



Emergency Medical Services Agency

Bulletin 2026-05 - June 8, 2026

URGENT

PLEASE POST

PROTOCOL #622: OPIOID WITHDRAWAL & BUPRENORPHINE FORMULARY

Effective June 8, 2026, changes to SLOEMSA Protocol #622 Opioid Withdrawal and the Buprenorphine formulary shall become effective. This update will expand current San Luis Obispo County Paramedic scope to include the use of Buprenorphine as a standing order, removing the need for Base Hospital orders. This change is inline with best practice and current literature from The National Association of EMS Physicians supporting low-barrier protocols for prehospital administration of medications for opioid use disorder (MOUD).

Key changes to the protocol include:

- Initial and secondary Buprenorphine administrations are now ALS standing orders.
- Reassessment period has **increased** to 20 minutes from the original 10 minutes before consideration for a secondary dose.
- Base order "as needed" for paramedic discretion.

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The Role of Emergency Medical Services in Addressing Opioid Use Disorder—A Position Statement and Resource Document of NAEMSP

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The Role of Emergency Medical Services in Addressing Opioid Use Disorder—A Position Statement and Resource Document of NAEMSP

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ABSTRACT

Opioid overdose remains one of the most urgent public health crises in the United States, and for many individuals, the first and sometimes only encounter with health care comes through emergency medical services (EMS). As a result, the role of EMS has evolved far beyond reversing overdoses in the moment. Opioid use disorder (OUD) is a treatable medical disease with effective treatment, and EMS agencies are uniquely positioned to partner with local community resources and hospitals to combine efforts in implementing harm-reduction and treatment strategies. This document provides specific guidance for EMS agencies seeking to build or expand comprehensive programs addressing OUD through a variety of evidence-based approaches.

The National Association of EMS Physicians recommends:

- State and local EMS oversight entities should ensure that EMS clinician scope of practice allows for administration of medications for opioid use disorder (MOUD), specifically buprenorphine.
- EMS Systems should establish low-barrier program and protocols for prehospital administration of medications for opioid use disorder (MOUD), specifically buprenorphine, and integrate the program with available community resources.
- EMS Medical Directors should collaborate with other system leaders to implement validated protocols for the treatment and safe disposition of patients including navigation of patients to alternate destinations or treatment in place.
- EMS Systems should collaborate with other system leaders on harm reduction strategies, including opioid education and naloxone distribution.
- EMS Systems should consider community engagement and input into the design, implementation, and quality improvement efforts for programs to address opioid use disorder, and
- EMS clinicians should receive comprehensive and adaptive education programs that address the pharmacological and biopsychosocial aspects of OUD and reducing stigma.

ARTICLE HISTORY

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Introduction

Patients treated by emergency medical services (EMS) for opioid overdose face a staggering risk of death, with 10–15% dying within the subsequent year, a rate twice that of patients who are post-percutaneous coronary intervention for ST-elevation myocardial infarctions (1,2). Despite this high risk, 14.6–42.1% of patients experiencing overdose are not transported after resuscitation by EMS, citing fears of inadequately managed withdrawal symptoms and stigmatizing treatment (3–5). Additionally, 30–40% of patients who died of a fatal overdose had an encounter with EMS in the preceding year, underscoring missed opportunities for prevention (2,4, 6–8). For many in

this vulnerable population, EMS may be the only encounter with the health care system, presenting a clear opportunity to identify risk and intervene. Furthermore, patients who might otherwise decline transport to an emergency department (ED) will often accept other forms of harm reduction and addiction treatment offered by EMS clinicians (9–11).

In 2020, the National Association of Emergency Medical Services Physicians (NAEMSP) published a position statement entitled, “The Role of Emergency Medical Services in the Opioid Epidemic,” which was developed through the NAEMSP Public Health Committee (12). This document provided several actionable steps to develop naloxone programs and partner with community-based organizations to provide continued

care. There were also general recommendations around data collection, mobile integrated health, medications for opioid use disorder (MOUD), funding, and education.

However, since then, the overdose crisis has continued and become increasingly complex. Patients seeking addiction treatment often face barriers to timely and accessible care, positioning EMS as a key resource for intervention and treatment with MOUD and harm reduction services, such as safe syringe exchange programs and naloxone distribution. Additionally, there has been a plethora of more recent research published in this domain. Yet, formal recommendations are still lacking to guide agencies as they develop a comprehensive approach to addressing the opioid epidemic through program development/refinement, protocols, education, and quality improvement (QI).

