



National Association of State Emergency Medical Services Officials

www.nasemso.org

Founded in 1980, NASEMSO’s membership includes those who license emergency medical services (EMS) personnel and ambulance services nationwide: the directors and other key staff of the 56 state and territorial EMS offices.

NASEMSO’s Vision

A seamless nationwide network of coordinated and accountable state, regional and local EMS and emergency care systems. The systems use public health principles, data, and evidence as a basis for safe and effective care in day-to-day operations as well as during catastrophic events.

NASEMSO’s Mission

NASEMSO supports its members in developing EMS policy and oversight, as well as in providing vision, leadership, and resources in the development and improvement of state, regional and local EMS and emergency care systems.

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NASEMSO's Naloxone Evidence-Based Guideline Development And Dissemination Project

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www.nasemsso.org/Projects/Naloxone/index.asp

The National Association of State EMS Officials (NASEMSO), in collaboration with the National Association of EMS Physicians (NAEMSP) and the American College of Emergency Physicians (ACEP), is leading a project to develop and disseminate an evidence-based guideline for the administration of naloxone for opioid overdoses.

While EMS agencies have been using naloxone to respond to suspected opioid overdoses for decades, perfecting the treatment has never been more critical. In spite of the dramatic increase in the number of opioid overdose events to which EMS personnel now respond, there remain several unanswered questions about the optimal use of naloxone, including but not limited to:

- how to best distinguish an opioid overdose from other non-responsive conditions;
- when to administer a second dose of naloxone; and
- whether administering the antidote more gradually, e.g. intravenously, can improve patient outcome and increase likelihood of referral to long term treatment.

A primary objective of this project is to answer these questions and others through a rigorous, science-based approach and deliver an evidence-based guideline and model EMS treatment protocol for the prehospital management of patients with suspected opioid overdose.

Rapid Change to the National EMS Scope of Practice Model Including a Proposed Process for Implementing the Use of Naloxone at all EMS Provider Levels

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CHANGE NOTICE 1.0 2007 NATIONAL EMS SCOPE OF PRACTICE MODEL

June 5, 2017

RECOMMENDATION: The following changes, which form a part of the National EMS Scope of Practice Model (February 2007) DOT HS 810 657, are recommended by the National Association of State EMS Officials (NASEMSO) for immediate implementation by all EMS agencies.

Page 23. Emergency Medical Responder Psychomotor Skills/Pharmacological Interventions. Add the following: **Administer an opioid antagonist to a patient suspected of opioid overdose.**

Page 30. Pharmacological Intervention Minimum Psychomotor Skill Set/Emergency Medical Responder. Add the following: Technique of Med Administration – **Unit-dose, premeasured, intranasal or autoinjector.**

Page 30. Pharmacological Intervention Minimum Psychomotor Skill Set/Emergency Medical Responder. Administered Meds. Add the following: **Opioid antagonist**

BACKGROUND: The National Association of State EMS Officials (NASEMSO) and a subject matter expert panel that included representatives of several national EMS organizations considered the following questions to facilitate urgent changes to the 2007 National EMS Scope of Practice Model (Model) to add the administration of opioid antagonists to the Emergency Medical Responder and Emergency Medical Technician scopes of practice:

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 practitioners will promote access to quality healthcare or improve patient outcomes? (The base of evidence should include the best available clinical evidence, clinical expertise, and research.)

DISCUSSION: NASEMSO engaged the services of a board certified emergency physician and researcher to lead a systematic review of literature to review the available evidence. An administrative team comprised of the project leadership established the following PICO questions:

(P) For adults with opiate/opioid toxicity in the prehospital environment, (I) does administration of naloxone (intramuscular or intranasal) by ALS (paramedics/EMT-I/AEMT) responders (C) compared to bystanders, law enforcement or BLS (EMT-B/EMT/EMR) (O) improve patient mental and respiratory status?

This PICO question evaluated all data from 1980 to the date of the search.

