

Maine Operational Physician Response (MOPR) Pilot Project

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Executive Summary

To be written...

Background

Since well before the inception of the first formal EMS system, physicians have been involved in the provision of patient care in the out-of-hospital environment. Prior to the 1970's, almost all prehospital emergency care was performed by physicians (including Dr. Pritham's well known response to the 1919 Onawa, Me train wreck in the Millinocket region¹ to Dr. Radis's house calls by boat²). Initially, all EMS training and oversight for Advanced Life Support credentialing was performed by physicians who would perform field response and train EMS clinicians "at the bedside" (see, for example, reports of Dr. Eugene Nagle in Miami being anesthetized by his anesthesia colleagues to allow paramedics to learn how to intubate). As the practice of EMS became more established, physicians reduced and, for the most part, eliminated their in-the-field care responsibilities. Nonetheless, numerous examples of "operational physicians" occur across the country, including large urban service-level medical directors and organized hospital-level physicians responding to out-of-hospital events. Even in Maine, where this practice is less common, there are several physicians, physician assistants, and nurse practitioners who are currently practicing to supplement and enhance the responses of specific EMS agencies.

In 2015, Maine EMS and the MDPB expressed interest in identifying physicians who were interested in practicing in the prehospital environment. This was in part driven by witnessing the development of New Hampshire's first hospital-deployed physician response unit as well as recognizing similar practices across the country. These practices are expected to increase given the advent of physician board certification in EMS and the clear acknowledgement that EMS is a unique practice of medicine and is, by definition, exclusive to the out-of-hospital environment.

Maine EMS does not have a process to endorse the activities of these clinicians, an official pathway to encourage physicians to become clinically active in the out-of-hospital environment, or a mechanism to take full advantage of their entire scope of practice during an EMS call. This pilot project proposal is intended to outline a pilot pathway for recognition of physicians who elect to obtain competencies beyond the traditional in-hospital or in-clinic scope of practice by meeting Maine EMS-outlined criteria for practicing in the out-of-hospital environment as an "operational physician." It is important to note that all physicians in Maine are licensed by either the Maine Board of Licensure in Medicine (BOLIM) or the Maine Board of Osteopathic Licensure (BOL). **The Maine Operational Physician Response (MOPR) Pilot Project will not provide physicians an additional license or certification to practice medicine in any capacity nor will it preclude any physician from practicing medicine within the State of Maine based on the privileges conferred under their licensure as a physician. All care provided by the physician remains authorized and overseen by the physician's respective licensing agency.** This pilot program is a pathway to explore the impact and benefits of increased physician involvement within the out-of-hospital clinical environment. This pilot program will facilitate visibility, data collection, and quality assurance/improvement efforts when EMS Operational Physicians are involved, thereby providing the foundational information necessary to evaluate the long-term workability and benefits of incorporating the emergency medical treatment modalities offered by EMS Operational Physicians to the EMS system.

¹ Wilson, DC. [The Big Little World of Doc Pritham](#)

² Radis C. [Go by boat: Stories of a Maine island doctor](#)

Overview

The Maine Bureau of Emergency Medical Services, in collaboration with the Medical Direction and Practices Board (MDPB), is seeking authorization from the Maine Board of Emergency Medical Services (hereafter Board) to initiate a pilot program to evaluate the viability and appropriateness of incorporating physician-level emergency medical treatment techniques.

The pilot program request would empower the creation of a non-transporting service level within the State of Maine that would be *licensed* at the Emergency Medical Responder (EMR) level and *permitted* at the paramedic level but would be authorized to provide clinical interventions up to the scope of practice defined by the physician's licensure by BOLIM or BOL, respectively. As part of this pilot program proposal, the Board would limit agency affiliations with this agency to only persons who have met defined minimum qualifications and initial competencies as defined later in this proposal. Each operational physician agency shall be overseen by an identified agency-level Medical Director who will function as the service director on the application. The application for licensure as a MOPR non-transporting agency will require the same components of licensure as all other agencies, including but not limited to, a designated training and education point of contact, infection control officer, quality assurance and improvement plan, a service-level medical director, and an appropriate program for the control and accountability of medications to be used during the provision of care. In order to meet minimal equipment requirements of the paramedic permitted level, MOPR agencies can outline a plan reliant on participating EMS agencies licensed or permitted to the paramedic scope of practice. For example, a MOPR physician may initiate care without all the required paramedic equipment, as long as a plan is in place to make that equipment available through a partner EMS Agency responding to the call.

