

RULE 500

Colorado Board of Medical Examiners Rules Defining the Duties and Responsibilities of Emergency Medical Services Medical Directors and The Authorized Medical Acts of Emergency Medical Technicians

3-CCR-713-6

SECTION 1 - Purpose and Authority for Establishing Rules

- 1.1 The purpose of these rules is to define the duties and responsibilities of medical directors to EMS service agencies and to define the authorized medical acts of emergency medical technicians (EMTs).
- 1.2 The general authority for the promulgation of these rules is set forth in § 12-36-104 and § 25-3.5-203, C.R.S.
- 1.3 These rules apply to and are controlling for any physician functioning as a medical director to an emergency medical services organization and who authorizes and directs the performance of medical acts by EMTs at all levels of certification in the State of Colorado. These rules also define the scope of practice for EMTs.

SECTION 2 – Definitions - All definitions that appear in § 25-3.5-103, C.R.S., shall apply to these rules.

- 2.1 “BME” - The Colorado State Board of Medical Examiners.
- 2.2 “Department” - The Colorado Department of Public Health and Environment.
- 2.3 “Department-certified EMT” – any individual who has been certified by the department to act as an EMT-Basic, an EMT-Intermediate or an EMT-Paramedic.
- 2.4 “Emergency Medical Technician-Basic (EMT-Basic)” - an individual who has a current and valid EMT-Basic certificate issued by the department in accordance with the Rules Pertaining to Emergency Medical Services, 6 CCR 1015-3 (referred to herein as the “State EMS Rules”), and is authorized to provide basic emergency medical care in accordance with these rules of the BME.
- 2.5 “Emergency Medical Technician-Basic with IV Authorization” – an individual who has a current and valid EMT-Basic certificate issued by the department in accordance with the State EMS Rules and has met the conditions defined in Section 4.4 of these rules.
- 2.6 “Emergency Medical Technician-Intermediate (EMT-Intermediate)” - an individual who has a current and valid EMT-Intermediate certificate issued by the department in accordance with the State EMS Rules and is authorized to provide limited acts of advanced emergency medical care in accordance with these rules of the BME.
- 2.7 “Emergency Medical Technician-Paramedic (EMT-Paramedic)” - an individual who has a current and valid EMT-Paramedic certificate issued by the department in

accordance with the State EMS Rules and is authorized to provide advanced emergency medical care in accordance with these rules of the BME.

2.8 Repealed.

2.9 “EMS Service Agency” - any organized agency including but not limited to a “rescue unit” as defined in § 25-3.5-103(11), C.R.S., using department-certified EMTs to render initial emergency medical care to a patient prior to or during transport. This definition does not include criminal law enforcement agencies, unless the criminal law enforcement personnel are EMTs who function with a “rescue unit” as defined in § 25-3.5-103(11), C.R.S. or are performing any medical act described in these rules.

2.10 “Graduate EMT-Intermediate” - an individual who has a current and valid Colorado EMT-Basic certification issued by the department in accordance with the State EMS Rules and has successfully completed a department-recognized EMT-Intermediate education program but has not yet successfully completed the certification requirements set forth in the State EMS Rules.

2.11 “Graduate EMT-Paramedic” - an individual who has a current and valid Colorado EMT-Basic certificate or a current and valid Colorado EMT-Intermediate certification issued by the department in accordance with the State EMS Rules and has successfully completed a department-recognized EMT-Paramedic education program but has not yet successfully completed the certification requirements set forth in the State EMS Rules.

2.12 “Medical Base Station” - the source of direct medical communications with and supervision of the immediate field emergency care performance by department-certified EMTs.

2.13 “Medical Director” - a physician who holds an active Colorado medical license, who authorizes and directs, through protocols and standing orders, the performance of students-in-training enrolled in department-recognized EMS education programs, graduate EMT-Intermediates or EMT-Paramedics, or department-certified EMTs of a prehospital EMS service agency and who is specifically identified as being responsible to assure the competency of the performance of those acts by such department-certified EMTs as described in the physician’s medical continuous quality improvement program.

2.14 “Protocol” - written standards for patient medical assessment and management

2.15 “Standing Order” - written authorization by a medical director for the performance of specific medical acts by department-certified EMTs before such department-certified EMTs are able to establish communications with the supervising medical base station, or in the event of communications malfunctions with the medical base station.

2.16 “State EMS Rules” –Rules Pertaining to Emergency Medical Services, 6 CCR 1015-3, promulgated by the State Board of Health.

2.17 "Supervision" – Oversee, direct or manage. Supervision may be through direct observation or by indirect oversight as defined in the medical director's continuous quality improvement program.

SECTION 3 - Qualifications and Responsibilities of Medical Directors

3.1 A medical director shall possess the following minimum qualifications:

- a) Be a physician currently licensed to practice medicine in the State of Colorado.
- b) Be actively involved in the provision of emergency medical services in the community served by the EMS service agency being supervised. Involvement does not require that a physician have such experience prior to becoming a medical director, but does require such involvement during the time that he or she acts as a medical director. Active involvement in the community could include, by way of example and not limitation, those inherent, reasonable and appropriate responsibilities of a medical director to interact with patients, the public served by the EMS service agency, the hospital community, the public safety agencies, and the medical community, and should include other aspects of liaison oversight and communication normally expected in the supervision of department-certified EMTs.
- c) Be actively involved on a regular basis with the EMS service agency being supervised. Involvement does not require that a physician have such experience prior to becoming a medical director, but does require such involvement during the time that he or she acts as a medical director. Involvement could include, by way of example and not limitation, involvement in continuing education, audits, and protocol development. It is not acceptable merely to have passive or negligible involvement with the EMS service agency and supervision of department-certified EMTs.
- d) Be trained in Advanced Cardiac Life Support.
- e) Physicians acting as medical directors for department-recognized EMS education programs must possess authority under their licensure to perform all medical acts included in any and all curricula presented by the program.