RESULTS OF SYSTEMATIC REVIEW OF LITERATURE: The search terms were exploded and are as follows: Search 1: “ambulance” OR “emergency medical services” OR “pre-hospital care” OR “mobile health units” OR “paramedic” AND “naloxone” OR “narcan” OR “opiate antagonist”; Search 2: “bystander” OR “law enforcement” OR “rescue personnel” OR “untrained” AND “naloxone” OR “narcan” OR “opiate antagonist”. Additionally, review articles were hand searched for relevant papers. Inclusion criteria used for the evaluation of this search were manuscripts that satisfied the PICO question, were published in English, in peer-reviewed journals, and whose subjects were human (no basic science or animal models). Exclusion criteria included: studies that did not specifically compare ALS (paramedics/EMT-I/AEMT) responders to bystanders, law enforcement or BLS (EMT-B/EMT/EMR), studies not in the prehospital setting, and studies that examined perceptions of responders only (no clinical patient outcomes). Utilizing a comprehensive search strategy, a total of 850 articles were extracted. After independent evaluation by two reviewers, no manuscripts satisfied inclusion. No publications evaluated satisfied the stated PICO question concerning naloxone use between these groups. We suggest that this finding is not unusual or unreasonable due to the fact that the administration of opioid antagonists at the EMR and EMT levels is not currently supported in the (2007) Model, creating a barrier to the use of naloxone by these providers.

DISCUSSION: Naloxone is a medication approved by the Food and Drug Administration (FDA) to reverse overdose by opioids such as heroin, morphine, and oxycodone. It blocks opioid receptor sites, reversing the toxic effects of the overdose. Naloxone is administered when a patient is showing signs of opioid overdose. While we were not able to determine broad patient outcomes related to BLS (EMT and EMR) administration compared to ALS practitioners, NASEMSO also considered expert medical opinion, patient care outcomes identified by consensus panels, available research on the use of naloxone administration by lay bystanders, and the outcomes of state/regional demonstration projects in an attempt to inform a recommendation. We considered the safety of the drug and relative inability to do harm, the potential lifesaving benefits for opiate overdose patients, the availability of unit dose packaging, the relatively clear indications for use of the drug, the response to the rising problem of opiate overdoses nationwide, the ease of training BLS practitioners to use the drug safely and effectively, the minimal background in patient assessment, pharmacology, pathophysiology, airway management, etc. to use this drug. We conclude that the benefits outweigh the risks of incorporating opioid antagonist administration into the scope of practice at the EMR and EMT level for patients with suspected opioid overdose.

EMRs and EMTs shall only undertake the practice if they possess the necessary educational preparation, experience and knowledge to properly administer an opioid antagonist via unit-dose, premeasured, intranasal or autoinjector routes. 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.

NATIONAL SYSTEMATIC LEGAL REVIEW OF STATE POLICIES ON EMERGENCY MEDICAL SERVICES LICENSURE LEVELS' AUTHORITY TO ADMINISTER OPIOID ANTAGONISTS

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ABSTRACT

Objective: Previous research conducted in November 2013 found there were a limited number of states and territories in the United States (US) that authorize emergency medical technicians (EMTs) and emergency medical responders (EMRs) to administer opioid antagonists. Given the continued increase in the number of opioid-related overdoses and deaths, many states have changed their policies to authorize EMTs and EMRs to administer opioid antagonists. The goal of this study is to provide an updated description of policy on EMS licensure levels' authority to administer opioid antagonists for all 50 US states, the District of Columbia (DC), and the Commonwealth of Puerto Rico (PR). **Methods:** State law and scopes of practice were systematically reviewed using a multi-tiered approach to determine each state's legally-defined EMS licensure levels and their authority to administer an opioid antagonist. State law, state EMS websites, and state EMS scope of practice documents were identified and searched using Google Advanced Search with Boolean Search Strings. Initial results of the review were

