

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

The following list of questions were compiled through either direct communication with the MDPB and Maine EMS or received through the Maine EMS 2021 Protocol Update Webinars. The answers to these questions are, in some cases, intended to help clarify the objective of a particular protocol and in other instances intended to help clarify operational or logistical issues.

- 1) General Question - How are the Regional Hospitals being updated regarding the 2021 Maine EMS Protocols?
 - a. The MDPB, including the Regional Medical Directors, work with hospitals to share this information to all Maine hospitals so that they can educate their staff. The resources include a [2021 Protocol Update Change Reference](#), a Hospital [Protocol Update PowerPoint](#) presentation, and an updated [reference detailing where in the protocols OLMC is required](#). As with prior Maine EMS Protocol Updates, communication between EMS Agencies and local hospitals remain essential to ensure communication, collaboration, and coordination in the care of our shared patients.

 - 2) General Question - I have the MAINE EMS protocols on an app on the phone, has that already been updated to include the new protocols?
 - a. Maine EMS recognizes that many people use the protocol app as an operational aid and therefore we have NOT updated the app yet. The app will be updated at approximately midnight on Dec 1, and you should follow your device's instructions to update the app. You can use the link or the QR codes to find the new protocols in a downloadable pdf format.
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- 3) Will giving CPAP require OLMC for EMTs or is it standing protocol?
 - a. NO - CPAP will be off-line medical control for all scopes of practice as of the 2021 Protocols. However, the care of patients suffering bronchospasm is founded on pharmacologic means and maintaining pharmacologic therapies in bronchospastic diseases, especially asthma, is essential. Once CPAP is initiated in bronchospastic patients, EMTs and AEMTs are asked to call on-line medical control (OLMC) to discuss strategies for ongoing medical therapies, including continued nebulized albuterol/ipratropium or IM epinephrine.

 - 4) Blue 11 - Does the 10-minute goal of 12-lead ECG acquisition apply to EMTs as well?
 - a. YES – the goals for acquiring 12-leads in the context of chest pain or other indication should apply to all scopes of practice. Ultimately, the goal is not only to acquire the 12-lead, but to also have the 12-lead interpreted. At present, the scope of practice for interpreting 12-leads includes paramedics and physicians.

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

Please consider mechanisms to have the 12-lead interpreted as soon as possible, including partnerships with paramedic-level services (if medics are not available in the responding service) or hospitals (including technological means of sharing the patient's 12-lead with hospitals/physicians).

5) Why do the protocols include both ipratropium and albuterol at the EMT and the AEMT Scope of Practice, but including the ability for a paramedic to choose BETWEEN albuterol alone or albuterol PLUS ipratropium?

- a. The MDPB spent considerable time deliberating the 2019 National EMS Scope of Practice Updates. As described in the 2021 Protocol Update Webinars, the MEMSEd Protocol Updates, and MDPB [White Papers](#), the most common applications for nebulized medications occur in patients suffering from asthma or COPD. Please recall, these diseases share three common pathophysiologic insults: bronchospasm (addressed by albuterol), excess mucous production (addressed by ipratropium), and inflammation. The MDPB wanted to focus the use of nebulized medications initially for the EMT Scope of Practice for patients suffering from respiratory distress with bronchospasm (i.e., asthma or COPD), recognizing that adding this therapy to the EMT Scope of Practice in and of itself requires some considerable effort. For the time being, the protocols are NOT requiring EMTs or AEMTs to differentiate between when to use one of those medications and when to use both. In addition, the most common indication for the use of albuterol ONLY in the Maine EMS protocols is during the care of patients suffering Allergy and Anaphylaxis. The foundational therapy for patients suffering anaphylaxis is epinephrine. Epinephrine has similar actions as albuterol as well as additional beneficial effects, and, because of this, should be the focus of therapy for patients suffering from allergy/anaphylaxis.

Paramedics are already used to choosing between the two nebulized medications and the complexity of that decision making process is already an established expectation of the paramedic scope of practice.

