be able to recognize and treat: overdose, allergic reaction. They must be competent in oxygen therapy, assisted ventilation and naloxone treatment.

Be able to know and prevent interactions with other pharmacological treatments

Note: Naloxone treatment after overdose of opioid analgesic is not without risk either, since it carries the risk of hyperalgesic rebound with hypertension and tachycardia. Naloxone administration should follow strict protocols and providers should be trained in its use.

Ketamine: Ketamine is a strong analgesic with a relatively safe profile that can be given IV or IM (the intranasal route is possible but limited by its irritating effect on the mucosa). It is as potent as IV morphine, faster acting, and side effects rare when sub-anesthetic doses (0.1mg/Kg-0.5mg/kg) are given. An added benefit is that it can be used together with opioid analgesics. However, once doses of 0.5 to 1 mg/kg are exceeded, anesthetic state is obtained, with side effects that can be very difficult to handle (e.g., laryngospasm). Ketamine works as a dissociative analgesic, which makes communication with the patient more difficult. Therefore, monitoring ketamine analgesia is more complex and requires some training.

Side effects at sub-anesthetic doses are not life threatening but can be distressing for the patient, such as nightmares and hallucinations. Still, they are rather unusual at analgesic doses. Providers should be familiar with the use of benzodiazepines (BZD) to treat these side effects should they occur. Ketamine analgesia is easy to handle for providers with training in IV or IM treatment, and patient monitoring, as long as analgesic doses are not exceeded.

Recommendation: 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.

NAEMT Comment:

We concur that wound packing should be provided by all levels of providers for potentially life-threatening hemorrhage. This skill is critically important to saving lives and improving the resilience of our communities. This should be undertaken immediately.

Additionally, we recognize various commercial devices are available to provide direct junctional hemorrhage control (i.e., "junctional tourniquets") as well as injectable hemostatic agents for use in non-compressible wounds. At this time, data have not shown a definitive survival benefit in the use of these products; however, the EMS provider should remain vigilant to future research which may alter the scope of practice.

Recommendation: 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.

NAEMT Comment

Although data is sparse utilizing these therapeutic modalities at the EMT level, we believe current benefit outweighs risk. The procedure itself is a manual skill, which with appropriate education may be readily implemented by most, if not all, agencies. The patient benefit is recognized by its clinical benefit (effect) and not by who places the device. The challenge is providing appropriate clinical scenarios to enhance the education and successful implementation of CPAP/ BiPAP in the prehospital environment. Medical oversight can facilitate this process. This should be implemented in the current Scope of Practice.

Recommendation: 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.

NAEMT Comment:

EMS agencies are rapidly transforming the services provided to communities and healthcare systems, adding the services envisioned by the 1996 EMS Agenda for the Future for overall community health and patient navigation, not just emergency response and transport. Part of this transformation involves the nomenclature used to describe the evolving services EMS agencies and personnel are providing.

Historically, the professionals delivering traditional EMS have been referred to as ‘ambulance drivers’, EMTs, Advanced EMTs, Paramedics, Firefighter Paramedics, Advanced Paramedics, Critical Care Paramedics, Critical Care Transport Paramedics.

The services that the above referenced personnel deliver have most commonly been referred to as “emergency medical services”, or “EMS”. However, “EMS” has most typically been used to describe the ‘system’ designed to save lives. This system includes bystanders, 9-1-1 call takers and dispatchers, first responders, ambulance personnel, emergency departments, intensive care units, and even post-acute rehabilitation facilities.

We believe that the time has come to identify terms that clarify and distinguish the personnel and the care they provide from the system in which they work. We believe that the care that EMTs and Paramedics provide is most accurately described as ‘paramedicine.’ We believe that the industry discussions to develop the most accurate term to describe the role that EMTs and Paramedics play in the EMS system is important and valuable.

We also understand that any change in nomenclature would require significant regulatory and policy change at the federal and state levels (not to mention a change in our organizational name). The amount of change and effort that is required should not deter this transformation. NAEMT looks forward to industry level dialogue at the national and state levels on this important issue.

What’s in a name? We believe our future.

Recommendation: 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

Transition to nomenclature of spinal motion restriction (SMR). Current national clinical leading organizations (ACEP/NAEMSP/ACS) are very close to a joint position statement regarding SMR. The concentration of this position paper is on the indications for and mechanisms of SMR, not specific devices. Current data suggests harm associated with the devices. As our profession continues this culture change, we recommend continuing to incorporate spinal motion restriction techniques, including the use of long spine boards, but emphasizing the current clinical role and minimizing reliance on a board, to prevent additional spinal cord injury. Spinal immobilization remains valuable in select patients with potential unstable spinal cord injuries.