sent to each state office of EMS for review and comment. **Results:** As of September 1, 2017, 49 states and DC authorize EMTs to administer an opioid antagonist. Among the 40 US jurisdictions (39 states and DC) that define the EMR or a comparable first responder licensure level in state law, 37 states and DC authorize their EMRs to administer an opioid antagonist. Paramedics are authorized to administer opioid antagonists in all 50 states, DC, and PR. All 49 of the US jurisdictions (48 states and DC) that define the advanced emergency medical technician (AEMT) or a comparable intermediate EMS licensure level in state law authorize their AEMTs to administer an opioid antagonist. **Conclusions:** 49 out of 52 US jurisdictions (50 states, DC, and PR) authorize all existing levels of EMS licensure levels to administer an opioid antagonist. Expanding access to this medication can save lives, especially in communities that have limited advanced life support coverage. **Key words:** emergency medical services; narcotic antagonists; naloxone; policy; drug overdose

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INTRODUCTION

In the United States, there were 52,404 drug overdose deaths in 2015, of which 33,091 (63.1%) were known to have involved opioids (1). Opioids cause central nervous system depression which can lead to decreased respiratory drive, respiratory arrest, and eventually cardiac arrest (2). Emergency medical services (EMS) practitioners are uniquely prepared to manage opioid overdose patients as they are trained to rapidly recognize a clinically significant opioid overdose through assessment of the patient's environment, airway, breathing, circulation and mental status. EMS practitioners can prevent or reverse respiratory arrest through airway management, oxygen administration, artificial ventilation, and the administration of opioid antagonists.

While opioid antagonists have been used safely and effectively for decades in the prehospital setting to reverse opioid overdoses, the authorization to administer the drug has traditionally been limited to paramedics and advanced emergency medical technicians (AEMTs). Previous research found that emergency medical technicians (EMTs) were only authorized to administer an opioid antagonist in 13 states as of November 1, 2013 (3). At that time, only 3 states authorized emergency medical responders (EMRs) to administer the opioid overdose reversal medication. In response to the continued opioid crisis,

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Supplemental data for this article can be accessed on the [publisher's website](#).

The findings and conclusions of this publication are those of the investigators and do not necessarily represent official views of the National Highway Traffic Safety Administration, the Association of Schools and Programs of Public Health, or the National Association of State Emergency Medical Services Officials. The findings of this study that relate to state law, code, policies, rules, regulations, scopes of practice, protocols, and standing orders are not intended to provide an individual provider with the legal authority to provide patient care, administer medication, or perform any other function as an emergency medical services practitioner. Emergency medical services practitioners should contact their state authorizing organization to determine their current scope of practice.

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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National Collaborative on BioPreparedness

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www.biospatial.io

NASEMSO has partnered with Biospatial, Inc. and the University of North Carolina at Chapel Hill to enhance the ability of communities to analyze their data and convert it into actionable information.

Biospatial provides unprecedented, timely insight into emerging public health and safety events to support our customers in preparedness and response, healthcare, transportation, and risk management. Biospatial uses Emergency Medical Services (EMS) and other health-related data sources to perform timely, national-scale syndromic detection, monitoring of near real-time trends, and alerting to syndromic anomalies that are critical to population health and safety.

Biospatial develops partnerships with state and local data owners to gain access to health data; in turn Biospatial provides data owners with mission-critical operational and clinical reporting that is relevant to improving operational performance and patient outcomes. Syndromic trends and alerts, summary dashboards, and reports are provided to paying commercial and federal subscribers to support preparedness and response, healthcare, pharmaceutical, automotive, and risk management markets.

Biospatial's automated analytics perform detailed and timely opioid surveillance by identifying opioid and drug overdose events by processing EMS records in near real-time. By applying syndromic and alert-based analytics to EMS records, Biospatial delivers opioid reporting, visualization, and geospatial analysis to its users and stakeholders, including patterns of overdose events and naloxone administration. Biospatial also integrates and links with other data sources, such as ODMap reports, to provide a more complete picture of opioid overdose trends and naloxone administration. Biospatial enables users to visualize geospatial-temporal trends in opioid overdose and naloxone administration and providing actionable insights for planning naloxone supply, distribution, and planning for improved patient care and treatment.