3.2 The responsibilities of a medical director shall include:

- a) Notify the department of the service agencies and individuals for which medical control functions are being provided.
- b) Establish a medical continuous quality improvement program for each EMS service agency being supervised. The medical continuous quality improvement program must assure the continuing competency of the performance of that agency's department-certified EMTs. This medical continuous quality improvement program shall include, but not necessarily be limited to, appropriate protocols and standing orders, and

provision for medical care audits, observation, critiques, primary and continuing medical education and direct supervisory communications.

- c) Submit to the department an affidavit that attests to the development and use of a medical continuous quality improvement program for an EMS service agency's department-certified EMTs. The department and the BME may review the records of a medical director to determine compliance with the requirements in these rules.
 - d) Provide monitoring and supervision of the medical field performance of each supervised EMS service agency's department-certified EMTs. This responsibility may be delegated to other physicians or other qualified health care professionals designated by the medical director. However, the medical director shall retain ultimate authority and responsibility for the monitoring and supervision, for establishing protocols and standing orders and for the competency of the performance of authorized medical acts.
 - e) Ensure that each direct verbal order, written standing order or protocol is appropriate for the certification and skill level of each of the individuals to whom the performance of medical acts is delegated and authorized. The medical director shall be familiar with the training, knowledge and competence of each of the individuals to whom the performance of such procedures is delegated.
 - f) Notify the BME and the department within fourteen business days excluding state holidays prior to his or her cessation of duties as medical director pursuant to these rules.
 - g) Notify the department within fourteen business days excluding State holidays of his or her termination of the supervision of a department-certified EMT for reasons that may constitute good cause for disciplinary sanctions pursuant to the State EMS Rules. Such notification shall be in writing and shall include a statement of the actions or omissions resulting in termination of supervision and copies of all pertinent records.
 - h) Physicians acting as medical directors for EMS education programs recognized by the department that require clinical and field internship performance by students shall be permitted to delegate authority to a student-in-training during their performance of program-required medical acts and only while under the control of the education program.
- 3.3 The medical director shall be accountable to the BME for all acts or omissions that fail to meet generally accepted standards of medical practice and/or that violate these rules. The department and the BME may review the records of a supervising physician to determine compliance with the requirements in these rules.

SECTION 4 - Medical Acts Allowed for the EMT-Basic

- 4.1 An EMT-Basic may, under the supervision and authorization of a medical director, perform emergency medical acts consistent with and not to exceed those listed in Appendices A and C of these rules for an EMT-Basic, in accordance with the provisions of Section 3 of these rules.
- 4.2 An EMT-Basic may, under the supervision and authorization of a medical director, administer and monitor medications and classes of medications consistent with and not to exceed those listed in Appendices B and D of these rules for an EMT-Basic, in accordance with the provisions of Section 3 of these rules.
- 4.3 Any EMT-Basic who is a member or employee of an EMS service agency and who performs said emergency medical acts must have authorization and be supervised by a medical director to perform said emergency medical acts.
- 4.4 EMT-Basics may carry out a physician order for a mental health hold as set forth in § 27-10-105(1), C.R.S. Such physician order may be a direct verbal order or by electronic communications.
- 4.5 An EMT-Basic who has successfully completed a department-recognized intravenous education course may be referred to as an “Emergency Medical Technician – Basic with IV Authorization.” Any provisions of these rules that are applicable to an EMT-Basic shall also be applicable to an EMT-Basic with IV Authorization. In addition to the acts an EMT-Basic is allowed to perform, an EMT-Basic with IV Authorization may, under supervision and authorization of a medical director, perform medical acts consistent with and not to exceed those listed in Appendices A and C of these rules for an EMT-Basic with IV Authorization in accordance with the provisions of Section 3 of these rules. In addition to the medications and classes of medications an EMT-Basic is allowed to administer and monitor pursuant to these rules, an EMT-Basic with IV Authorization may, under supervision and authorization of a medical director, administer and monitor medications and classes of medications consistent with and not to exceed those listed in Appendices B and D of these rules for an EMT-Basic with IV Authorization, in accordance with the provisions of Section 3 of these rules.
- 4.6 An EMT-Basic with IV authorization may, under the supervision and authorization of a medical director, administer and monitor medications and classes of medications which exceed those listed in Appendices B and D of these rules for an EMT-Basic with IV authorization under the direct visual supervision of an EMT-Intermediate or Paramedic when the following conditions have been established:
 - a) The patient must be in cardiac arrest or in extremis.
 - b) Drugs administered must be limited to those authorized by the BME for EMT-Intermediate or Paramedic as stated in Appendices B and D in accordance with the provisions of Section 3 of these rules.

