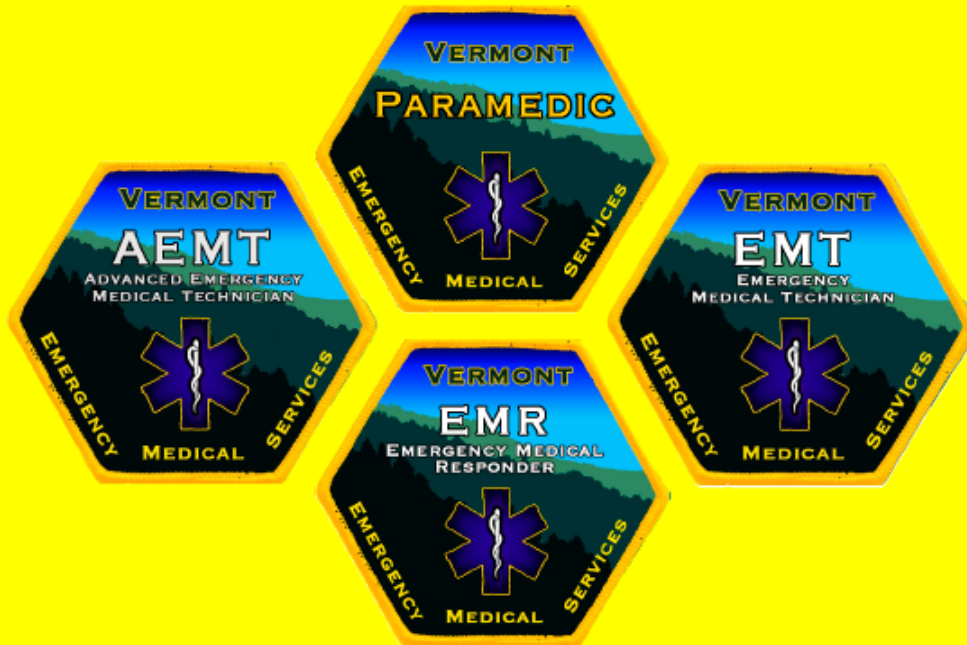




# Vermont Statewide Emergency Medical Services Protocols

2018



## Protocol Education Modules – Resource Kit

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*\*\* The information contained in this resource kit serves as guidance from VT EMS on the subject of protocol education/training. It is not intended to take the place of comprehensive initial or continuing education, including transition courses, and is designed to be used in conjunction with other educational resources such as VT EMS developed presentations, knowledgeable instructors, etc.*

## RESOURCE KIT

### *Overview of the Education Module - Resource Kit for the Vermont Statewide EMS Protocols*

This document has been created as a guide for both EMS providers and EMS Services to complete the education modules for the 2018 Vermont Statewide EMS Protocol Updates. This training is required for every level of licensure. This training is also required content for all initial EMR, EMT, AEMT, and Paramedic courses.

If an EMS Service does not carry the equipment necessary for a protocol, then that protocol cannot be used and the training does not need to be completed. When an EMS Service purchases the necessary equipment, it will be expected that the training will then be completed. If an EMS provider works at multiple services, they should complete all required training on all available equipment.

If a district or EMS Service has already completed training on a skill listed due to a waiver granted under the previous set of EMS protocols, providers and/or services must be able to provide documentation to VT EMS that verifies the curricula and attendance of members.

This Resource Kit has been developed to provide both providers and EMS Services with multiple options for completing the education.

### **Presentation Methods**

There are several possible formats in which topics may be presented and learned:

- **Individual learning:**
  - **LearnEMS:** All presentations are on LearnEMS and can be accessed by logging in. The course title and course number (if applicable) are listed. Presentations on LearnEMS may be viewed individually or as a group. Some of the presentations have quizzes. While quizzes do not have to be completed to receive credit remember that self-assessment is a useful tool for review and practice.

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- **Some topics require additional practical skills component that must be completed at the EMS Service level (see below).**
- **EMS Service-level Trainings (at the department, agency, squad, etc.):** To benefit from group learning opportunities, the protocol material can be delivered in a classroom setting by several methods, making use of qualified instructors including Training Officers, VT EMS I/Cs, hospital staff, senior EMS crew members, etc.
  - **LearnEMS:** As stated above, the presentations on LearnEMS can be done as a group. (Example: Training Officer connects a projector to a computer at the station, logs into LearnEMS and runs the course live for the group.)
  - **Physician/Allied Health Qualified Instructors:** These instructors may use their own educational material as long as it is in line with the Vermont Statewide EMS Protocols. For example, a respiratory therapist can deliver instructions on the indications for CPAP and principles of use for CPAP, but they should be familiar with the nuances of the protocol.  
***\*\*Exceptions to this option: Spinal Motion Restriction Protocol and the 2018 Vermont Statewide EMS Protocols Update Module – for which the Vermont EMS Presentation must be used.\*\****

### **Required Participants:**

Who is required to complete this education? The options are for EMR, EMT, AEMT, and/or Paramedic. Both the Quick Reference Chart beginning on page 6 and each individual topic list will include which license level is required to take each course.