Therefore, NAEMSP developed this updated position statement to offer specific guidance for EMS agencies to establish or develop comprehensive services addressing opioid use disorder (OUD) through MOUD, naloxone distribution, community engagement, and education. This position statement provides actionable recommendations within four domains: MOUD, harm reduction services, community engagement, and EMS clinician OUD education.

Although several potential strategies are addressed below, local resources and needs should determine which of the following elements are incorporated and in what order (13).

Methods

Four main topic areas pertaining to the role of emergency services in the opioid epidemic were identified through group consensus from coauthors using the PICO framework (Table 1). A structured rapid review was conducted to synthesize the literature in the four main topic areas (15). The search strategy was guided by a prior scoping review and

literature search on a similar topic (14). Additional specific search terms were added for each topic. All topic areas had common inclusion and exclusion criteria as well as specific content criteria depending on the question (Table 2). Ovid MEDLINE (ALL, 1946–June 2, 2025) and Elsevier Embase.com (including Embase, Embase Classic, MEDLINE, 1947–present) were searched for articles published at any date from 2010 to June 3, 2025. The four separate searches were performed on June 3, 2025, by a medical librarian (AM). Screening and full-text reviews each required a single reviewer and were completed using Covidence systematic review software (Veritas Health Innovation, Melbourne, Australia). Authors then met to discuss findings. The full search strategy and PRISMA flow diagrams can be accessed in the Supplemental Tables/Figures. Data from full texts were extracted using a structured data abstraction tool within Covidence. These studies were used to guide the recommendations but given limited and relatively nascent literature base on some of these topics, recommendations were also guided by consensus and alternative literature sources.

Results

For topic 1, a total of 673 records were identified, 125 for Topic 2, 81 for Topic 3, and 165 for Topic 4. After removal of duplicates, screening, and full-text review, a total of 29, 15, 6, and 9 studies for Topics 1–4, respectively, were included (Supplemental Figures 1–4).

Discussion

Designing and Implementing an EMS Buprenorphine Administration Protocol and Program

EMS Systems should establish low-barrier program and protocols for prehospital administration of medications for

Table 1. Primary topics.

Review question(s)	PICO ^a	Search terms
Topic 1: What is the evidence behind medication for opioid use disorder in EMS ^b agencies?	<ul style="list-style-type: none"> • Population of interest: patients with OUD^c • Interventions: MOUD^d administered by EMS • Comparator: n/a • Outcomes: n/a 	Used same search terms as with the prior consensus document (14)
Topic 2: What is the evidence behind harm reduction services provided by EMS agencies?	<ul style="list-style-type: none"> • Population of interest: patients with opioid use disorder • Interventions: harm reduction services • Comparator: n/a • Outcomes: n/a 	<ul style="list-style-type: none"> • Harm reduction/minimization • Opioid-related disorders/prevention and control • Needle-exchange programs • Fentanyl/xylazine test strips • Sterile syringes • Peer support specialist • Post-overdose response team (PORT) • Safe syringe exchange program (SSEP) • Syringe services program (SSP)
Topic 3: What strategies can EMS agencies use to increase community engagement to address opioid use disorder?	<ul style="list-style-type: none"> • Population of interest: EMS agencies • Interventions: community-based engagement • Comparator: n/a • Outcomes: n/a 	<ul style="list-style-type: none"> • Community engagement • Community networks • Community health services • Needle exchange programs • Stigma
Topic 4: How should EMS agencies approach education of EMS clinicians around specific topics related to patients with opioid use disorder?	<ul style="list-style-type: none"> • Population of interest: EMS clinicians • Interventions: training and/or education on opioid use disorder • Comparator: n/a • Outcomes: n/a 	<ul style="list-style-type: none"> • Inservice training • Education • Training • Continuing education

^aPopulation/intervention/comparison/outcome.

^bEmergency medical services.

^cOpioid use disorder.

^dMedications for opioid use disorder.

Table 2. Inclusion and exclusion criteria for topics.