- c) The medical director(s) must amend the appropriate protocols and medical continuous quality improvement program used to supervise the EMS personnel to reflect this change in patient care. The medical director(s) and the protocol(s) of the EMT-Basic and the EMT-Intermediate or Paramedic, must all be in agreement.

SECTION 5 - Medical Acts Allowed for the EMT-Intermediate

- 5.1 In addition to the acts an EMT-Basic and an EMT-Basic with IV Authorization are allowed to perform pursuant to these rules, an EMT-Intermediate may, under the supervision and authorization of a medical director perform advanced emergency medical care acts consistent with and not to exceed those listed in Appendices A and C of these rules for an EMT-Intermediate, in accordance with the provisions of Section 3 of these rules.
- 5.2 In addition to the medications and classes of medications an EMT-Basic and an EMT-Basic with IV Authorization are allowed to administer and monitor pursuant to these rules, an EMT-Intermediate may, under the supervision and authorization of a medical director, administer and monitor medications and classes of medications defined in Appendices B and D of these rules for an EMT-Intermediate, in accordance with the provisions of Section 3 of these rules.
- 5.3 EMT-Intermediates may carry out a physician order for a mental health hold as set forth in § 27-10-105(1), C.R.S. Such physician order may be a direct verbal order or by electronic communications.
- 5.4 An EMT-Intermediate may, under the supervision and authorization of a medical director, administer and monitor medications and classes of medications which exceed those listed in Appendices B and D of these rules for an EMT-Intermediate under the direct visual supervision of an EMT-Paramedic, when the following conditions have been established:
 - a) Drugs administered must be limited to those authorized by the BME for EMT-Paramedics as stated in Appendices B and D, in accordance with the provisions of Section 3 of these rules.
 - b) Medical director(s) must amend the appropriate protocols and medical continuous quality improvement program used to supervise the EMS personnel to reflect this change in patient care. The medical director(s) and protocol(s) of the EMT-Intermediate and Paramedic must all be in agreement.
- 5.5 In the event of disaster or emergency, the Chief Medical Officer for the Department of Public Health and Environment or the State EMS Medical Director may temporarily authorize the administration of other immunizations, vaccines, biologicals or tests not listed in these rules.

SECTION 6 - Medical Acts Allowed for the EMT-Paramedic

- 6.1 In addition to the acts an EMT-Intermediate is allowed to perform pursuant to these rules, an EMT-Paramedic may, under the supervision and authorization of a

medical director, perform advanced emergency medical care acts consistent with and not to exceed those listed in Appendices A and C of these rules for an EMT-Paramedic, in accordance with the provisions of Section 3 of these rules.

6.2 In addition to the medications and classes of medications an EMT-Intermediate is allowed to administer and monitor pursuant to these rules, an EMT-Paramedic may, under the supervision and authorization of a medical director, administer and monitor medications and classes of medications defined in Appendices B and D for an EMT-Paramedic, under standing order or direct verbal order of a physician, including by electronic communications, in accordance with the provisions of Section 3 of these rules.

6.3 EMT-Paramedics may carry out a physician order for a mental health hold as set forth in § 27-10-105(1), C.R.S. Such physician order may be a direct verbal order or by electronic communications.

SECTION 7- General Acts Allowed

7.1 Department-certified EMTs may function in acute care settings. Functioning in this environment must be in compliance with the BME's statutes and rules, under the auspices of a medical director and within parameters of the acts allowed or waiver as described in these rules.

7.2 EMTs may not practice in camps in a nursing capacity including the dispensing of medications.

7.3 Any EMT working for an EMS service agency must be supervised by a medical director who complies with the requirements in these rules.

7.4 Any medical director may apply to the BME for a waiver to allow additional medical acts for EMTs under his/her supervision in specific circumstances, based on established need, provided that on-going quality assurance of each EMT's competency is maintained by the medical director. Applications for waiver are available from the BME or the department. A waiver is not necessary under the circumstances described in BME Rule 800 or under Appendices A, B, C or D of this rule.

7.5 Waivers granted by the Board on or after November 21, 2009, shall be in effect for a period not to exceed 2 years unless otherwise specified by the Board. For waivers authorized by the Board prior to November 21, 2009, the expiration date shall be as follows:

- a) If the waiver identified a date of expiration, the waiver shall expire on that date.
- b) For waivers that do not include a date of expiration or otherwise identify any length of duration, such waivers shall expire in accordance with the schedule outlined below:
 - i. Waivers filed by a medical director whose last name begins with A through H shall expire on February 1, 2010.

- ii. Waivers filed by a medical director whose last name begins with I through P shall expire on February 1, 2011.
 - iii. Waivers filed by a medical director whose last name begins with Q through Z shall expire on February 1, 2012.
- c) This provision does not prohibit a medical director from requesting that the Board renew a waiver previously submitted provided that the information is appropriately updated and otherwise in compliance with this rule.

7.6 An annual report must be submitted to the Board for every waiver authorized by the Board.

7.7 All levels of EMT may, under the supervision and authorization of a medical director, perform specific skills or administer specific medications not listed in Appendices A, B, C, or D of this rule, only if the medical director has been granted a waiver from the BME for that specific skill or medication, in accordance with the provision of Section 3 of these rules. Waivered skills or medication administration may be authorized by the medical director under standing orders or direct verbal orders of a physician, including by electronic communications. No EMT shall function beyond the scope of practice identified in rule 500 for their level until their medical director has received official written confirmation of the waiver being granted by the BME.