### **Practical Skills:**

Is there a practical requirement for the topic? If yes, this section will provide guidance for how to perform that training at the EMS Service level. The practical component must be instructed by a higher-level licensure. For example: an AEMT can instruct a practical for EMTs, or a

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Paramedic/RN/RT/MD can instruct a practical for AEMT. Paramedic training should be facilitated by the Paramedic's training officer.

All providers must review and demonstrate proficiency in Spinal Motion Restriction. Paramedics should receive training on the use of ketamine and double sequential defibrillation

### **Documentation:**

Documentation of completion of both the presentation and practical components should be completed at the EMS Service level with a roster. (The exceptions are all courses *individually* completed in LearnEMS, which that system tracks automatically. Enhanced permissions for Training Officers allow for group training to be entered and tracked in the LearnEMS accounts of all participants.) A sample roster can be found on page 15 of this document. The roster should be kept at the EMS Service. In addition, each provider should keep track of their own protocol education. At the end of this document is a tracking template that can be utilized. Both the provider and service should track all protocol training hours as they do for all other continuing education requirements.

### **Implementation:**

The final protocols were released in mid-May. Once posted, EMS Services and districts are authorized to begin training their personnel. Before an agency may begin to use the new protocols, **ALL** of the agency's providers must be trained on the new protocols. Once an agency has trained all of their providers, they **MAY** begin to use the new protocols as of **00:01 hours on May 18<sup>th</sup>, 2018**. **ALL** agencies **MUST** begin to use the new protocols no later than **23:59 hours on August 18, 2018**.

Any questions or concerns should be directed to Dan Batsie at Vermont EMS.

Daniel.Batsie@vermont.gov

Quick Reference Chart					
Topic/Skill	Presentation Availability/Practical Component	EMR	EMT	AEMT	Paramedic
2018 Protocol Update	<p><b>LearnEMS:</b> 2018 VT EMS Protocols Update Part 1 and Part 2</p> <p><b>EMS Service Level Training:</b> Use of the 2018 VT EMS Protocols Update presentation required</p> <p><b>Practical:</b> Optional* *Practical required if your agency plans to use TXA or double sequential defibrillation.</p>	X	X	X	X
Spinal Motion Restriction Review	<p><b>LearnEMS:</b> Spinal Motion Restriction</p> <p><b>EMS Service Level Training:</b> Use of the Spinal Motion Restriction presentation required.</p> <p><b>Practical:</b> YES</p>		X	X	X
Ketamine	<p><b>LearnEMS:</b> Ketamine Administration by Paramedics</p> <p><b>EMS Service Level Training:</b> Use of the Ketamine Administration by Paramedics presentation is required .</p> <p><b>Practical:</b> YES</p>				X

*2018 Vermont EMS Protocols Update*

**Presentation Methods:**

- **Individual Learning:**
  - LearnEMS: The presentation is on LearnEMS under the title *2018 Protocol Update*. The presentation can be viewed individually or as a group.
- **EMS Service-level Training:**
  - LearnEMS: The presentation is on LearnEMS under the title *2018 Protocol Update*. The presentation can be viewed individually or as a group.
  - Physician/Allied Health Qualified Instructors: It is required that the presentation titled *2018 Protocol Update* be used for an in-service training.

**Required:** EMR, EMT, AEMT, Paramedic

**Practical:** A practical is required for the following components of the presentation: Ketamine Administration by Paramedics and Double Sequential Defibrillation. See additional information in practical sections below.

**Documentation:**

- EMS Service Level: Roster
- Individual Provider: Protocol tracking document

## ***TXA Practical***

### **Presentation:**

- The presentation is on LearnEMS under the title *2018 Protocol Update*. Refer only to section presentation on Tranexemic Acid (TXA)- Adult 4.7. Paramedics must have District Medical Advisor approval before using TXA.

**Required:** Paramedic (Only required if agency has District Medical Advisor Approval)

### **Practical:**

- Materials required (to be completed with squad specific equipment):
  - Infusion pump, syringe, practice ampule or vial, needles, TXA Protocol 4.7.
- Objectives:
  - Review indications and contraindications to use of TXA.
  - Demonstrate proper medication withdrawal and mixing into 100ml NS or LR.
  - Demonstrate proper use of infusion pump for appropriate drip rate
  - Review infusion pearls.