Blood glucose monitoring, bronchodilators, CPAP, and epinephrine at the EMT level

The EMT provider with appropriate education and medical oversight is capable of providing these therapies and should undergo additional review for inclusion. Each of these therapies has the potential to alter patient-oriented outcomes. These therapies will particularly benefit rural and outlying BLS systems.

Ultrasound at the paramedic level

Diagnostic ultrasound is a skill that has been demonstrated to be performed by paramedic-level providers. Cost and equipment size has limited its use in recent years to primarily a few ground services and slightly higher use in HEMS environments. With improved resolution, decreased size and cost requirements as well as potential for telehealth technology, this modality may have increased utilization. Currently, there are few patient-oriented outcome benefits demonstrated by prehospital ultrasonography. This should be an area of focused research that will provide additional clarity for use in the prehospital environment. There is no question regarding the ability of paramedics to use this skill for a number of indications, but rather the question is: For which of these uses (indications) is there a demonstrated patient benefit at this time?

Need and criteria for licensure level above paramedic

We concur additional information is required for determination of advanced level of licensure. Coordination and collaboration with leading organizations will be required to resolve this issue.

Definitions for critical care

Critical care skills are an important component for most if not all ALS systems of care. There are many variations in definition, standards and practice patterns. A two-week didactic program is most likely inadequate for a practitioner to be considered a critical care paramedic. Additional discussion and defining scope of practice is required to resolve this issue.

Calculating drug doses/use of vials and syringes by EMTs

Although this concept holds great promise, additional research and education must take place to establish the best patient-oriented process. Eliminating on-scene calculations and enhancing availability of drug administration should be a goal; however, we do not currently have adequate information to promote widespread adoption. This issue holds promise for significant clinical outcomes; for example: an EMT arrives on scene of a cardiac arrest and establishes IO access. The drug in the red box (epinephrine) is administered via standing order. This scenario results in a significant decrease in time to medications administration in a time-critical event.

Patient transport at the EMR level

Insufficient detail to provide additional comment at this time.

I/O for adults

Many agencies with a delegated scope of practice currently allow IO access by basic providers. There is minimal risk associated with this practice.

Blood administration by paramedics

Current military practice of blood product administration in the prehospital environment is being translated to civilian practice. Clinically, it is felt that there are a number of indications where early blood product administration is beneficial. Current research will provide additional clarity. It is feasible. Cost vs benefit will help determine the appropriate patient-oriented benefit.

High flow nasal cannula

This appears to be a reasonable practice in the appropriate clinical setting. Minimal to no harm is associated with the practice. Educational component to identify limitations of “normal” nasal cannulas vs “high flow” nasal cannulas must be shared with providers. Many discussions take place regarding apneic oxygenation, etc., but we maintain a common goal of preventing or minimizing hypoxia and hypotension associated with intubation. Maneuvers to assist in preventing these detrimental physiologic events are welcome.

Oral OTC meds

Please see previous response associated with analgesia and trauma.

Capnography

Capnography is a gold standard for airway management and should be incorporated into the scope of practice model. Non-invasive capnography also enhances safety and early detection of patient respiratory decline.

Comments received for exclusion from the *Practice Model*:

Endotracheal intubation

NAEMT Comment:

Endotracheal intubation should remain an important and critical skill associated with the scope of practice model.

PASG/MAST

NAEMT Comment

No need to remain in the current guidance. Although early clinical research shows promise in specific clinical entities, there is no indication for their use at this time.

Spinal “Immobilization”

NAEMT Comment:

Please see additional discussion referring to spinal motion restriction.

Cricoid Pressure

NAEMT Comment:

Controversial skill with much discussion noted in our practice at this time. Additional discussion is warranted.

Carotid Massage

NAEMT Comment

Minimal utilization and effectiveness. Additional education should concentrate on additional Valsalva maneuver, which will increase patient benefit such as leg raising, etc.

Sub-q Epinephrine

NAEMT Comment:

There is no need for sub-q epinephrine administration at this time. Transition to intramuscular injection.

Demand Valve

NAEMT Comment:

Better alternatives are available and more efficient. Demand valves increase the potential for patient injury. Please remove.

Jaw Thrust for Trauma

NAEMT Comment:

Insufficient information to provide input.

PEEP -Therapeutic

NAEMT Comment:

Insufficient information to provide input.