7.8 A medical director may limit the scope of practice of any EMT.

SECTION 8 - Graduate EMT-Intermediates and Graduate EMT-Paramedics.

8.1 Medical directors may supervise graduate EMT-Intermediates as defined in these rules acting as EMT-Intermediates for a period of no more than six months following successful completion of an appropriate department-recognized education program. Medical directors may supervise graduate EMT-Paramedics as defined in these rules acting as EMT-Paramedics for a period of no more than six months following successful completion of an appropriate department-recognized education program. Such graduate EMT-Intermediates and graduate EMT-Paramedics must successfully complete certification requirements, as specified in the State EMS Rules, within six months of the successful completion of a department-recognized education program to continue to function under the provisions of these rules.

SECTION 9 - Jurisdiction of Enforcement

9.1 All acts in violation of these rules by a department-certified EMT shall be referred to the department for review and appropriate action in accordance with the Colorado Emergency Medical and Trauma Services Act, § 25-3.5-101 et seq., C.R.S., and the State EMS Rules. Complaints in writing relating to the actions of a department-certified EMT pursuant to these rules of the BME may be initiated by any person or by the BME or the department.

- 9.2 Pursuant to § 12-36-106(2), C.R.S., any person who performs any of the acts constituting the practice of medicine as defined by § 12-36-106(1), C.R.S. and who is not licensed by the BME to practice medicine or exempt from licensure requirements by some provision of § 12-36-106, C.R.S. shall be deemed to be practicing medicine without a license. Such person may be held criminally liable pursuant to § 12-36-129(1), C.R.S. and/or may be the subject of injunctive proceedings by the BME in the name of the people of the State of Colorado pursuant to § 12-36-132, C.R.S.
- 9.3 All acts in violation of these rules of the BME by a physician shall be referred to the BME for review and appropriate action in accordance with § 12-36-118, C.R.S. Complaints in writing relating to the actions of any physician pursuant to these rules of the BME may be initiated by any person or by the BME or the department.

APPENDICES

These Appendices define the maximum skills, acts or medications that may be delegated to an EMT-Basic, EMT-Basic with IV Authorization, EMT-Intermediate, EMT-Paramedic under appropriate supervision by a medical director.

Y = YES May be performed or administered by emergency medical technicians with physician supervision as described in these rules.

Y* = Medications with an asterisk (*) shall be administered only under direct verbal order by a physician.

There are a few special circumstances when the EMT-Intermediate is unable, despite adequate attempts, to make contact with a physician to obtain a direct verbal order. In those cases the EMT-Intermediate is allowed to administer the following medications under standing order:

- 1) Cardiac arrest medications (amioderone, atropine, epinephrine, lidocaine, vasopressin) may be administered under standing order in the case of cardiac arrest.
- 2) Behavioral management medications (haloperidol, diazepam, and midazolam) may be administered under standing order when the safety of the patient or the EMT is at risk.
- 3) In such special circumstances when, a direct verbal order has not been obtained, the medical director should be notified.

N = NO May not be performed or administered by emergency medical technicians except with a BME-approved waiver as described in Section 7.4 of these rules.

B = Medical acts, skills or medications that may be performed or administered by an EMT-Basic with appropriate medical director supervision and training recognized by the department.

B-IV = Medical acts, skills or medications that may be performed or administered by an EMT-Basic with IV Authorization with appropriate medical director supervision and training recognized by the department.

I = Medical acts, skills or medications that may be performed or administered by an EMT-Intermediate with appropriate medical director supervision and training recognized by the department.

P = Medical acts, skills or medications that may be performed or administered by an EMT-Paramedic with appropriate medical director supervision and training recognized by the department.

APPENDIX A

**PREHOSPITAL
MEDICAL SKILLS AND ACTS ALLOWED**

Additions to these medical skills and acts allowed cannot be delegated unless a waiver has been granted as described in Sections 7.4 – 7.8 of these rules.

AIRWAY/VENTILATION/OXYGEN ADMINISTRATION				
Skill	B	B-IV	I	P
Airway – Esophageal-Single Lumen	N	N	N	N
Airway – Laryngeal Mask	Y	Y	Y	Y
Airway – Esophageal/Tracheal – Multi Lumen	Y	Y	Y	Y
Airway – Nasal	Y	Y	Y	Y
Airway – Oral	Y	Y	Y	Y
Bag – Valve – Mask (BVM)	Y	Y	Y	Y
Carbon Monoxide Monitoring	Y	Y	Y	Y
Chest Decompression – Needle	N	N	Y	Y
Chest Tube Insertion	N	N	N	N
CPAP/BiPAP/PEEP	N	N	Y	Y
Cricoid Pressure - Sellick's Maneuver	Y	Y	Y	Y
Cricothyroidotomy – Needle	N	N	N	Y
Cricothyroidotomy – Surgical	N	N	N	N
Demand Valve – Oxygen Powered	Y	Y	Y	Y
End Tidal CO ₂ Monitoring/Capnometry/ Capnography	Y	Y	Y	Y
Flow Restrictive Oxygen Powered Ventilatory Device	Y	Y	Y	Y
Gastric Decompression – NG/OG Tube Insertion	N	N	N	Y
Inspiratory Impedance Threshold Device	Y	Y	Y	Y
Intubation – Digital	N	N	N	Y
Intubation – Bougie Style Introducer	N	N	Y	Y
Intubation – Lighted Stylet	N	N	Y	Y
Intubation – Medication Assisted (non-paralytic)	N	N	N	N
Intubation – Medication Assisted (paralytics) (RSI)	N	N	N	N
Intubation – Maintenance with paralytics	N	N	N	N
Intubation – Nasotracheal	N	N	N	Y
Intubation – Orotracheal	N	N	Y	Y
Intubation – Retrograde	N	N	N	N