Topic	Inclusion criteria	Exclusion criteria
All topics	Population	Prehospital and/or out-of-hospital settings, including Mobile Integrated Health/Community Paramedic programs
	Study design	RCTs, ^c cohort studies, cross-sectional, before and after studies, retrospective and prospective studies, case series, conference abstracts, quality improvement studies, program descriptions, qualitative studies, systematic and scoping reviews
	Timeline	2010 to present
	Geography	Any country
Topic 1	Content	Administration of buprenorphine or suboxone
Topic 2	Content	Intervention or exposure of naloxone distribution, syringe service program, Fentanyl test strips, Xylazine test strips, or safe consumption sites
		<ul style="list-style-type: none"> • Alternate destinations • Partnerships with public health agencies • Addiction services in the community • Community-based engagement activities
Topic 3	Content	<ul style="list-style-type: none"> • Education and training initiatives for OUD • Simulation-based training • Stigma education and training • MOUD training and education • Training specific to Community paramedics, MIH,^e general prehospital crews
Topic 4	Content	ED-based stigma, MOUD, OUD training

^aEmergency department.

^bEmergency medical services.

^cRandomized controlled trials.

^dMedications for opioid use disorder.

^eMobile integrated health.

opioid use disorder (MOUD), specifically buprenorphine, and integrate the program with available community resources.

State and local EMS oversight entities should ensure that EMS clinician scope of practice allows for administration of MOUD, specifically buprenorphine.

EMS Medical Directors should collaborate with other system leaders to implement validated protocols for the treatment and safe disposition of patients including navigation of patients to alternate destinations or treatment in place.

Rationale for Implementing a Buprenorphine Protocol

Buprenorphine treatment for OUD is a cornerstone of harm reduction, withdrawal management, treatment, and recovery from OUD. The rationale to include this intervention in the prehospital setting is increasingly clear. Buprenorphine, an FDA-approved medication to treat OUD, has been demonstrated to decrease all-cause and opioid-related mortality by up to 50% (16–18). Initiating buprenorphine in the ED setting is recommended and has been shown to increase odds of treatment engagement and reduce odds of re-overdose within 30 days (19). Since 2021, numerous studies within diverse prehospital settings have also demonstrated that EMS-initiated buprenorphine is not only safe and effective in reducing acute withdrawal symptoms, it is also associated with high levels of engagement in with follow-up for OUD, including retention in MOUD treatment programs at 30 days ranging from 36 to 68% (19). Emergency medical services clinicians see buprenorphine as a “destigmatizing” tool that relieves the symptoms of withdrawal, demonstrates

compassion, builds trust between patients and first responders, potentially reduces clinician burnout, links vulnerable patients to ongoing treatment, prevents future overdoses, decreases overall call volume, and saves lives (20).

Optimal Protocol for Buprenorphine Administration

A range of different induction strategies have been attempted in both the prehospital and ED settings. Most prehospital systems employ high-dose buprenorphine administration as an initial dosing strategy. High-dose buprenorphine is more commonly used in the acute care setting as it resolves withdrawal symptoms faster and may benefit patients with anticipated delays in accessing outpatient buprenorphine (21). The Clinical Opioid Withdrawal Scale (COWS) is used to assess eligibility for high dose buprenorphine induction, and most recommend treatment starting with a COWS of 8 or higher (14).

This high-dose protocol and COWS score cutoff is well described in many systems including the California Bridge program and includes the following features (22):

- A COWS of 8 or higher, with at least 2 objective findings not attributable to another condition (e.g. pupillary dilation, piloerection, vomiting, etc.) (23–25). Having clearly documented objective findings of withdrawal is associated with lower rates of precipitated withdrawal (26).
- 16 mg of sublingual (SL) buprenorphine as an initial dose (23,24, 27,28).

- Repeat dosing (usually 8 mg SL) can be performed after 10–30 min (23,24, 29,30).
- 24 mg SL as a max dose in the prehospital setting (23,24, 27,29,31).

The primary exclusion criteria for the administration of high dose buprenorphine is any recent methadone use. Some programs define this as last methadone use within the prior 7 to 10 days, but others have demonstrated safety of buprenorphine use following a last dose of methadone at 48 or 72 h prior to administration (23,24, 27,28,32). This exclusion criterion is due to the higher risks of precipitated withdrawal induced by buprenorphine due to methadone's long duration of action and bioavailability. The only other exclusion criteria for initiating prehospital buprenorphine involves significant altered mental status and any limitations to decision capacity, as patients must engage in shared decision making with EMS clinicians before initiating buprenorphine (27).