The MOPR Pilot Project will be granted access to the Maine EMS Fire and Incident Reporting System (MEFIRS) where all associated physicians will be expected to complete electronic patient care reports for every patient encounter. Physicians will be expected to adhere to the same rules and standards defined by Maine EMS regarding documentation as other agencies. In situations where physicians associated with the MOPR Pilot Project initiate care, treatment, or believe that the patient's condition warrants clinical decision-making or treatments that exceed that of the transporting EMS clinicians' capacity and/or scope of practice, they shall attend the patient in transport to the receiving healthcare facility. The MOPR Pilot Project will be held to the same quality assurance and improvement standards as all EMS agencies and all operational physicians participating with the agency will be equally held to quality assurance and improvement standards comparable to other Maine EMS-licensed EMS clinicians.

To maintain patient safety and protect the public's interests, the MOPR Pilot Project will ensure that all physicians who are affiliated with the service are prepared to practice this unique form of clinical medicine in the dynamic out-of-hospital environment. The MOPR Pilot Project must provide or coordinate with their partner agencies to provide a complete orientation to the safety concerns, unique medical equipment, EMS formulary, and practice(s) common in the agency(s) with which the MOPR Pilot Project partners. MOPR Pilot Project shall work collaboratively with EMS agency leadership to ensure they have been completely oriented to the distinct aspects of practice within the community. The MOPR Pilot Project will be responsible for developing training materials and outreach efforts to ensure that EMS clinicians working with partner EMS agencies are aware of the pilot project, its capacity, and the physicians that are associated with the program. MOPR Pilot Project shall ensure that all physicians associated with the entity are oriented to scene management and safety concerns, as these are very

specialized skills of EMS clinicians that are taught during initial training and honed through years of practice but are very different than clinic or hospital practices.

Goals, Objectives, and Metrics

When developing a pilot project, Maine EMS and the MDPB believe that it is imperative to establish clear, measurable goals and objectives to understand the outcomes of this pilot project and its potential benefits to the EMS system. The following goals and objectives are the first iteration that the MOPR Pilot Project wishes to explore. The Pilot Project intends on partnering with Maine EMS to aggregate data from MEFIRS documentation to help support long-term sustainability of MOPR programming and subsequently amend the project to meet the needs of the community.

Goal 1. Increase involvement of physicians with highly specific, EMS-related training within the out-of-hospital clinical environment.

Objective 1.1. After six months of the MOPR Pilot Project being active, there will be at least five licensed (BOLIM/BOL) physicians associated with the Pilot Project non-transporting agencies.

Measure 1.1.1. Number of affiliated physicians (Data Source: Maine EMS eLicensing Platform)

Objective 1.2. After six months of the MOPR Pilot Project being active, there will be at least fifty EMS activations with documentation that reflects the presence and care of a physician affiliated with the MOPR Pilot Program.

Measure 1.2.1. Number of EMS incidents that include activation and documentation from a physician affiliated with the MOPR Pilot Program (Data Source: MEFIRS)

Goal 2. Increase involvement of physicians with highly specific, EMS-related training into the quality assurance and improvement processes ongoing throughout the State of Maine.

Objective 2.1. After six months of the MOPR Pilot Project being active, each physician associated with the Pilot Project will have provided oversight, education or become involved with a quality improvement process for at least one call.

Measure 2.1.1. Number of educational interactions reported by the MOPR agency. (Data Source: MEFIRS MOPR Run Report, preferably a check box that can be queried.)

Goal 3. Increase collaboration, knowledge sharing and learning opportunities for EMS clinicians throughout the State of Maine with integration of clinical practice that exceeds the current scope of practice of licensed EMS clinicians within the out-of-hospital clinical environment.