Skill (continued)	B	B-IV	I	P
Extubation	N	N	Y	Y
Obstruction – Direct Laryngoscopy	N	N	Y	Y
Oxygen Therapy - Humidifiers	Y	Y	Y	Y
Oxygen Therapy – Nasal Cannula	Y	Y	Y	Y
Oxygen Therapy – Non-rebreather Mask	Y	Y	Y	Y
Oxygen Therapy – Simple Face Mask	Y	Y	Y	Y
Oxygen Therapy – Venturi Mask	N	N	Y	Y
Peak Expiratory Flow Testing	N	N	Y	Y
Pulse Oximetry	Y	Y	Y	Y
Suctioning – Tracheobronchial	N	N	Y	Y
Suctioning – Upper Airway	Y	Y	Y	Y
Tracheostomy Maintenance - Airway management only	Y	Y	Y	Y
Tracheostomy Maintenance – Includes replacement	N	N	Y	Y
Ventilators – Automated Transport (ATV)	N	N	N	Y
CARDIOVASCULAR/CIRCULATORY SUPPORT				
Skill	B	B-IV	I	P
Cardiac Monitoring— Application of electrodes and data transmission	Y	Y	Y	Y
Cardiac Monitoring – Rhythm and diagnostic EKG interpretation	N	N	Y	Y
Cardiopulmonary Resuscitation (CPR)	Y	Y	Y	Y
Cardioversion – Electrical	N	N	N	Y
Carotid Massage	N	N	N	Y
Defibrillation – Automated/Semi-Automated (AED)	Y	Y	Y	Y
Defibrillation – Manual	N	N	Y	Y
External Pelvic Compression	Y	Y	Y	Y
Hemorrhage Control – Direct Pressure	Y	Y	Y	Y
Hemorrhage Control – Pressure Point	Y	Y	Y	Y
Hemorrhage Control – Tourniquet	Y	Y	Y	Y
MAST/Pneumatic Anti-Shock Garment	Y	Y	Y	Y
Mechanical CPR Device	Y	Y	Y	Y
Transcutaneous Pacing	N	N	Y	Y
Transvenous Pacing – Maintenance	N	N	N	N
Implantable Cardioverter/Defibrillator Magnet Use	N	N	N	N

Skill (continued)	B	B-IV	I	P
Therapeutic Induced Hypothermia (TIH) ¹	N	N	Y*	Y
Arterial Blood Pressure Indwelling Catheter – Maintenance	N	N	N	N
Invasive Intracardiac Catheters – Maintenance	N	N	N	N
Central Venous Catheter Insertion	N	N	N	N
Central Venous Catheter Maintenance/Patency/Use	N	N	Y	Y
Percutaneous Pericardiocentesis	N	N	N	N
IMMOBILIZATION				
Skill	B	B-IV	I	P
Spinal Immobilization – Cervical Collar	Y	Y	Y	Y
Spinal Immobilization – Long Board	Y	Y	Y	Y
Spinal Immobilization – Manual Stabilization	Y	Y	Y	Y
Spinal Immobilization – Seated Patient, etc.	Y	Y	Y	Y
Splinting – Manual	Y	Y	Y	Y
Splinting – Rigid	Y	Y	Y	Y
Splinting – Soft	Y	Y	Y	Y
Splinting – Traction	Y	Y	Y	Y
Splinting – Vacuum	Y	Y	Y	Y
INTRAVENOUS CANNULATION/FLUID ADMINISTRATION/FLUID MAINTENANCE				
Skill	B	B-IV	I	P
Blood/Blood By-Products Initiation (out of facility initiation)	N	N	N	N
Colloids - (Albumin, Dextran) – Initiation	N	N	N	N
Crystalloids (D ₅ W, LR, NS) – Initiation/Maintenance	N	Y	Y	Y
Intraosseous – Initiation	N	N	Y	Y
Medicated IV Fluids Maintenance – As Authorized in Appendix B	N	N	Y	Y
Peripheral – Excluding External Jugular - Initiation	N	Y	Y	Y
Peripheral – Including External Jugular – Initiation	N	N	Y	Y
Use of Peripheral Indwelling Catheter for IV medications (Does not include PICC)	N	Y	Y	Y