Patient Disposition after Buprenorphine Treatment

Following administration of buprenorphine and management of other symptoms of withdrawal, national protocols and evidence vary for types of disposition, including transport to an ED, transport to an alternate destination, or treating in place. Most reviewed protocols recommend transport to a receiving ED. However, different pilot programs reported different rates of transport *versus* refusal. For example, a study from a suburban community in California demonstrated a 97% rate of transport to an ED following buprenorphine administration (25), whereas a study from an urban community in New Jersey demonstrated an 80% transport rate of patients following buprenorphine (30). Patients transported to "Opioid Receiving Centers" (ORCs), which have been loosely defined as EDs equipped with resources to facilitate navigation to substance use treatment programs (such as dedicated Substance Use Navigators and ED protocols for buprenorphine administration) have been demonstrated to be associated with higher rates of maintenance in treatment at 30 days (41 *vs.* 25% retention rate for patients not transported to an ORC) (33).

An EMS agency in Vancouver partnered with a local health authority to provide an alternate destination for patients with a presumed fentanyl overdose using EMS protocols to determine eligibility (34). Overdose treatment and on-site harm reduction/addictions care/community resources were provided. It was found to be safe and effective, with only 1.1% of patients secondarily transferred to a local ED, 16.0% started on MOUD, and 81.7% given take-home naloxone (34). These protocols allowed EMS clinicians to differentiate between low-risk opioid overdoses, which were appropriate for alternate destinations, as opposed to high-risk overdose which was more appropriately treated in an ED (34). The NAEMSP similarly recommends the development of protocols to distinguish which patients may be safely diverted to alternate destinations.

Other programs are using treat in place approaches where initial buprenorphine dosing is provided followed by daily

bridge dosing until the patient is able to complete a referral to outpatient substance use treatment programs (23,24, 27,35). Several EMS systems, in particular, those with community paramedic programs, have noted success with patient follow-up and engagement with this pathway (24). In addition to paramedic assessment and treatment, community-based substance use navigators or public health workers can be essential in supporting follow-up care plans.

Prevention and Mitigation of Buprenorphine-Associated Precipitated Withdrawal

A range of rates of precipitated withdrawal have been reported in the literature from individual prehospital settings of high-dose buprenorphine protocols, but is generally low, ranging from 0 to 3% (19,36). However, due to the dramatic nature of the symptoms and discomfort experienced by patients in precipitated withdrawal, any system should seek to minimize the chance of this occurring, as well as have strategies in place to address it. It is important to discuss the risks of precipitated withdrawal with patients starting MOUD in the ED or prehospital setting (19).

There are multiple treatment options to address precipitated withdrawal symptoms, including anti-emetics, benzodiazepines, antipsychotics, alpha agonists, ketamine, and more buprenorphine (14,19). Some of these treatments can be started in the prehospital setting, but many are available only in the ED (32,37). All patients experiencing precipitated withdrawal should be transferred to the hospital for further treatment.

Change Management and Addressing EMS Clinician Concerns and System Challenges during Implementation

Challenges to buprenorphine administration programs include state regulatory requirements, inconsistent training of staff and turnover, willingness of EMS clinicians to administer buprenorphine in the field, and liability concerns.

Some clinicians worry that buprenorphine does not fit within the rapid service delivery model of EMS, perhaps further overburdening an already overwhelmed system (20,38). In a qualitative study in Seattle King County, a majority of EMS clinicians expressed concern regarding the increased workload that buprenorphine administration would have on the 9-1-1 system (38). In qualitative studies, concerns about efficiency of treatment and impacts on EMS clinical workload were raised (20,38). Thus, they suggest that specialized teams (e.g., mobile integrated health) dedicated to treating this patient population might be the best way to offset these demands (20). In one study, clinicians indicated that they were more amenable to buprenorphine administration if the protocol entailed giving the medication during transport to the hospital *versus* remaining on scene trying to convince a patient to "change their ways" and accept MOUD (38).

Another potential concern with buprenorphine administration by EMS agencies is clinician liability. Specifically, EMS clinicians may be hesitant to leave a patient on scene who has received buprenorphine, a controlled substance due to potential negative outcomes (38). Due to the

pharmacokinetics and its ceiling effect, buprenorphine can be a safe option for harm reduction and overdose prevention. Some studies suggest that buprenorphine's high affinity may prevent fentanyl overdose if someone were to use opioids again after treatment (39,40). Additionally, initial data suggest that both ED and EMS initiated buprenorphine programs have high rates of follow-up with MOUD treatment programs at 7 and 10 days (30,33, 35,38). Prehospital agencies should educate clinicians on the risks of buprenorphine and establish specific written protocols to enhance comfort. Attempts to streamline MOUD administration and the pathway to OUD resources, such as standardized initiation protocols and flexible dosing protocols for home initiation, is recommended since the risk of mortality is highest within 30 days of a non-fatal opioid overdose (19).

