

Maine EMS 2021 Protocol Update Change Reference



This document is intended to act as a quick reference to the major changes occurring in the Maine EMS 2021 Protocol update. This document should act only as a reference and is not intended to supplant attendance at a Maine EMS Protocol Update and review of the Maine EMS 2021 Protocols, which can be found on the Maine EMS website (<http://maine.gov/dps/ems/>) under the “Publications and Forms” section.

For questions regarding these changes, please refer to your Maine EMS Regional Medical Director, the Maine EMS Medical Director/Associate Medical Director, or another member of the Maine EMS Medical Direction and Practices Board (MDPB). Thank you for reviewing this information.

Brown Section/Foreword

There were limited changes to the Brown Section in the 2021 Protocol Updates. The MDPB clarified the statements surrounding the intent of the logical order of the protocols and added references to the 2019 pediatric transport protocol in regard to securing patients during transport.

New to the 2021 protocols include a statement on the value of trending vital signs and a statement on transferring care, reminding EMS clinicians about the importance of transferring care to an equal scope of practice clinician.

Purple Section/Definitions

The Purple Section underwent a significant update intended to include all definitions used throughout the remaining document. Thirty-three additional definitions were added to this section.

Blue Section/Respiratory

The Blue Section underwent major changes to the scope of practice at the EMT level. These changes are intended to parallel the recent National Scope of Practice changes. These include adding CPAP and nebulizers to the EMT scope of practice. The MDPB clarified pediatric doses of medications for pain control post intubation/BIAD placement and added the option of oral dexamethasone for adults and pediatric patients suffering from bronchospasm who are able to tolerate orals.

Red Section/Cardiac

The Red Section also underwent changes to the EMT scope of practice including the addition of EMT 12 lead acquisition if a 12-lead machine is available and the EMT is trained. This is not intended to delay interpretation of the 12-lead, but allow early acquisition of 12-leads, similar to the AEMT scope of practice. The 2021 Red Section update introduces the new Hyperkalemia protocol. This protocol guides EMS clinicians through assessment and treatment of suspected hyperkalemia. These same treatments are reflected later in the Red Section, in the Cardiac Arrest protocol for cardiac arrests suspected due to hyperkalemia (i.e., end stage renal disease patients on dialysis). The Refractory VF/VT protocol has been changed to reflect newest evidence and now encourages initiation of additional therapies (including vector changes and ensuring proper pad contact after the 3rd defibrillation). In addition, the protocol now calls for dual-sequential defibrillation (as opposed to the 2019 protocols which call for double-sequential defibrillation), the difference being that the former strategy delivers the second defibrillation AFTER the first rather than attempting to deliver both shocks at the same time. The 2021 PEA algorithm in the Cardiac Arrest section is now divided based on rate and morphologies to reflect emerging understanding of the most common causes of PEA. The 2021 Tachycardia protocol includes the addition of the modified Valsalva maneuver, rather than traditional Valsalva techniques. The 2021 Termination of Resuscitation protocol acknowledges very rare but difficult circumstances in which patients die in route to the hospital and after the family has left the scene and are headed to the hospital. Maine EMS and the Maine Hospital Association collaborated in 2019 to communicate with hospitals, encouraging dialogue with local EMS agencies to address these events. In these instances, the MDPB encourages EMS clinicians to communicate with On Line Medical Control and continue toward the hospital. The final major change to the Red Section includes changes to the Ventricular Assist Devices protocol that are intended to encourage communication between the EMS clinician and the patient’s VAD team.

Maine EMS 2021 Protocol Update Change Reference



Gold Section/General Medical

Similar to the Blue and Red Sections, the 2021 Gold Section reflects National Scope of Practice changes to the AEMT scope, including addition of intravenous ondansetron, and removal of On Line Medical Control (OLMC) for albuterol. The MDPB also removed the need for OLMC for repeated doses of midazolam in status epilepticus but recognizing the importance and value of prompt hospital notification, continue to encourage early contact with the receiving hospital. The Gold Section also removes the need for OLMC before initiating norepinephrine for medical shock, but still calls for early hospital communication. The 2021 Medical Shock protocol also calls for physician consultation at the AEMT or Paramedic scopes of practice if questions arise regarding volume of crystalloid resuscitation in medically fragile patients (including patients with underlying CHF, ESRD on dialysis, etc.). The final major change to the Gold Section includes the development of a new Obstetric Emergencies protocol. This protocol recognizes the diminishing availability of Obstetric and Gynecologic resources in Maine, highlights a number of Ob/Gyn emergencies and attempts to guide those patients toward appropriate destinations.