Objective 3.1. After six months of the MOPR Pilot Project being active, each physician associated with the Pilot Project will have provided oversight, education or become involved with a quality improvement process for at least one call.

Measure 3.1.1. Number of educational interactions reported by the MOPR agency. (Data Source: MEFIRS MOPR Run Report, preferably a check box that can be queried.)

Measure 3.1.2.

Goal 4. Increase access to the highest-level of clinical care within communities that may otherwise not readily have access to the level of care prior to transportation to an emergency department staffed with trained emergency medicine professionals.

Objective 4.1. After six months of the MOPR Pilot Project being active, there will be at least two EMS activations with documentation that reflects the presence of a MOPR physician on scene augmenting the otherwise present level of care (i.e., Treat and release outside of on-scene provider scope of practice, providing care at paramedic-level when EMT was only other EMS provider present, providing physician-level care, etc.).

Measure 4.1.1. Number of EMS incidents that included interventions and documentation from a physician affiliated with the MOPR Pilot Program above the initial responding provider's level of licensure (Data Source: MEFIRS)

Goal 5. Increase data collection and support for the creation of a long-term solution for an operational physician program.

Objective 5.1. Greater than 90% compliance with documentation standards for EMS incidents involving MOPR physicians.

Measure 5.1.1. Number of EMS incidents that include activation and documentation from a physician affiliated with the MOPR Pilot Program (Data Source: MEFIRS)

Safety Provisions

To protect the safety of all of those involved in this pilot project as well as the public, this proposal has enumerated some key safety provisions that will be instituted as part of the MOPR Pilot Project.

Operational physicians affiliated with the MOPR Pilot Project shall complete the following prior to responding to any activations with the service:

Operations-Related Training

- Ambulance Vehicle Operator Course, or Maine EMS-approved equivalent;
- National Traffic Incident Management (TIM) Responder Training (Available online through U.S. Federal Highway Administration);
- Radio operations and training; and
- Scene management and safety training.
- ICS 100, 200 and 700

Clinical Care-Related Training

- MEFIRS documentation training;
- Onboarding to medical equipment deployed with partner EMS agencies;
- Training regarding the current Maine EMS formulary; and
- Orientation to the current Maine EMS Scope of Practice.

Qualifications for Affiliation with the MOPR Pilot Project

The MOPR Pilot Project shall set standards for those physicians seeking to affiliate with the non-transporting service. These standards are intended to ensure that the physicians doing so are meeting minimum qualifications for practice as an operational physician within the out-of-hospital environment. While this in no way infringes on a physicians' capacity to practice medicine, those who are not affiliated with this agency or with another EMS agency as a licensed EMS clinician, will not be permitted to document within MEFIRS.

To be affiliated with the MOPR Pilot Project, operational physicians must meet the following qualifications:

- Must be licensed as a physician (MD/DO) within the State of Maine by the BOLIM or BOL without any practice restrictions; AND
- Must possess an active and unencumbered Drug Enforcement Agency (DEA) license; AND
- Must meet *at least one* of the following qualifications:
 - Board certified in EMS (American Board of Emergency Medicine) and currently credentialed to practice emergency medicine with a Maine-licensed hospital's emergency department.
 - Board certified or eligible in Emergency Medicine (American Board of Emergency Medicine, American Osteopathic Board of Emergency Medicine, American Board of Physician Specialties) and currently credentialed to practice emergency medicine with a Maine-licensed hospital's emergency department.
 - Active EMS fellow who has completed their initial residency.
 - Active emergency medicine resident who has completed their second year of residency and holds an unrestricted medical license.
 - Board certified in a specialty of medicine (such as General Surgery, Internal Medicine, Family Medicine, Pediatrics, Anesthesiology, etc.) *AND* hold a current and valid:
 - Advanced Cardiovascular Life Support Certification (or approved equivalent)
 - Advanced Trauma Life Support Certification (or approved equivalent)
 - Pediatric Advanced Life Support certification (or approved equivalent)
 - Neonatal Resuscitation Certification (or approved equivalent)

Competency Assessment for Practice

The MOPR Pilot Project will practice at or above the Maine EMS-defined Scope of Practice for Paramedics. Many skills routinely performed by paramedics are not necessarily performed as often by physicians within the health system. Therefore, the Pilot Project shall require skills competency or attestation in the form of credentialing paperwork for the following skills prior to allowing a physician to practice as part of the Pilot Project.