EMS Clinician Training for Buprenorphine Programs

Initiation of a buprenorphine program within an EMS system is relatively straightforward. One setting showed that 35-min of training was adequate to demonstrate EMS clinician competence with buprenorphine protocols, although most described training as lasting 2h (27,28). Buprenorphine as a controlled substance may typically be initiated by any EMS clinician who is a paramedic or higher, though policies vary between states. Most systems use paramedics, however, at least one state is using Emergency Medical Technicians (EMTs) (14,23, 28,41,42).

However, some systems have focused their programs on Community Paramedic initiated buprenorphine, often times as part of a post overdose response team (PORT) (19,24,27). Post-overdose response teams (PORTs) can also include law enforcement officers, recovery coaches, and harm reduction peers (27). Such teams often identify patients by searching for everyone who received recent prehospital care for a suspected opioid overdose. Ideally, the follow-up visit will occur as soon as possible after the suspected overdose event (24,27).

Harm Reduction Services Provided by EMS Agencies

EMS Systems should collaborate with other system leaders on harm reduction strategies, including opioid education and naloxone distribution.

Not all prehospital patients with OUD are interested in sobriety or MOUD, and even those who are occasionally relapse. Thus, harm reduction should also be incorporated into any prehospital OUD program. Traditionally, this takes the form of leave-behind naloxone programs to reduce the risk of fatal overdose. However, people who use drugs face other risks that can be addressed. Patients with substance use disorders have significantly higher rates of certain communicable diseases including HIV and Hepatitis C than the general population (43). Yet, prehospital-specific evidence is lacking in regard to harm reduction interventions other than naloxone distribution. Although there is significant data from community-based settings and emergency departments, they were not included in this review.

Opioid Education and Naloxone Distribution (OEND)

The distribution of naloxone kits is cost-effective and significantly reduces opioid-related fatalities (43–47). It does not lead to increased substance use or a failure to engage “first responses” such as calling an ambulance or attempting rescue breathing (48). Prehospital clinicians and medical directors generally believe that prehospital naloxone distribution is worthwhile, feasible, and can easily be integrated into current workflows, although many had concerns about cost and the time needed for training (20,49).

Prehospital OEND programs may be an especially important way to expand naloxone access in rural communities, where 9-1-1 response times may be substantial, there are few substance-use harm reduction and treatment centers/resources, and opioid-related overdose deaths occur at a higher rate (49). It has been shown that EMS clinicians have a high fidelity to following existing leave behind naloxone distribution protocols, suggesting that EMS is a suitable setting for naloxone distribution (50). Prehospital clinicians should provide naloxone to at-risk patients and their friends/family members, as well as to other at-risk community members (51).

Other Services

Syringe distribution and syringe exchange, which are key components of infectious disease prevention and reducing the safety burden of improperly disposed of needles, increase when EMS clinicians perform these duties (51). Along with these services, safe injection education should also be provided (52). If permitted by state statute, test strip (fentanyl, xylazine, etc.) distribution could also be a component of harm reduction outreach offered by EMS (53). Overdose Prevention Centers are another feasible way to reduce overdose deaths and present another opportunity for EMS to integrate into public health efforts (54).

Although rapid human immunodeficiency virus (HIV) and hepatitis C virus (HCV) screening is cost-effective and has documented efficacy in EDs and community clinics, there is little evidence on its use within prehospital OUD programs (17). According to a study of prehospital first responders, mobile integrated health staff, and EMS leaders in King County, Washington, facilitators of prehospital HIV/HCV screening programs include a context of cultural sensitivity and trauma-informed care, co-location with additional services, sustainable funding, clear protocols for positive results, and leadership support (17,52,55). However, many of the EMS clinicians interviewed worried that HIV and HCV testing during a 9-1-1 response is not feasible, is inconsistent with their rapid service delivery model of care and may feel compulsory/coercive if completed immediately after an overdose event (17).

EMS Strategies to Increase Community Engagement to Address Opioid Use Disorder

EMS Systems should consider community engagement and input into the design, implementation, and quality improvement efforts for programs to address opioid use disorder.

