

North Carolina Medical Board Approved Medications for Credentialed EMS Personnel

EMS personnel at any level who administer medications must do so within an EMS system that provides medical oversight. Personnel must follow written treatment protocols and must complete appropriate medical education. All EMS System protocols and policies must be reviewed and approved by the Medical Director of the Office of EMS.

All items highlighted in “red” are required by NCCEP in all systems with EMS personnel credentialed at the specified level. Specialty Care (SCTP) required items are not listed here, as they can be found on the Specialized Ambulance Protocol Summary (SAPS) form.

Medications	EMR	EMT	AEMT	MEDIC
ACE inhibitors				X
Acetaminophen	X	X	X ¹⁵	X
Adenosine				X
Aminophylline				X
Amiodarone				X
Anti-arrhythmic				X ¹²
Antibiotics				X
Anti-emetic preparations				X
Antivirals				X
Aspirin		X	X	X
Atropine	X ⁴	X ⁴	X ⁴	X
Barbiturates				X
Benzodiazepine preparations				X ¹⁴
Beta agonist preparations		X ²	X	X
Beta blockers				X ¹³
Bretylium				X
C1 Esterase-Inhibitors				X
Calcium channel blockers				X ¹³
Calcium chloride/gluconate				X
Charcoal		X	X	X
Clonidine				X
Clopidogrel				X
CroFab (Crotalidae Polyvalent Immune Fab)				X ⁸
Crystalloid solutions			X	X
Cyanide poisoning antidote kit				X
Digoxin				X
Diphenhydramine	X ³	X ³	X	X
Dobutamine				X
Dopamine				X
Droperidol				X
Epinephrine	X ¹	X ¹	X	X
Etomidate				X
Flumazenil				X
Furosemide				X
Glucagon			X	X
Glucose, oral	X	X	X	X
Glucose solutions			X	X
Haloperidol				X
Heparin (unfractionated and low molecular weight)				X

Medications	EMR	EMT	AEMT	MEDIC
Histamine 2 blockers			X	X
Hydroxocobalamin				X
Immunizations			X ⁶	X ⁶
Insulin				X
Ipratropium			X	X
Isoproterenol				X
Ketamine				X ⁷
Levetiracetam				X
Lidocaine				X
Magnesium sulfate				X
Mannitol				X
Methylene blue				X
Milrinone				X
N-acetylcysteine				X
Narcotic analgesics				X
Narcotic antagonists	X ^{9,10}	X ^{9,10}	X	X
Nasal spray decongestant		X	X	X
Nesiritide				X
Nitroglycerin		X ²	X	X
Nitroprusside sodium				X
Nitrous oxide				X
Non-prescription medications		X	X	X
Non-steroidal anti-inflammatory		X	X ¹⁵	X
Norepinephrine				X
Octreotide				X
Oxygen	X ⁵	X ⁵	X ⁵	X ⁵
Oxytocin				X
Paralytic agents				X ⁷
Phenothiazine preparations				X
Phenylephrine				X
Phenytoin preparations				X
Plasma protein fraction				X
Platelet g-II/IIIa inhibitors				X
Potassium chloride				X
Pralidoxime	X ⁴	X ⁴	X ⁴	X
Procainamide				X
Procaine				X
Proparacaine				X
Propofol				X ⁸
Proton pump inhibitors				X
Sodium bicarbonate				X
Steroid preparations				X
Thiamine			X	X
Thrombolytic agents				X
Topical hemostatic agents	X	X	X	X
Total Parenteral Nutrition				X
Tranexamic Acid (TXA)				X ¹¹
Tuberculosis skin test			X ⁶	X ⁶
Valproic acid				X
Vasopressin			X	X
Vasopressor				X ¹⁶

Medications	EMR	EMT	AEMT	MEDIC
Whole blood and components				X
Ziprasidone				X

¹ EMR and EMT use of epinephrine is limited to the treatment anaphylaxis and may be administered only by auto injector, unless approved by EMS System Medical Director and OEMS.