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- 6) Red 12 – Refractory VF/VT – Can AEDs be used for Dual Sequential Defibrillation
 - a. NO - unfortunately, AEDs will not allow proper sequencing to allow for dual sequential defibrillation (DSD). To provide dual sequential defibrillation, responding EMS clinicians must be at the AEMT or Paramedic level and use 2 manual cardiac defibrillators.
 - 7) Regarding EMT 12-lead ECGs: if no paramedic is available at a given time and we are using the Emergency Department [ED] as our ALS, can we still capture the 12-lead if able?

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

- a. YES - you can still certainly acquire the 12-lead early and have the ED interpret it if no ALS is available. Early acquisition is very helpful and allows the ED to look for changes over time.
- 8) Red 18 – Tachycardia #2 - Why is the modified Valsalva (or any Valsalva) a paramedic skill, where it is basically non-invasive?
- a. While the skill itself is non-invasive and easy to teach, the medical decision surrounding when to apply the skill, including rhythm interpretation, are all paramedic-level skills and therefore exclusively within the paramedic scope of practice at this time.
- 9) Red 12 – PLEASE NOTE, the max dose of amiodarone for pediatric patients suffering VF/VT was cut off in the formatting on the pediatric dosing table in one draft available on the Maine EMS website.
- a. This has been corrected and updated on the Maine EMS website, however in the effort of communication, this dose has been unchanged from the 2019 Maine EMS Protocols and is as follows: Amiodarone IV/IO: 5 mg/kg bolus, MAX single dose: 300 mg. Can repeat in 3-5 minutes up to a total dose of 15 mg/kg (again, with a maximum single dose of 300 mg)
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- 10) Gold 1 and others - Regarding pediatric dosing of epinephrine throughout the protocols. Current language reads “Pediatric dose of EPINEPhrine which is as follows: Less than 25 kg, 0.15 mg IM (0.15 ml of 1mg/ml), greater than 25 kg, 0.3 mg IM (0.3 ml of 1mg/ml) IM In anterolateral thigh.
- a. The protocol should read “greater than or equal to 25 kg, 0.3 mg IM (0.3 ml of 1mg/ml) IM”. Children who are exactly 25 kg should receive the 0.3 mg dose of EPINEPhrine.
- 11) Gold 19 – Obstetric Emergencies – 12-lead ECG acquisition is currently listed in the AEMT scope of practice, can EMTs acquire 12-leads in these circumstances?
- a. YES – 12-lead acquisition and rhythm evaluation are essential in the evaluation of a patient suffering syncope. Please recognize that EMTs are also able to acquire 12-leads in the 2021 Maine EMS Protocols and should also acquire 12-leads in the case of syncope. Please remember that Paramedics are the only EMS-license clinicians that can interpret the ECG.
- 12) Gold 1 – Allergy/Anaphylaxis – Why is only Albuterol listed for the nebulized medication and not Albuterol/Ipratropium (Duoneb)?
- a. This has to do with the underlying cause of the respiratory distress in allergy/anaphylaxis and the mechanism of the medications. In allergy/anaphylaxis, the primary pathology leading to respiratory distress is

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

bronchospasm. Albuterol treats bronchospasm by binding to the beta-receptors. Respiratory distress due to asthma or COPD is caused by three mechanisms: bronchospasm, mucous production and bronchial inflammation. Albuterol will treat the bronchospasm, but the ipratropium is needed as an anticholinergic that will not only further inhibit bronchoconstriction but will also inhibit mucous secretion.

13) Green 11, Head Trauma #1 – End-tidal CO₂ (ETCO₂) is mentioned in the EMT section of the protocol. Does this mean EMTs are expected to have ETCO₂ capabilities and training?

- a. NO – While this section is listed in the EMT section of the protocol, it is specific to the patients who require advanced airway (i.e., BIAD or ETT) therapies. The technology to perform ETCO₂ is not required for EMT services and interpreting ETCO₂ is not currently taught in the EMT scope of practice. This requirement is exclusively for AEMTs or Paramedics who perform advanced airway management.

14) Could we use TXA for esophageal variceal bleeds?