State-Wide Overdose Systems of Care

State-wide Overdose Systems of Care, similar to those in existence for trauma, stroke, and other medical issues, allows a multi-level approach to lower risk of overdose and death, assist patients with entry into treatment, maintain provider engagement, and initiate changes with measurable improvement. Potential partnerships include emergency departments, inpatient care, primary care, treatment centers, EMS, peer counselors, law enforcement, social workers, public health, and mental health providers (53,56).

Warm Handoffs

One ED-based study showed that only patients who received a warm-handoff to continued outpatient addiction treatment continued on buprenorphine initiated in the ED (57). Because most of the hesitancy to initiate MOUD in the ED and prehospital settings is due to lack of follow-up, multidisciplinary support services, addiction clinics, and consistent primary care should be mobilized to increase community engagement and clinician comfortability (19).

Post-Overdose Response Teams (PORTs)

Although EMS frequently respond to patients with opioid use disorder, they often lack the infrastructure and capacity to provide OUD-specific resources and support (11). Post-overdose response teams (PORTs) that pair EMS clinicians with other first responders or substance use treatment professionals can help to bridge this gap, providing outreach, harm reduction, treatment, and linkage to other resources (11,52). Such programs vary considerably in team composition, funding, outreach contacts, and services delivered or referred during outreach (58,59).

These teams can successfully provide follow-up care after the initial 9-1-1 response and link individuals to substance use treatment, as evidenced by the decreased opioid fatality rates found in municipalities with these teams when compared to those without such programs (52,56, 59,60). As social service provision and referral to treatment are associated with lower opioid overdose rates, social services related to housing, employment, education, and transportation should be incorporated into post-overdose outreach programming (56,61).

Barriers to PORTs include stigma, challenges associated with data sharing, financing, sustainability, replicability, outreach when individuals are not home or if illegal activity is occurring, and limited police buy-in (52,56). Some find that PORTs are resource intensive, often requiring multiple attempts at outreach and several modalities of interaction to facilitate treatment linkage (52,56,59).

Prehospital clinicians can also reach more patients by following up with them in the days following a suspected opioid overdose that resulted in an emergency services activation, offering support and linking them to additional care (51). Ideally, visits would occur within 72-h of an overdose, if not immediately (11). There is a narrow window to engage patients with substance use disorder. Daily maintenance dosing often ranges from 16 to 24mg, titrating to find the lowest possible dose to prevent cravings or withdrawal

(14). This approach addresses several barriers that these patients experience, including lack of a working phone number or reluctance to provide contact information to health care workers (51). Transportation is another barrier, especially in rural areas, and should also be addressed either by direct transport or coordination (11,53).

Teams are more successful when their members are non-judgmental, have the ability to address withdrawal symptoms, and provide non-stigmatizing treatment (11). Safe Stations and PORT teams should offer buprenorphine and harm reduction interventions *via* a non-judgmental, trauma-informed approach (11,52). Effective teams are multi-disciplinary and collaborate/foster relationships with many sectors: law enforcement, treatment partners, community agencies, the courts, other first responders, and the larger community (11,56).

A large proportion of the team's actions are focused on overcoming the many barriers to entering treatment (52). Team members should be knowledgeable about available addiction services in the community, as that will allow them to expedite screening, eligibility, and admission processes for patients, as well as perform a warm handoff (11,56). Barriers to treatment are often overlooked among youth populations. In addition to relative social and cognitive immaturity, youth often experience barriers such as lack of insurance, reliable transportation, and parental notification concerns. In San Bernardino, a multi-disciplinary team cared for youths aged 12–24 with OUD in detention centers, collaborating with physicians to begin or continue MOUD, showing promising initial results (60% of patients referred for evaluation with successfully enrolled in addiction treatment) (62). Barriers for providers include concern of their office being overwhelmed with patients with addiction, resistance from practice partners, and lack of adequate reimbursement (63). Barriers for patients include time and frequency of appointments, burdensome urine drug screens, difficulty scheduling care around work/childcare, and difficulty finding sober socialization (63).

Safe Stations

Safe Stations are designated fire stations that offer 24/7 linkage to addiction treatment (52). They perform functions similar to PORTs, but with a different recruitment strategy and in a fixed location. The benefits of Safe Stations include immediacy of help offered and low threshold access. In one study, participants repeatedly notes that firefighters were non-judgmental (64). Considerations for establishing a Safe Station should include 24/7 staffing and potential increased call volumes limiting provision of services (64).

