

## North Carolina Medical Board Approved Medications for Credentialed EMS Personnel

**EMS personnel at any level who administer medications must do so with medical oversight. Personnel must complete appropriate medical education. All EMS System and SCTP protocols, policies and procedures 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 <sup>15</sup>	X
Adenosine				X
Aminophylline				X
Amiodarone				X
Anti-arrhythmic				X <sup>12</sup>
Antibiotics			X	X
Anti-emetic preparations			X	X
Antipsychotic (Typical and Atypical)		X <sup>19</sup>	X <sup>20</sup>	X <sup>20</sup>
Antivirals			X	X
Aspirin	X	X	X	X
Atropine	X <sup>4</sup>	X <sup>4</sup>	X <sup>4</sup>	X
Barbiturates				X
Benzodiazepine preparations				X <sup>14</sup>
Beta agonist preparations		X <sup>2</sup>	X	X
Beta blockers				X <sup>13</sup>
Bretylium				X
C1 Esterase-Inhibitors				X
Calcium channel blockers				X <sup>13</sup>
Calcium chloride/gluconate				X
Calcium Paste		X	X	X
Charcoal		X	X	X
Clonidine				X
Clopidogrel				X
CroFab (Crotalidae Polyvalent Immune Fab)				X <sup>8</sup>
Crystalloid solutions			X	X
Cyanide poisoning antidote kit				X
Digoxin				X
Diphenhydramine	X <sup>3</sup>	X <sup>3</sup>	X	X
Diuretics				X
Dobutamine				X
Dopamine				X
Droperidol				X
Epinephrine	X <sup>1</sup>	X <sup>1</sup>	X	X
Etomidate				X
Flumazenil				X
Glucagon		X	X	X
Glucose, oral	X	X	X	X
Glucose solutions			X	X
Haloperidol			X	X
Heparin (unfractionated and low molecular weight)				X
Histamine 2 blockers			X	X

Medications	EMR	EMT	AEMT	MEDIC
Hydroxocobalamin				X
Immunizations		X <sup>21</sup>	X <sup>6</sup>	X <sup>6</sup>
Insulin				X
Ipratropium			X	X
Isoproterenol				X
Ketamine				X <sup>7</sup>
Levetiracetam				X
Lidocaine			X <sup>18</sup>	X
Magnesium sulfate			X	X
Mannitol				X
Methylene blue				X
Milrinone				X
Monoclonal Antibodies			X	X
N-acetylcysteine				X
Narcotic analgesics				X
Narcotic antagonists	X <sup>9,10</sup>	X <sup>9,10</sup>	X	X
Nasal spray decongestant		X	X	X
Nesiritide				X
Nitroglycerin		X <sup>2</sup>	X	X
Nitroprusside sodium				X
Nitrous oxide		X	X	X
Non-prescription medications		X	X	X
Non-steroidal anti-inflammatory		X	X <sup>15</sup>	X
Norepinephrine				X
Octreotide				X
Oxygen	X <sup>5</sup>	X <sup>5</sup>	X <sup>5</sup>	X <sup>5</sup>
Oxytocin				X
Paralytic agents				X <sup>17</sup>
Phenothiazine preparations				X
Phenylephrine				X
Phenytoin preparations				X
Plasma protein fraction				X
Platelet g-II/IIIa inhibitors				X
Potassium chloride				X
Pralidoxime	X <sup>4</sup>	X <sup>4</sup>	X <sup>4</sup>	X
Procainamide				X
Procaine				X
Proparacaine				X
Propofol				X <sup>8</sup>
Proton pump inhibitors				X
Sodium bicarbonate				X
Steroid preparations			X	X
Thiamine			X	X
Thrombolytic agents				X
Topical hemostatic agents	X	X	X	X
Total Parenteral Nutrition				X
Tranexamic Acid (TXA)			X	X <sup>11</sup>
Tuberculosis skin test			X <sup>6</sup>	X <sup>6</sup>
Valproic Acid				X
Vasopressin			X	X
Vasopressor				X <sup>16</sup>
Whole blood and components				X
Ziprasidone				X