### **Documentation:**

- EMS Service Level: Roster for both presentation and practical
- Individual Provider: Protocol tracking document



## *Double Sequential Defibrillation Practical*

### **Presentation:**

- The presentation is on LearnEMS under the title *2018 Protocol Update*. Refer only to section presentation on Double Sequential Defibrillation 6.1. Paramedics may attempt double sequential defibrillation if the patient meets the necessary criteria AND a second manual defibrillator is available.

**Required:** Paramedic

### **Practical:**

- Materials required (to be completed with squad specific equipment):
  - Simulated patient torso (CPR manikin), two cardiac monitors with training pads or real pads, depending on agency resources.
- Objectives:
  - Review indications for double sequential defibrillation
  - Review the definitions of recurrent ventricular fibrillation/tachycardia and refractory ventricular fibrillation/tachycardia.
  - Review proper procedure for double sequential defibrillation
  - Demonstration proper procedure for double sequential defibrillation
  - Review practice PEARLS

### **Documentation:**

- EMS Service Level: Roster for both presentation and practical
- Individual Provider: Protocol tracking document

*Spinal Motion Restriction (with Advanced Spinal Assessment Review)*

**Presentation Methods:**

- **Individual Learning:**
  - LearnEMS: The presentation is on LearnEMS under the title *Spinal Motion Restriction*. The presentation can be viewed individually or as a group.
- **EMS Service-level Training:**
  - LearnEMS: The presentation is on LearnEMS under the title *Spinal Motion Restriction*.
  - Physician/Allied Health Qualified Instructors: It is required that the presentation titled *Spinal Motion Restriction* on LearnEMS or the Vermont EMS Website be used.

**Required:** EMT, AEMT, Paramedic

**Practical:** Yes. See following section for practical instructions.

**Documentation:**

- EMS Service Level: Roster
- Individual Provider: Protocol tracking document

*Spinal Motion Restriction (with Advanced Spinal Assessment Review) Practical*

**Practical:**

- Materials required: Cervical spine collar, backboard, straps, ambulance stretcher
- Show protocol
  - The instructor will demonstrate the general assessment of a patient with a possible spinal cord injury and determine the proper treatment plan using the Advanced Spinal Assessment per the Vermont Statewide EMS Protocols. The instructor should demonstrate a variety of scenarios that show students examples of each of the treatment plans
  - The student will then demonstrate the general assessment of a patient with a possible spinal cord injury and determine the proper treatment plan using the Advanced Spinal Assessment per the Vermont Statewide EMS Protocols
    - If the patient has unstable vital signs or abnormal peripheral perfusion, spinal motion restriction is required.
    - Determine patient reliability
      - Reliable
        - Calm, cooperative, sober, and alert and oriented to person, place, and time. If child, able to participate.
        - If reliable, then may continue assessment
      - Unreliable
        - Child not able to participate
        - Anxious and uncooperative
        - Communication barriers (e.g., deafness, hard of hearing, language, understanding)
        - Altered mental status (not alert and oriented x3)
        - Evidence of alcohol or drug intoxication
        - Distracted by circumstances or injuries to self or others (i.e., any other injury capable of producing significant pain in this patient)
    - Performs motor exam

- Any abnormal neurologic function in extremities requires spinal immobilization, including:
  - Numbness or tingling (paresthesia)
  - Motor strength not full and symmetrical
  - Sensation not intact and symmetrical
- Palpate entire spine for tenderness
  - Explain to the patient the actions that you are going to take. Ask the patient to immediately report any pain, and to answer questions with a “yes” or “no” rather than shaking the head
  - With the patient’s spine supported to limit movement, begin palpation at the base of the skull at the midline of the spine
  - Palpate the vertebrae individually from the base of the skull to the bottom of the sacrum
  - On palpation of each vertebral body, look for evidence of pain and ask the patient if they are experiencing pain. If evidence of pain along the spinal column is encountered, the patient should be placed in spinal motion restriction.
- If patient meets above criteria are they able to rotate neck?
  - If the capable patient is found to be pain free, ask the patient to turn their head first to one side (so that the chin is pointing toward the shoulder) then, if pain free, to the other. If there is evidence of pain the patient should be placed in spinal motion restriction.
  - With the head rotated back to its normal position, ask the patient to flex and extend their neck. If there is evidence of pain, the patient should be immobilized. Do not assist patient in attempts to rotate neck.
- There may be the rare exception and there are different levels of provider comfort. With that in mind, each provider and team must determine a management plan on a case-by-case basis, and when in doubt may fully immobilize the patient
  - Perform on-going assessment

## RESOURCE KIT

- Communication
  - What
    - Assessment findings (including the results of Advanced Spinal Assessment)
    - Treatments
    - Results of treatments
  - Who
    - Personnel at receiving facility
    - Other EMS providers
- Documentation
  - What
    - Assessment findings (including the results of Advanced Spinal Assessment)
    - Treatments
      - Results of treatments
  - Where
    - PCR/SIREN
    - Performance improvement – Quality improvement
- The student will then practice and demonstrate proper technique for patients that require Spinal Motion Restriction
  - Apply a rigid cervical collar
  - Self-extrication by patient is allowable if patient is capable, otherwise utilize backboard as an extrication device
  - Position backboarded patient on stretcher then remove backboard by using log roll or lift-and-slide technique.
    - Explain that situations or treatment priorities may require patient to remain on rigid vacuum mattress or backboard including the multi-trauma patient who requires rapid transport, or the combative patient.