Issues Associated With Model Legislation

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As executive branch officials, NASEMSO members acknowledge and embrace the value of model legislation on any topic which protects the public in a manner that has not already been promulgated. As the agency that licenses paramedics, emergency medical technicians, and other EMS personnel, state EMS offices* already have the authority to set the educational requirements, scope of practice (i.e., the allowable medications, devices, and clinical interventions) and on-going continuing education standards in each state. Key to the success of any model legislation generated at the national level with a new obligation, practice or impact to EMS is early and on-going consultation with NASEMSO.

Emergency medical services systems at the local level vary widely across the country, and as such the complexion of EMS at the state level also varies. The variation is characterized by the types of personnel that respond to 9-1-1 calls (e.g., predominantly paramedic versus predominantly EMT or a level in between), the types of agencies that provide 9-1-1 response and transportation (e.g., fire department, hospital, local government, non-profit associations, etc.), and prevalence of volunteers. A new mandate for additional training, and one that further requires additional equipment or medication to be carried on every EMS vehicle requires significant logistics and expense to impose. Ambulance services and other EMS agencies that pay staff face financial implications, and systems with a high degree of reliance on volunteers have significant challenges placing additional time and task burdens on those personnel, even when the apparent need and value of the training is high.

There is no dedicated funding stream associated with EMS at the federal level that flows to all local EMS agencies. Data published in 2011 indicates that there are nearly 19,000 local EMS agencies in the US that respond to 9-1-1 calls, and over 825,000 personnel licensed at or above the level of emergency medical technician. Model legislation intended to deploy or better enable EMS personnel to respond to public health threats must consider the complexities and challenges that states face and the likelihood that highly prescriptive, short implementation time, cookie-cutter approaches will be unsuccessful, especially in the absence of additional resources.

* In four states, licensure of one or more levels of EMS personnel is actually granted by the State Board of Medicine.

NASEMSO Data Managers Council On NEMSIS Standards Related To Overdoses

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<https://www.nasemsso.org/Councils/DataManagers/>

One role of the NASEMSO Data Managers Council is to formulate recommendations on policies and positions specific to the National EMS Information System (NEMSIS). NEMSIS is the only national EMS database and is a universal standard for how patient care information resulting from an emergency 9-1-1 call for assistance is collected. NEMSIS is a collaborative system to improve patient care through the standardization, aggregation, and utilization of point of care EMS data at a local, state and national level.

The Data Managers recently formed the EMS Data Opioid Workgroup with the intent of collaborating amongst the state's Data Managers and interested stakeholders; share ideas, and develop a NEMSIS-compliant, standardized data subset and tools that could be possibly shared across state borders. Workgroup goals include building partnerships with key stakeholders (including law enforcement and recovery resources), identifying barriers, increase regional and national awareness through monitoring and alerts, as well as standardizing information shared on a national level while abiding by local, state, and national privacy concerns.

NASEMSO's Health & Medical Preparedness Council (HMPC): Membership and Future

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The mission of the Health & Medical Preparedness Council is to provide assistance for and representation of State EMS Officials regarding all hazards related to planning, preparedness, response and recovery, to include homeland and security activities. The Council is committed to assuring that EMS leadership is represented via a dedicated seat for every state and participates in important initiatives, including but not limited to:

- treatment and safe transport of patients experiencing opioid (and other life-threatening) overdoses;
- recognition, treatment and transport of patients with an emerging infectious disease;
- preparing and responding to mass casualty and disaster events; and
- reviewing and providing input into federal plans and documents.

This NASEMSO Council serves as the pipeline between federal and state preparedness and emergency health initiatives to assure that local EMS personnel, ambulance services, and other EMS agencies are well-informed and prepared.