Green Section/Trauma

There are two major changes to the Green Section in 2021. First, the MDPB has adopted the Arizona traumatic brain injury/[Excellence in Prehospital Care \(EPIC\)](#) protocol. This protocol focuses the EMS clinician's attention of reduction of mortality through deliberate reduction in hypoxia, hypotension and hyperventilation. The second major change to the Green Section resides in the Pain Management protocol and includes the addition of oral acetaminophen at the EMT scope of practice, intravenous acetaminophen at the AEMT and Paramedic scope of practice, and removal of On Line Medical Control (OLMC) for initiation of ketamine for pain control at the Paramedic scope of practice. Minor changes to the Green Section include the addition GI Bleeds as a contraindication to TXA. This is based largely on the [HALT-IT study](#), which demonstrated no improvement in outcomes, but increased thromboembolic events when TXA was used for GI Bleeds. Finally, the 2021 Green Section adds one new trauma protocol, namely the Open Fractures protocol that allows Paramedics to provide antibiotics for open fractures.

Yellow Section/Toxicologic and Environmental

The MDPB appreciates a close relationship with the Northern New England Poison Control Center who continue to collaborate on updates to the toxicologic protocols in the Yellow Section. Modifications include addition of other sodium channel blockers to the TCA protocol, addition of calcium gluconate to the treatments of calcium channel blocker over dose, and the addition of pressors to TCA (or sodium channel blocker) over dose that does not respond to crystalloid boluses. The environmental protocols in the Yellow Section add frostbite to the cold injuries section, including diagnosis and management.

Pink Section/Pediatric

As with the Northern New England Poison Control Center, the MDPB appreciates a close relationship with the Maine EMS for Children program who assisted in the review of the Pink Section. Please recall from the 2019 Maine EMS Protocol update that many of the pediatric treatments are currently spread throughout the Maine EMS Protocols and designated with the EMS for Children bear symbol. In addition to clarifying doses or other changes reflected above, the 2021 Pink Section adds to the Childbirth protocol by identifying five childbirth emergencies and their management. In addition, and similar to the Ob/Gyn Protocol from the Gold Section, this protocol now recognizes the diminishing Ob capabilities in Maine and attempts to guide patients to the most appropriate hospitals when the patient's condition allows and when operationally feasible.

Maine EMS 2021 Protocol Update Change Reference



Orange Section/Behavioral Emergencies

As a reminder, the 2019 Maine EMS Protocol update included the creation of an Orange Section to highlight the management of behavioral emergencies. The 2021 Maine EMS Protocols update this section by additions to the AMS and Restraint protocols that attempt to encourage best practices in managing agitated patients (including seeking a medical cause of agitation and treating appropriately, documenting attempts at verbal de-escalation, etc.). The 2021 Maine EMS Protocol updates to the Orange Section also add two protocols, an Alcohol Intoxication/Withdrawal protocol and a Care of the Homeless Individual protocol. The later of these is currently listed in the Orange Section but may be relocated in the final draft of the 2021 Maine EMS Protocols.

Grey Section/Operations

The 2021 Grey Section adds definitions to the DNR Guidelines for Living Will, Durable Power of Attorney and POSLT. The Grey Section has added a “Pre-Hospital Management of Hospice Patients” section to support instances in which EMS Clinicians are called to support hospice patients requiring comfort care toward end of life. With the passing of Maine’s Death with Dignity Law, the Grey Section has added information regarding this law. Finally, the Grey Section adds a new section discussing the management of bariatric patients.

New to the 2021 protocols is a new section intended to clarify EMS Clinician approach to crime scenes that strives to prioritize prehospital care, but also coordinate with Law Enforcement investigations.