- Establish intravenous access;
- Establish interosseous access;
- Administer intravenous/interosseous bolus of medication;
- Administer intravenous/interosseous infusion of medication;
- Perform positive-pressure ventilations with bag-valve mask;
- Perform endotracheal intubation;

- Perform surgical cricothyrotomy;
- Insertion of supraglottic airway;
- Perform needle decompression of the chest;
- Apply a tourniquet;
- Perform spinal motion restriction;
- Apply a cervical collar;
- Lift and transfer a patient to the stretcher;
- Splint a suspected long bone injury;
- Splint a suspected joint injury;
- Dress and bandage a soft tissue injury;
- Apply occlusive dressing to an open wound of the thorax; and
- Perform uncomplicated vaginal delivery.

In situations where these skills, in part or whole, are not included in the credentialing privileges conferred by their Maine-licensed hospital, the Agency Medical Director may conduct, or delegate, skills evaluation to appropriately qualified individuals (e.g., Maine EMS Paramedic Instructor/Coordinator, State EMS Medical Director, Associate State EMS Medical Director, Regional EMS Medical Director, etc.) if attestation alone is deemed insufficient by the agency Medical Director.

Outcomes, Research, and Development Plan

The goal of the Maine Operational Physicians Response Pilot Project is to augment and support the existing Maine EMS System in providing excellent patient care. In an effort to measure the MOPR Pilot Project's success in meeting this goal and to ensure the project is providing continued community value, the project aims to measure the following:

Outcome 1. Number of MOPR responses.

Rationale 1.1. Measures the overall number of events in which the MOPR program responds to and each agencies activity.

Measure/Data Source 1.1. Number of unique MEFIRS calls listing responding MOPR Physicians (Current MEFIRS system)

Outcome 2. Number of MOPR responses in which the responding physician was the solitary ALS provider on scene.

Rationale 2.1. Measures the project's ability to support ALS response within the program's catchment area.

Measure/Data Source 2.1. Number of EMS incidents that in which the highest licensed EMS clinician on scene is at the EMT scope of practice. (Current MEFIRS system)

Outcome 3. Number of MOPR patient interactions that exceed the EMS clinician scope of practice. These may include advanced decision making (including alternate destination determination), or skills, therapies, and interventions beyond the EMS scope of practice (for example, field amputation, blood or blood product transfusion, medications, etc.)

Rationale 3.1. Measures the MOPR program's ability to augment the EMS systems current response and provide advanced, physician-level skills, therapies, formulary, and decision making to the pre-hospital realm.

Measure/Data Source 3.1. Number of EMS encounters involving a MOPR Program that end in an alternate destination (including, non-transfer, alternate transfer or physician treat and release). (MEFIRS MOPR Run Report. Destination Tab)

Measure/Data Source 3.2. Number of MOPR program encounters with any procedure listed beyond that of the EMS scope of practice. (MEFIRS MOPR Run Report, procedures tab [this tab should list expected procedures performed by the pilot project, but also list an "other" tab that allows for novel therapies and requires the MOPR physician to list the additional therapy in an alternate location in the run report]).

List of potential procedures in this drop-down menu include RSI, finger/tube thoracostomy, pericardiocentesis, blood or blood product transfusion, central line placement, suturing/wound care, epistaxis management, reduction of dislocations, alignment of fractures, procedural sedation, peripheral nerve block, incision and drainage, obstetrics related procedures (including perimortem c-section), field amputation, ultrasound, and point of care tests.

Measure/Data Source 3.3. Number of MOPR program encounters with any medication listed beyond the current Maine EMS formulary. (MEFIRS MOPR Run Report, medications tab [this tab should list expected procedures performed by the pilot project, but also list an "other" tab that allows for novel therapies and requires the MOPR physician to list the additional medications in an alternate location in the run report]).