MEDICATION ADMINISTRATION - ROUTES				
Skill	B	B-IV	I	P
Aerosolized/Nebulized/Atomized	Y	Y	Y	Y
Buccal	Y	Y	Y	Y
Endotracheal Tube (ET)	N	N	Y	Y
Extra-abdominal umbilical vein	N	N	Y	Y
Intradermal	N	N	Y	Y
Intramuscular (IM)	Y	Y	Y	Y
Intranasal (IN)	N	Y	Y	Y
Intraosseous	N	N	Y	Y
Intravenous (IV) Piggyback	N	N	Y	Y
Intravenous (IV) Push	N	Y	Y	Y
Nasogastric	N	N	N	Y
Ophthalmic	N	N	Y	Y
Oral	Y	Y	Y	Y
Rectal	N	N	Y	Y
Subcutaneous	Y	Y	Y	Y
Sublingual	Y	Y	Y	Y
Topical	N	N	Y	Y
Use of Mechanical Infusion Pumps	N	N	Y	Y
MISCELLANEOUS				
Skill	B	B-IV	I	P
Aortic Balloon Pump Monitoring	N	N	N	N
Assisted Delivery	Y	Y	Y	Y
Blood Glucose Monitoring	Y	Y	Y	Y
Dressing/Bandaging	Y	Y	Y	Y
Esophageal Temperature Probe for TIH	N	N	Y*	Y
Eye Irrigation Noninvasive	Y	Y	Y	Y
Eye Irrigation Morgan Lens	N	N	Y	Y
Maintenance of Intracranial Monitoring Lines	N	N	N	N
Physical examination	Y	Y	Y	Y
Restraints - Verbal	Y	Y	Y	Y
Restraints - Physical	Y	Y	Y	Y
Restraints - Chemical	N	N	Y	Y
Urinary Catheterization - Initiation	N	N	N	Y

Urinary Catheterization – Maintenance	Y	Y	Y	Y
Venous Blood Sampling – Obtaining	N	Y	Y	Y

¹ Therapeutic Induced Hypothermia (TIH) –

1. Approved methods of cooling include:
 - a. Surface cooling methods including ice packs, evaporative cooling and surface cooling blankets or surface heat-exchange devices.
 - b. Internal cooling with the intravenous administration of cold crystalloids (4°C / 39°F)
2. Esophageal temperature probe allowed for monitoring core temperatures in patients undergoing TIH.
3. The medical director should work with the hospital systems to which their agencies transport in setting up a “systems” approach to the institution of TIH. Medical directors should not institute TIH without having receiving facilities that also have TIH programs to which to transport these patients.

APPENDIX B

PREHOSPITAL

FORMULARY OF MEDICATIONS ALLOWED TO BE ADMINISTERED

Additions to this medication formulary cannot be delegated unless a waiver has been granted as described in Sections 7.4 – 7.8 of these rules.

GENERAL				
Medications	B	B-IV	I	P
Over-the-counter-medications	Y	Y	Y	Y
Oxygen	Y	Y	Y	Y
ANTIDOTES				
Medications	B	B-IV	I	P
Atropine	N	N	Y*	Y
Calcium salt - Calcium chloride	N	N	N	Y
Calcium salt - Calcium gluconate	N	N	N	Y
Cyanide antidote	N	N	Y	Y
Glucagon	N	N	Y*	Y
Naloxone	N	Y	Y	Y
Nerve agent antidote	Y	Y	Y	Y
Pralidoxime	N	N	N	Y
Sodium bicarbonate	N	N	N	Y

BEHAVIORAL MANAGEMENT				
Medications	B	B-IV	I	P
Anti-Psychotic - Droperidol	N	N	N	N
Anti-Psychotic - Haloperidol	N	N	Y*	Y
Anti-Psychotic - Olanzapine	N	N	N	Y
Anti-Psychotic - Zispraside	N	N	N	Y
Benzodiazepine - Diazepam	N	N	Y*	Y
Benzodiazepine - Lorazepam	N	N	N	Y
Benzodiazepine - Midazolam	N	N	Y*	Y
Diphenhydramine	N	N	Y*	Y
CARDIOVASCULAR				
Medications	B	B-IV	I	P
Adenosine	N	N	Y*	Y
Amiodarone - bolus infusion only	N	N	Y*	Y
Aspirin	Y	Y	Y	Y
Atropine	N	N	Y*	Y
Calcium salt - Calcium chloride	N	N	N	Y
Calcium salt - Calcium gluconate	N	N	N	Y
Diltiazem - bolus infusion only	N	N	N	Y
Dopamine	N	N	N	Y
Epinephrine	N	N	Y*	Y
Lidocaine - bolus and continuous infusion	N	N	Y*	Y
Magnesium sulfate - bolus infusion only	N	N	N	Y
Morphine sulfate	N	N	Y*	Y
Nitroglycerin – sublingual (patient assisted)	Y*	Y*	Y	Y
Nitroglycerin – sublingual (tablet or spray)	N	N	Y	Y
Nitroglycerin – topical paste	N	N	Y*	Y
Sodium bicarbonate	N	N	Y*	Y
Vasopressin	N	N	Y*	Y
Verapamil - bolus infusion only	N	N	N	Y
DIURETICS				
Medications	B	B-IV	I	P
Butanamide	N	N	N	Y
Furosemide	N	N	Y*	Y