EMS Clinician Education around Topics Related to Patients with Opioid Use Disorder

EMS clinicians should receive comprehensive and adaptive education programs that address the pharmacological and biopsychosocial aspects of OUD and reducing stigma.

As many initial EMS clinician training programs do not include much information around addiction treatment,

additional training should be developed and provided to EMS clinicians (51). Different levels of training can be developed for all line-personnel *versus* team members who provide an additional scope through overdose response teams. Team members who are part of such teams can help provide some of the training to the line-personnel (51).

Addiction medicine physicians and EMS medical directors should both be involved in developing the training curriculum for EMS clinicians who will be providing expanded addiction medicine care (51). Experiential learning has been a beneficial format to addiction medicine education. Therefore, a dynamic experiential-based training curricula could be created by using the disease model of addiction as an educational framework (65,66). Incorporating the disease model of addiction into trainings is associated with increased support for harm reduction strategies and various OUD treatment options (66). Delivery methods may include formal presentations, video demonstrations, practical exercises, Q&A, and repeated assessment with feedback. Among educational delivery methods, learners often rate simulation as the most useful method of teaching (51,65). To contextualize the information learned in didactics, small group discussions and clinical observation (in which EMS clinicians work alongside caregivers in existing addiction medicine treatment programs) can be offered concurrently (51).

Having a friend or family member who has struggled with addiction improves first responders' viewpoints regarding patients with OUD. Therefore, the educational training could include having individuals in recovery or individuals currently using substances to come speak on their experiences living with addiction (67). Inviting individuals experiencing addiction to participate in MOUD trainings will also facilitate improved community relations and trust between first responders and a marginalized population (67).

The initial training course should be followed with annual continuing medical education refresher sessions (38,68). Indiana University created the first statewide First Responders and Opioids Extension Program for Community Healthcare Outcomes (ECHO). This program entailed 9, 60-min Zoom sessions tailored toward training EMS agencies about best practices in opioid overdose treatment and MOUD management. Each session began with approximately a 30-min didactic presentation followed by a patient case discussion led by OUD experts in emergency medicine, public health, clinical pharmacy, law enforcement, and recovery. Data from the course evaluation was extremely positive (68).

Didactic training can include stigma reduction, harm reduction such as HCV/HIV testing and naloxone distribution/administration, ACLS, MOUD overview, buprenorphine initiation, trauma informed care, and stages of change (11,27,38,51, 65,66, 68–70).

Stigma is not uncommon among EMS clinicians, and it can impede care by serving as a barrier to lifesaving treatments (67,69–71). Some believe naloxone use will paradoxically increase rates of opioid addiction and overdose. It is important EMS agencies debunk this fear as naloxone has been shown to decrease, not increase, rates of opioid overdose (38,66,69). Despite EMTs agreeing with the lifesaving potential for naloxone during an overdose, only a minority

agree that everyone at risk of witnessing an opioid overdose should have access to naloxone (68,69). A significant culture shift would be required to change the perception of individuals with OUD and clinicians' willingness to administer MOUD. One study found 44.9% of EMS clinicians would not want their agency to participate in a buprenorphine administration program (38). First responders' viewpoints on patients who experience OUD greatly influences whether those patients receive appropriate medical treatment (67). The more overdose calls received, the less likely first responders are to view patients with OUD as deserving of medical treatment (67). Stigma regarding perceived dangerousness of individuals with OUD should be addressed as these negative views perpetuate the opioid crisis as first responders may be more hesitant to assist with overdose prevention efforts (66). Harm reduction trainings should specifically be emphasized in rural towns as EMS responders in rural areas often hold more negative view of naloxone (66). EMS agencies should incorporate violence mitigation training programs (72).

Strong Basic Life Support training is of utmost importance in managing opioid overdose. All EMS agencies should train their clinicians in excellent bag-valve mask ventilation (72). Due to increasing rates of cross-contamination, clinicians should be trained to avoid anchor bias and consider if additional toxidromes are present and may warrant additional intervention (72).