Potential formulary could include: TNK, Esmolol, Nicardipine, Rocuronium, Succinylcholine, Etomidate, Neosynephrine, Oxymetazoline, Lidocaine, Bupivacaine, Nitroglycerine infusion, Propofol, Sugammadex, Antibiotics.

Outcome 4. Number of EMS calls in which the MOPR program provides active quality assurance or education.

Rational 4.1. Measures the program's ability to support the EMS system through QI and educational efforts through direct observation and feedback.

Measure/Data Source 4.1. Number of MOPR responses with physician reporting on scene quality improvement. (MEFIRS MOPR Run Report, preferably a check box that can be queried.)

Measure/Data Source 4.2. Number of MOPR responses with physician reporting on scene education. (MEFIRS MOPR Run Report, preferably a check box that can be queried.)

Outcome 5. Number of events in which the MOPR physician provided care within the current EMS scope of practice.

Rational 5.1. Measures the program's ability to augment the current EMS scope of practice by performing skills within the current EMS scope of practice.

Measure/Data Source 5.1. Number of procedures performed within the current EMS scope of practice. (MEFIRS MOPR Run Report, procedures tab)

Outcome 6. Number of mass casualty incidents and/or mass gathering events the MOPR program responds to (with MCI as defined by either 3 or more patients involved in an acute event OR a number of patients involved in an acute event that overwhelm the standard EMS response's resources).

Rational 6.1. This measurement evaluates the number of MOPR program responses to MCI's/mass gatherings, but can be combined with Outcome 3, Measurement 3.1 and Measurement 3.2 to also determine the MOPR program's ability to provide alternate destination plans, treat and release plans, and advanced therapies.

Measure/Data Source 6.1. Number of MOPR responses associated with an MCI or mass gathering. (MEFIRS MOPR Run Report. This could either be through run report review or a run report designation that identifies the call as being associated with an MCI or mass gathering.)

Outcome 7. Number of MOPR program responses supporting critical care transport/specialty care transport events and impact of the presence of MOPR physicians on the timeliness of response.

Rational 7.1. Measures the number of times in which a MOPR program supports hospital critical care transports AND the value of having operational physicians available to support these events. May be combined with Outcome 3, Measure/Data Source 3.1, 3.2, 3.3 to build additional understanding of the value of MOPR physician support of these events.

Measure/Data Source 7.1. Number of SCT's/CCT's in which a MOPR physician is listed as a crew member. Response times and mileage. (Current MEFIRS Run Report for affiliated transporting EMS Agency). Number of MOPR run reports designated as either CCT or SCT. (MEFIRS MOPR Run Report response type).

The goal of these Outcomes and Measurements is to highlight the value of physician response throughout Maine communities. These Outcomes and Measurements represent the program's first efforts to better understand the program's merit to the existing EMS response. As the program developed, additional Outcomes and Measures may be added if they are deemed important in understanding the program's benefits.

Each MOPR pilot program site will be expected to collect the above information. As individual MOPR programs are working to ensure sustainability, Maine EMS may compile the above information without any individual patient information and supply the entire program's measurements for individual pilot sites to use as a tool for system advocacy.

Required Action by Maine EMS Board

The following list outlines the specific authorization that is be requested alongside this proposal for the Maine Operational Physicians Agency Pilot Project.

- Authorize licensure of new non-transporting license level, licensed at the Emergency Medical Responder (EMR) level, and permitted to the paramedic level. These licensed entities may be stand-alone agencies (i.e., county-level or hospital-based) or augment an existing Maine EMS licensed agency.
- Allow for self-dispatching of MOPR operational physicians, with proper notification of the respective dispatching agency and responding EMS crew members.
- Authorize Maine EMS to create a dedicated MEFIRS run report to be associated with the MOPR Pilot Project that captures data immediately related to the provision of this project and for monitoring of safety and performance.
- Expand the scope of practice that can be provided by the Maine Operational Physician Agency to match that of the BOLIM and BOL.