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- With the patient lying flat, secure patient firmly with all stretcher straps and leave the cervical collar in place. Instruct the patient to avoid moving head or neck as much as possible.
- Elevate stretcher back ONLY if necessary for patient compliance, respiratory function, or other significant treatment priority.
- If patient poorly tolerates collar (e.g. due to anxiety, shortness of breath, torticollis), replace with towel roll and/or padding.
- Patients with nausea or vomiting may be placed in a lateral recumbent position. Maintain neutral head position with manual stabilization, padding/pillows, and/or the patient's arm.
- Review Pediatric Transportation Policy 8.13

## RESOURCE KIT

The chart below can be utilized for practicing Spinal Motion Restriction and Advanced Spinal Assessment:

<b>Step</b>	<b>Yes</b>	<b>No</b>
Scene Safety & BSI		
Manual immobilization if indicated		
Determines high risk or questionable injury mechanism		
Determines if patient has unstable vital signs or abnormal and/or abnormal peripheral perfusion – if yes, must immobilize		
Determines reliable patient (Calm, cooperative, sober, alert and oriented to person, place, and time, etc.) If child, able to participate.		
Performs motor exam in all extremities assessing for numbness, tingling, motor strength, and sensation		
Palpates the entire spine for tenderness		
If patient meets above criteria, has patient flex, extend, and rotate their neck without pain		
Verbalize documentation		
Instructor asks the candidate what action would be taken if one of the above criteria resulted in an abnormal exam		
Student indicates appropriate actions		
Student demonstrates proper SMR technique		
Student demonstrates how to use backboard as extrication device		
Demonstrate SMR while removing patient from backboard onto stretcher		
Verbalize when it would be appropriate to transport patient on backboard		

## RESOURCE KIT

### *Ketamine Administration by Paramedics*

#### **Presentation:**

- The presentation is on LearnEMS under the title *Ketamine Administration by Paramedics*.

**Required:** Paramedic (Only required if agency plans on carrying this medication)

#### **Practical:**

- Review ketamine specific training with training officer
- Materials required (to be completed with squad specific equipment):
  - Ketamine Resource Kit
  - Worksheet
  - Self-Assessment

#### **Documentation:**

- EMS Service Level: Roster for both presentation and practical
- Individual Provider: Protocol tracking document



RESOURCE KIT

*Class Roster for Practical Component Record Keeping*

Date:	
Protocol Education Module Topic:	
Instructor(s):	
Location:	

<b>Name</b>	<b>Signature</b>	<b>Vermont License #</b>

RESOURCE KIT

*EMR Protocol Education Tracking Document*

**Name:**

**VT License #:**

<b>Topic/Skill</b>	<b>Presentation View Date:</b>	<b>Instructor or Squad Training Officer Signature:</b>
2018 Vermont Statewide EMS Protocols Update		

*EMT Protocol Education Tracking Document*

**Name:**

**VT License #:**

<b>Topic/Skill</b>	<b>Presentation View Date:</b>	<b>Practical Date:</b>	<b>Instructor or Squad Training Officer Signature:</b>
2018 Vermont Statewide EMS Protocols Update		N/A	
Spinal Motion Restriction (with Advanced Spinal Assessment review)			

<i>AEMT Protocol Education Tracking Document</i>			
<b>Name:</b>			
<b>VT License #:</b>			
<b>Topic/Skill</b>	<b>Presentation View Date:</b>	<b>Practical Date:</b>	<b>Instructor or Squad Training Officer Signature:</b>
2018 Vermont Statewide EMS Protocols Update		N/A	
Spinal Motion Restriction (with Advanced Spinal Assessment review)			

RESOURCE KIT

***EMT-P/Paramedic Protocol Education Tracking Document***

**Name:**

**VT License #:**

<b>Topic/Skill</b>	<b>Presentation View Date:</b>	<b>Practical Date:</b>	<b>Instructor or Squad Training Officer Signature:</b>
2018 Vermont Statewide EMS Protocols Update		N/A	
Spinal Motion Restriction (with Advanced Spinal Assessment review)			
Ketamine Administration for Paramedics			
Double Sequential Defibrillation	N/A		

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