- a. NO - The 2021 Maine EMS Protocols added GI Bleeds as a contraindication for TXA. Based on available evidence showing no benefit from TXA in GI bleed and trends toward worse outcomes, the MDPB added this contraindication. Reference = Ian, R, Shakur-Still, H et. al., (2020). “Effects of a high-dose 24-hour infusion of tranexamic acid on death and thromboembolic events in patients with acute gastrointestinal bleeding (HALT-IT): an international randomized, double-blind, placebo-controlled trial.” *The Lancet*, 396, 1927-1936

15) Regarding ceftriaxone in open fractures, is this similar to the New Hampshire protocol where its only to be implemented when there is a delay in definitive patient care?

- a. NO, we are recommending prehospital antibiotic administration for all open fractures, regardless of proximity to hospital. The hospital goal for initiation of antibiotics is 1 hour. In some cases, it can be difficult to achieve this goal and, in such cases, the EMS System can be of support.

16) Do we need to worry about antibiotic use and hospitals needing blood cultures?

Typically, these need to be drawn prior to antibiotic use.

- a. NO. Unlike septic patients or patients with active infections in which blood cultures may help better define the specific bacteria causing the infectious process, antibiotics in this case are being used to PREVENT infection. Because there is no active infection at the time of antibiotic provision, blood cultures are not necessary in these cases.

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

17) Yellow 4 – Naloxone Dispensation - Who provides the Naloxone kits to EMS agencies?

- a. The kits are being purchased by Maine DHHS's Office of Behavioral Health. All units will receive two kits initially, as well as small cache of kits for the agency. Agencies will be able to request additional kits through the regionalized distribution system that is managed by the Office of Behavioral Health. More information will be available in the near future, and Maine EMS will communicate that process.

18) Yellow 4 – Naloxone Distribution - How will we know the patient or family member has had the training to use the kit?

- a. Responding EMS Clinicians must provide brief training at the time of naloxone kit dispensation. There is mandatory training specific to dispensing naloxone that is required prior to participation in this process. Just in time training for patients, friends and families is included in this training.

19) Who is paying for the naloxone kits?

- a. The kits are being purchased by Maine DHHS's Office of Behavioral Health (OBH). All units will receive two kits initially, as well as small cache of kits for the agency. Agencies will be able to request additional kits through the regionalized distribution system that is managed by the Office of Behavioral Health. More information will be available in the near future, and Maine EMS will communicate that process.
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20) Pink 4 – Childbirth - Will infant warming pads be a required item to carry on ambulance by MEMS?

- a. NO. As of yet, they are NOT required equipment, however, if services choose to use infant warming pads, please consider reviewing the [Maine EMS Infant Warming Pads Required Specifications](#) document. This document lists essential considerations when choosing such devices.
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21) Grey 6 – Hospice Patients – mentions that EMS Clinicians should avoid certain interventions including “Cardiac Resuscitation: CPR, resuscitation medications, BVM ventilations”. Is this true in ALL cases?

- a. Not necessarily. Most Palliative Care physicians will engage in end-of-life conversations with patients at the initiation of hospice and in MOST instances, hospice patients will have DNR orders or POLST forms that define they DO NOT want resuscitative measures. Unfortunately, this is not true in ALL cases and therefore EMS Clinicians should validate the patient’s wishes, even when told

Maine EMS 2021 Protocol Update – FAQs

Version 1.4 Updated November 30, 2021

they are a hospice patient.

22) Grey Section - For transport of patients who are Comfort Measures Only, are multiple sets of vitals recorded still required?

- a. YES - In general, if a hospice patient is being transported, it may be related to a reason unrelated to the underlying issue prompting the patient's decision to enter into hospice. In these circumstances, please follow the existing standard and obtain vital signs as described in the Brown Section.

23) Grey 7 – Hospice Patients – Are the options for treatment of Bronchospasm ONLY for paramedics in this case

- a. NO – if the responding EMS Clinician is at the EMT or AEMT level and the patient is suffering from bronchospasm, EMTs and AEMTs may also refer to Blue 7 and offer therapies to manage bronchospasm. It was not the intention of the MDPB or Maine EMS to limit that therapy to paramedics only – and this FAQ is intended to clarify that intention. Please recognize that the MDPB will rectify this and clarify this in upcoming protocol versions.

Important Links:

- 1) [Maine Death With Dignity Law](#)
- 2) [Maine POLST Form](#)
- 3) [Maine EMS 2021 Protocols](#)