² EMT use of beta-agonists and nitroglycerine is limited to patients who currently are prescribed the medication. EMTs may administer these medications from EMS supplies. EMT use of beta-agonists may be through any inhaled method of medication administration.

³ EMR/EMT administration of diphenhydramine is limited to the oral route.

⁴ As a component of preparedness for domestic terrorism, EMS personnel, public safety officers, and other first responders recognized by the EMS system, may carry, self-administer, or administer to a patient atropine and/or pralidoxime, based on written protocols and medical direction. All personnel except for Paramedics must administer these medications by an auto injector.

⁵ Administration of oxygen does not require medical direction.

⁶ Administration of immunizations and TB skin tests are not limited to public health initiatives.

⁷ Can only be used as induction agent for RSI or for post intubation sedation.

⁸ Can only be used for interfacility transport where infusion has already been started at transferring facility. **EMS units cannot carry Propofol or CroFab. This medication must be provided by the transferring hospital.**

⁹ FR, EMR, and EMT administration of Naloxone is limited to the intra-nasal (IN), intra-muscular (IM), and auto-injector routes.

¹⁰ First Responder agencies are allowed to administer Naloxone with the following requirements:

- a. They must administer the Naloxone under the medical oversight of the County EMS Medical Director, and be incorporated into the respective EMS System in which they are administering the Naloxone.
- b. They must receive appropriate training and continuing education as approved by the County EMS Medical Director.
- c. The Naloxone must be administered as part of a protocol and procedure approved by the County EMS Medical Director, and the NC Office of EMS.
- d. All administration of Naloxone must be reviewed by the EMS Peer Review/Quality Management Committee of the EMS System, which functions under the supervision of the local County EMS Medical Director.

¹¹ For an EMS System to use Tranexamic Acid (TXA), they must submit for approval by the OEMS State Medical Director a signed letter from any Trauma Centers that would be the recipient of the patient that the destination Trauma Center agrees with its use and will give the 2nd required dose of Tranexamic Acid (TXA).

¹² All Paramedic systems must carry some form of anti-arrhythmic agent. This must either be amiodarone, lidocaine, **or** procainamide.

¹³ Paramedic systems must carry either a calcium channel blocker **or** beta-blocker.

¹⁴ All Paramedic systems must carry some form of injectable benzodiazepine.

¹⁵ EMT-Intermediate/AEMT systems must carry either acetaminophen **or** a non-steroidal anti-inflammatory.

¹⁶ All Paramedic systems must carry an approved vasopressor. This must either be dobutamine, dopamine, epinephrine, norepinephrine, phenylephrine, **or** vasopressin.

North Carolina Medical Board Approved Skills for Credentialed EMS Personnel

EMS personnel performing these skills must do so within an EMS system. Personnel must follow written treatment protocols and must complete appropriate medical education. All EMS System protocols and policies must be reviewed and approved by the Medical Director of the Office of EMS.

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Skills	EMR	EMT	AEMT	MEDIC
12-Lead ECG Acquisition & Transmission		X	X	X
12-Lead ECG Interpretation				X
15-Lead ECG Acquisition				X
Arterial Access - Blood Draw				X
Arterial Line maintenance				X
Blind Insertion Airway Device (BIAD)		X ¹	X	X
Capnography (Waveform)		X ⁶	X ⁶	X ⁶
Carbon Monoxide Measurement (non-invasive)	X	X	X	X
Cardiac Monitoring		X ⁴	X ⁴	X
Cardiac Pacing				X
Cardiopulmonary Resuscitation	X	X	X	X
Cardioversion				X
Carotid Massage				X
Central Venous Pressure Line Maintenance				X
Chest Compression-External Device		X	X	X
Chest Decompression-Needle				X
Chest Tube Maintenance				X
Childbirth	X	X	X	X
Cricothyrotomy-Needle				X
Cricothyrotomy-Surgical				X ⁵
Decontamination	X	X	X	X
Defibrillation-Automated	X	X	X	X
Defibrillation-Manual				X
Direct Laryngoscopy			X	X
Endotracheal Tube Introducer			X	X
Epidural Catheter Maintenance				X
Foreign Body Airway Obstruction	X	X	X	X
Gastric Intubation		X ³	X ³	X
Glucose Measurement	X	X	X	X
Hemostatic Agent	X	X	X	X
Injections – Subcutaneous and Intramuscular		X ²	X	X
Intra-Ventricular Catheter Maintenance				X
Intubation - Nasotracheal			X	X
Intubation - Orotracheal			X ⁶	X ^{6,7}
Intubation Confirmation - Capnometry (color)			X	X
Intubation Confirmation - Esophageal Bulb			X	X
Medication Administration	X ²	X ²	X ²	X ²
Nebulizer Inhalation Therapy		X	X	X