Medications (continued)	B	B-IV	I	P
Mannitol (trauma use only)	N	N	N	Y
ENDOCRINE AND METABOLISM				
Medications	B	B-IV	I	P
IV Dextrose	N	Y	Y	Y
Glucagon	N	N	Y	Y
Oral glucose	Y	Y	Y	Y
Thiamine	N	N	N	Y
GASTROINTESTINAL MEDICATIONS				
Medications	B	B-IV	I	P
Anti-nausea - Droperidol	N	N	N	N
Anti-nausea - Metoclopramide	N	N	Y*	Y
Anti-nausea - Ondansetron	N	N	Y*	Y
Anti-nausea - Prochlorperazine	N	N	N	Y
Anti-nausea - Promethazine	N	N	Y*	Y
Decontaminant - Activated charcoal	Y	Y	Y	Y
Decontaminant – Sorbitol	Y	Y	Y	Y
PAIN MANAGEMENT				
Medications	B	B-IV	I	P
Anesthetic – Lidocaine (for intraosseous needle insertion)	N	N	Y	Y
Benzodiazepine - Diazepam	N	N	Y*	Y
Benzodiazepine - Lorazepam	N	N	Y*	Y
Benzodiazepine - Midazolam	N	N	N	Y
General - Nitrous oxide	N	N	Y*	Y
Narcotic Analgesic - Fentanyl	N	N	Y*	Y
Narcotic Analgesic - Hydromorphone	N	N	N	Y
Narcotic Analgesic - Morphine sulfate	N	N	Y*	Y
Ophthalmic anesthetic – Opthaine	N	N	Y	Y
Ophthalmic anesthetic –Tetracaine	N	N	Y	Y
Topical Anesthetic - Benzocaine spray	N	N	N	Y
Topical Anesthetic - Lidocaine jelly	N	N	N	Y

RESPIRATORY AND ALLERGIC REACTION MEDICATIONS				
Medications	B	B-IV	I	P
Antihistamine - Diphenhydramine	N	N	Y*	Y
Bronchodilator – Anticholinergic – Atropine (aerosol/nebulized)	N	N	Y*	Y
Bronchodilator – Anticholinergic - Ipratropium	N	N	Y*	Y
Bronchodilator - Beta agonist – Albuterol	Y*	Y*	Y*	Y
Bronchodilator - Beta agonist - L-Albuterol	N	N	Y*	Y
Bronchodilator - Beta agonist - Metaproterenol	N	N	Y*	Y
Corticosteroid - Dexamethasone	N	N	N	Y
Corticosteroid - Methylprednisolone	N	N	Y*	Y
Corticosteroid – Prednisone	N	N	N	Y
Epinephrine	N	N	Y*	Y
Epinephrine Auto-Injector	Y	Y	Y	Y
Magnesium Sulfate—bolus infusion only	N	N	N	Y
Racemic Epinephrine	N	N	Y*	Y
Short Acting Bronchodilator meter dose inhalers (MDI) (Patient assisted)	Y*	Y*	Y*	Y
Short Acting Bronchodilator meter dose inhalers (MDI)	N	N	Y*	Y
Terbutaline	N	N	N	Y
SEIZURE MANAGEMENT				
Medications	B	B-IV	I	P
Benzodiazepine - Diazepam	N	N	Y*	Y
Benzodiazepine - Lorazepam	N	N	Y*	Y
Benzodiazepine - Midazolam	N	N	Y*	Y
OB -associated – Magnesium sulfate – bolus infusion only	N	N	N	Y
VACCINES				
Medications	B	B-IV	I	P
Post-exposure, employment, or pre-employment related - Hepatitis B	N	N	N	Y
Post-exposure, employment, or pre-employment related - Tetanus	N	N	N	Y
Post-exposure, employment, or pre-employment related - Influenza	N	N	N	Y
Post-exposure, employment, or pre-employment related - PPD placement	N	N	N	Y

Medications (continued)	B	B-IV	I	P
Public Health Related - Vaccine administration in conjunction with County Public Health Departments and local EMS medical direction, after demonstration of proper training, will be authorized for public health vaccination efforts and pandemic planning exercises.	N	N	Y	Y
MISCELLANEOUS				
Medications	B	B-IV	I	P
Analgesic Sedative – Etomidate	N	N	N	N
Benzodiazepine - Midazolam for TIH	N	N	Y*	Y
Lidocaine - bolus for intubation of head-injured patients	N	N	Y*	Y
Narcotic Analgesic - Fentanyl for TIH	N	N	Y*	Y
Hemostatic agents - topical	Y	Y	Y	Y

Technology- and Pharmacology- Dependent Patients

The transport of patients with continuous intravenously administered medications and nutritional support, previously prescribed by licensed health care workers and typically managed day-to-day at their residence by either the patient or caretakers, shall be allowed. This will simplify transport options for patients that currently may require specialized critical care transport teams under existing Rule. The EMS provider is not authorized to manage, alter, or interfere with these patient medication/nutrition systems except after direct contact with medical control, and where cessation and/or continuation of medication pose a threat to the safety and well-being of the patient.

Procedural Sedation

Procedural sedation, as defined by the combination of intravenous agents such as benzodiazepines and/or narcotics for the planned purpose of facilitating the performance of a procedure is not an authorized EMS practice in Colorado.

INTERFACILITY TRANSPORT

The EMS Medical Director, in collaboration with the transferring facility’s medical director, should have protocols in place to ensure the appropriate level of care is available during interfacility transport and the transporting EMT may decline to transport any patient he/she believes requires a level of care beyond his/her capabilities.

Inter-facility transport typically involves three types of patients:

1. Those patients whose safe transport can be accomplished by ambulance, under the care of an EMT-Basic, EMT-Intermediate, or EMT-Paramedic, within the “acts allowed” prescribed by Rule 500.