Naloxone education should include recognition of overdose, assembly of medication administration system, and the administration of the medication (65). In the First Responders and Opioids ECHO Program, many registrants expressed desire to help someone who overdoses. However, there was less confidence regarding how to treat an opioid overdose and understanding the benefits of using MOUD (68). Only 59.7% of registrants understood the effect of naloxone is shorter than the effect of heroin and methadone (68). Only 54.5% of registrants understood that naloxone could provoke withdrawal symptoms (68). Specific naloxone administration protocols should be developed to mitigate severe precipitated opioid withdrawal experiences by survivors while still achieving life-saving measures in the setting of suspected opioid overdose (69). Specific training on proper naloxone dosing is important to avoid both medical side effects, such as acute pulmonary edema (72). Naloxone trainings are associated with increased competence, confidence, and readiness to intervene in overdose situations (65). Naloxone provider trainings increase optimism and should be advertised to the community at-large (69).

Opioid use disorder should be recognized as a chronic disease process that requires a biopsychosocial approach to treatment. Trauma-informed care education should be a mandatory component of the training curriculum (72). Education should prioritize approaches to shared decision-making conversations with patients (19). It is important that EMS agencies educate clinicians on addiction disorders and how to implement patient-centered communication (19). Clinicians should be educated on how to reduce stigmatizing terminology and replace it with person-first language (72). Operational needs should also be taught,

including the agency's unique protocol and how to refer to a peer recover specialist/other community partners (51). Clinicians should not only be educated on the evidence-based community resources for OUD but should also know the process of connecting the patient to those resources (72).

Prehospital agencies should partner with MOUD programs to develop evidence-based resources for OUD intervention and rehabilitation and collaborate closely with stakeholders to create relationships between emergency rescue care and long-term OUD treatment centers (72).

Mitigating Burnout and Compassion Fatigue

The occupational challenges of frequently responding to unpredictable, distressing, and chaotic situations place EMS clinicians at risk for emotional exhaustion and erosion of compassion (67). Prehospital agencies should incorporate wellness talks, strategies to avoid burnout/compassion fatigue, and stress regulation management into their curriculum to avoid development of stigmatizing beliefs (66,67). Given the emotional toll that EMS clinicians can experience when witnessing frequent opioid overdoses, it is paramount to implement resiliency training (19,51, 65–69,72).

Prehospital clinicians commonly describe feelings of frustration with recurrence of opioid overdoses and the absence of sustained improvement in patient outcomes, even as they express profound moral commitment to saving lives and alleviating suffering (73). When EMS systems equip clinicians with evidence-based tools, such as MOUD, harm-reduction initiatives, and direct referral pathways, they may transform that frustration into purpose. By allowing clinicians to see tangible progress, such programs may reduce feelings of helplessness and compassion fatigue.

Limitations

Our findings are limited by the paucity of data regarding EMS approaches to treatment of opioid use disorder, a rapidly evolving field, and poor evidence base. Previous literature has found significant heterogeneity in approaches to EMS-Buprenorphine programs, with primarily single site studies (14). This highlights a need for additional research in this area, particularly with high quality studies. By excluding emergency department-based studies, we also limited opportunities to translate higher quality evidence to the EMS setting. Additionally, due to time constraints, we used a rapid qualitative review and limited screening and full-text reviews to a single reviewer. This may have introduced a degree of bias through missing studies.

Conclusions

Prehospital systems have several opportunities to impact the treatment of patients with OUD in their communities. Prehospital-initiated treatment with buprenorphine is a critical approach to low-barrier care, which can provide unique opportunities for individuals with OUD to engage in

treatment. This intervention has been linked with moderate to high treatment retention rates and very low rates of precipitated withdrawal. Harm reduction approaches in the pre-hospital setting are primarily limited to OENDs, which can be an effective and impactful approach to increase access to naloxone in vulnerable communities. Community engagement is key to successful EMS OUD treatment and harm reduction programs. This includes establishing key partnerships through local EDs, harm reduction agencies and public health entities to approach collaborative and tailored approaches to addressing the needs of this population within each community. Finally, EMS clinician education should be frequently integrated into continuing education to address stigma, as well as pharmacological and biopsychosocial aspects of OUD and related treatments.

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External Review

This document was created solely by NAEMSP and was not subject to review by external parties.

Updating Procedure

Pursuant to NAEMSP Standards & Clinical Practices Committee procedures and practices, this position statement and resource document will be reviewed and updated five years after its publication. Applicable NAEMSP review and revision practices that are current as of the time of the review will be followed. At a minimum the review process should include a search and synthesis of any new and relevant evidence that is published since the printing of this document.

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