Skills	EMR	EMT	AEMT	MEDIC
Non-Invasive Positive Pressure Ventilation		X	X	X
Orthostatic Blood Pressure	X	X	X	X
Oxygen Administration	X	X	X	X
Patient Assessment	X	X	X	X
Pulse Oximetry	X	X	X	X
Rapid Sequence Induction (RSI)				X ^{5,6}
Reperfusion Checklist	X	X	X	X
Respirator Operation		X	X	X
Restraints		X	X	X
Spinal Motion Restriction	X	X	X	X
Splinting	X	X	X	X
Stroke Screen	X	X	X	X
Suction	X	X	X	X
Swan-Ganz Catheter maintenance				X
Taser Probe Removal	X	X	X	X
Temperature Measurement	X	X	X	X
Tourniquet Application	X	X	X	X
Tracheostomy Tube Change			X	X
Urinary Catheterization				X
Venous Access-Blood Draw			X	X
Venous Access-Existing catheters				X
Venous Access-Femoral Line				X
Venous Access-Intraosseous			X	X
Venous Access-Peripheral			X	X
Ventilator Operation		X ⁸	X ⁸	X
Wound Care	X	X	X	X

¹ EMTs using blind insertion airway devices must be functioning in EMS systems with medical direction and written treatment protocols.

² EMS personnel at any level who administer medications must do so within an EMS system that provides medical oversight. Personnel must follow written treatment protocols and must complete appropriate medical education. All EMS System protocols and policies must be reviewed and approved by the Medical Director of the Office of EMS. The approved medication list is found at the beginning of this document. The administration of oxygen does not require medical direction.

³ Gastric tube insertion may be performed only when utilized in conjunction with a blind insertion airway device.

⁴ EMT and AEMT may use the cardiac monitor for vital sign monitoring and EKG transmission.

⁵ Systems performing rapid sequence induction must have the ability to perform surgical cricothyrotomy. Commercial cricothyrotomy or tracheostomy kits that create an airway comparable to a surgical cricothyrotomy are acceptable.

⁶ Capnometry or capnography is mandatory with all methods of intubation. Continuous capnography (EtCO₂) is strongly recommended for the monitoring of all patients with a BIAD and mandatory with monitoring of an endotracheal tube.

⁷ Pediatric intubation is an optional skill/procedure.

⁸ Ventilator patients may be transported by EMT/AEMT when all of the following conditions are met:

- Patient is receiving home (or skilled nursing) ventilator therapy.
- The ventilator is portable and can continue to ventilate the patient during transport.
- The patient is accompanied by a non-EMS adult (from either the home or facility) who is knowledgeable, capable, and willing to maintain the ventilator during the EMS transport.
- While in transit, the patient is monitored using pulse oximetry.

-As of 1 January 2017, NCOEMS will be transitioning all EMT-Intermediates to the Advanced EMT Level in order to align with the National Education Standards. The EMT-I and AEMT will have the same scope of practice. All EMR personnel performing skills beyond the National Education Standards, must do so under approved medical direction.

-EMD personnel are responsible for:

- 1) Pre-arrival instructions to callers
- 2) Determining and dispatching appropriate EMS resources
- 3) All EMD skills must be performed in EMS systems with medical oversight and written EMS protocols