2. Those patients whose safe transport can be accomplished by ambulance, under the care of an EMT-Paramedic, but may require skills to be performed or medications to be administered that are outside the “acts allowed” prescribed by Rule 500, but have been approved through waiver granted by the BME.
3. Those patients whose safe transport requires the skills and expertise of a critical care transport team under the care of an experienced critical care practitioner.

The hemodynamically unstable patient (typically from an Intensive Care setting) who requires special monitoring (i.e. CVP, ICP), multiple cardioactive/vasoactive medications, or specialized critical care equipment (i.e. intra-aortic balloon pump) should remain under the care of an experienced critical care practitioner and every attempt should be made to transport that patient while maintaining the appropriate level of care. The capabilities of the institution, the capabilities of the transporting agency and most importantly, the well-being of the patient, should be considered when making transport decisions.

Unless otherwise noted, these indicate hospital/facility initiated interventions and/or medications.

APPENDIX C

INTERFACILITY TRANSPORT - ONLY **MEDICAL SKILLS AND ACTS ALLOWED**

Additions to these medical skills and acts allowed cannot be delegated unless a waiver has been granted as described in Sections 7.4 – 7.8 of these rules.

The following medical skills and acts are approved for interfacility transport of patients, with the requirements that the medical skill or intervention must have been initiated in a medical facility under the direct order and supervision of licensed medical providers, and are NOT authorized for field initiation. EMS continuation and monitoring of these interventions is to be allowed with any alterations in the therapy requiring direct online medical control. The EMS provider should continue the same medical standards of care with regards to patient monitoring that was initiated in the medical care setting.

It is understood that these skills or interventions may not be addressed in the National Standard EMT-Basic, EMT-Intermediate or EMT-Paramedic Curricula and may not be addressed in any future national education standards that may replace the current National Standard Curriculum. As such, it is the joint responsibility of the medical director and individuals performing these skills, to obtain appropriate additional training needed to safely and effectively utilize and monitor these interventions in the interfacility transport environment.

CARDIOVASCULAR/CIRCULATORY SUPPORT				
Skill	B	B-IV	I	P
Aortic Balloon Pump Monitoring	N	N	N	N
Chest Tube Monitoring	N	N	N	Y
Central Venous Pressure Monitor Interpretation	N	N	N	N

APPENDIX D

INTERFACILITY TRANSPORT - ONLY
FORMULARY OF MEDICATIONS ALLOWED TO BE ADMINISTERED

Additions to this medical formulary cannot be delegated unless a waiver has been granted as described in Sections 7.4 – 7.8 of these rules.

The following formulary of medications are approved for interfacility transport of patients, with the requirements that the intervention must have been initiated in a medical facility under the direct order and supervision of licensed medical providers, and are NOT authorized for field initiation. EMS continuation and monitoring of these interventions is to be allowed with any alterations in the therapy requiring direct online medical control. The EMS providers should continue the same medical standards of care with regards to patient monitoring that was initiated in the medical care setting.

It is understood that these skills or interventions may not be addressed in the National Standard EMT-Basic, EMT-Intermediate or EMT-Paramedic Curricula and may not be address in any future national education standards that may replace the current National Standard Curriculum. As such, it is the joint responsibility of the medical director and individuals administering these medications, to obtain appropriate additional training needed to safely and effectively utilize and monitor these interventions in the interfacility transport environment.

CARDIOVASCULAR				
Medications	B	B-IV	I	P
Anti-arrhythmic – Amiodarone - continuous infusion	N	N	Y	Y
Anti-arrhythmic - Lidocaine - continuous infusion	N	N	Y	Y
Anticoagulant - Glycoprotein inhibitors	N	N	N	Y
Anticoagulant - Heparin (unfractionated)	N	N	N	Y
Anticoagulant - Low Molecular Weight Heparin (LMWH)	N	N	N	Y
Diltiazem	N	N	N	Y
Dobutamine	N	N	N	Y
Nitroglycerin, intravenous	N	N	N	Y
HIGH RISK OBSTETRICAL PATIENTS				
Medications	B	B-IV	I	P
Magnesium sulfate	N	N	N	Y
Oxytocin - infusion	N	N	N	Y

INTRAVENOUS SOLUTIONS				
Medications	B	B-IV	I	P
Monitoring and maintenance of hospital/medical facility initiated crystalloids	N	Y	Y	Y
Monitoring and maintenance of hospital/medical facility initiated colloids (non-blood component) infusions	N	N	Y	Y
Monitoring and maintenance of hospital/medical facility initiated blood component infusion	N	N	N	Y
Initiate hospital/medical facility supplied blood component infusions	N	N	N	Y
Total parenteral nutrition (TPN) and/or vitamins	N	N	Y	Y
MISCELLANEOUS				
Medications	B	B-IV	I	P
Antibiotic infusions	N	N	Y	Y
Antidote infusion – Sodium bicarbonate infusion	N	N	N	Y
Electrolyte infusion – Magnesium sulfate	N	N	N	Y
Electrolyte infusion – Potassium chloride	N	N	N	Y
Insulin	N	N	N	Y
Mannitol	N	N	N	Y
Methylprednisolone – infusion	N	N	N	Y

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