- <sup>1</sup> EMR and EMT use of epinephrine is limited to the treatment of anaphylaxis and may be administered only by auto injector, unless approved by EMS System Medical Director and OEMS.
- <sup>2</sup> EMT use of beta-agonists and nitroglycerine is limited to patients who currently are prescribed the medication unless approved by the EMS System Medical Director and OEMS as part of the expanded scope. EMTs may administer these medications from EMS supplies.
- <sup>3</sup> EMR/EMT administration of diphenhydramine is limited to the oral route.
- <sup>4</sup> 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.
- <sup>5</sup> Administration of oxygen does not require medical direction.
- <sup>6</sup> Administration of immunizations and TB skin tests are not limited to public health initiatives.
- <sup>7</sup> Ketamine use is restricted to programs that have been approved by the OEMS State Medical Director. It can be used as an induction or post intubation sedation agent in approved DAI programs. Use outside of DAI programs must meet all the requirements outlined in Medical Policy 2 'Ketamine Program Requirements'.
- <sup>8</sup> Propofol use is restricted to programs that have been approved by the OEMS State Medical Director. EMS Systems and SCTP's must submit a policy and education plan to the OEMS prior to approval. EMS personnel cannot initiate Propofol, it can only be used for interfacility transport where infusion has already been started at transferring facility. **EMS units cannot stock Propofol or CroFab. This medication must be provided by the transferring hospital.**
- <sup>9</sup> FR, EMR, and EMT administration of Naloxone is limited to the intra-nasal (IN), intra-muscular (IM), and auto-injector routes.
- <sup>10</sup> First Responders (FR) who administer Naloxone must do so under the medical oversight of the County EMS Medical Director, following protocols and procedures approved by the OEMS State Medical Director. FR administration must be monitored by the EMS Systems peer review program.
- <sup>11</sup> 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 2<sup>nd</sup> required dose of Tranexamic Acid (TXA).
- <sup>12</sup> All Paramedic systems must carry some form of anti-arrhythmic agent. This must either be amiodarone, lidocaine, **or** procainamide.
- <sup>13</sup> Paramedic systems must carry either a calcium channel blocker **or** beta-blocker.
- <sup>14</sup> All Paramedic systems must carry some form of injectable benzodiazepine.
- <sup>15</sup> AEMT systems must carry either acetaminophen **or** a non-steroidal anti-inflammatory.
- <sup>16</sup> All Paramedic systems must carry an approved vasopressor. This must either be dobutamine, dopamine, epinephrine, norepinephrine, phenylephrine, **or** vasopressin.
- <sup>17</sup> Paralytic agent use is restricted to Drug Assisted Intubation (DAI) programs approved by the OEMS State Medical Director. They require the submission of; signed NCCEP DAI policy by local medical director, unaltered NCCEP DAI protocols, training documentation, and process for peer review of cases. All DAI must have an EMS Airway Evaluation form completed and signed by local medical director in accordance with the NCCEP DAI policy. Systems utilizing must submit monthly airway forms and cases to the OEMS for review.
- <sup>18</sup> AEMT administration of Lidocaine is allowed for analgesic use only.
- <sup>19</sup> EMTs may only administer antipsychotic medications orally and if the patient has a current prescription.
- <sup>20</sup> Long-acting antipsychotics may only be used in pilot programs that are approved by the OEMS State Medical Director in conjunction with the State Mental Health Medical Director.
- <sup>21</sup> EMTs may administer immunizations in conjunction with public health initiatives.

## North Carolina Medical Board Approved Skills for Credentialed EMS Personnel

**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.**

Skills	EMR	EMT	AEMT	MEDIC
12-Lead ECG Acquisition & Transmission		X	X	X
12-Lead ECG Interpretation				X
15-Lead ECG Acquisition				X
Airway Adjuncts (NPA/OPA)	X	X	X	X
Arterial Access - Blood Draw				X
Arterial Line maintenance				X
Blind Insertion Airway Device (BIAD)	X <sup>1</sup>	X <sup>1</sup>	X	X
Capnography (Waveform)	X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>	X <sup>6</sup>
Carbon Monoxide Measurement (non-invasive)	X	X	X	X
Cardiac Monitoring		X <sup>4</sup>	X <sup>4</sup>	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	X
Chest Decompression-Needle			X <sup>11</sup>	X
Chest Tube Maintenance				X
Childbirth	X	X	X	X
Cricothyrotomy-Needle				X
Cricothyrotomy-Surgical				X <sup>5</sup>
Decontamination	X	X	X	X
Defibrillation-Automated	X	X	X	X
Defibrillation-Manual			X <sup>12</sup>	X
Direct Laryngoscopy			X	X
Drug Assisted Intubation (DAI)				X <sup>5,6</sup>
Endotracheal Tube Introducer			X	X
Epidural Catheter Maintenance				X
Foreign Body Airway Obstruction	X	X	X	X
Gastric Intubation		X <sup>3</sup>	X <sup>3</sup>	X
Glucose Measurement	X	X	X	X
Hemostatic Agent	X	X	X	X
Injections – Subcutaneous and Intramuscular		X <sup>2</sup>	X	X
Intra-Ventricular Catheter Maintenance				X
Intubation - Nasotracheal			X	X
Intubation - Orotracheal			X <sup>6</sup>	X <sup>6,7</sup>
Intubation Confirmation - Capnometry (color)			X	X
Medication Administration	X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>	X <sup>2</sup>
Nebulizer Inhalation Therapy		X	X	X
Non-Invasive Positive Pressure Ventilation	X <sup>9</sup>	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

Skills	EMR	EMT	AEMT	MEDIC
Reperfusion Checklist	X	X	X	X
Respirator Operation		X	X	X
Restraints		X	X	X
Specimen Collection		X	X	X
Spinal Motion Restriction	X	X	X	X
Splinting	X	X	X	X
Stroke Screen	X	X	X	X
Suction-Basic	X	X	X	X
Suction-Advanced			X <sup>10</sup>	X <sup>10</sup>
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 <sup>8</sup>	X <sup>8</sup>	X
Wound Care	X	X	X	X

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

<sup>2</sup> EMS personnel educated in approved programs, credentialed by the OEMS, and functioning under physician medical oversight may perform acts and administer intravenous fluids and medications as allowed by the North Carolina Medical Board pursuant to G.S. 143-514. The administration of oxygen does not require medical direction.

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

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

<sup>5</sup> Systems performing drug assisted intubation (DAI) must have the ability to perform surgical cricothyrotomy. Commercial cricothyrotomy or tracheostomy kits that create an airway comparable to a surgical cricothyrotomy are acceptable.

<sup>6</sup> End-tidal (EtCO<sub>2</sub>) monitoring is mandatory following placement of an endotracheal tube. EtCO<sub>2</sub> monitoring is mandatory following placement of a BIAD once available on scene.

<sup>7</sup> Pediatric intubation is an optional skill/procedure.

<sup>8</sup> Ventilator patients may be transported by EMT/AEMT when all 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.

<sup>9</sup> Bag Valve Mask ONLY

<sup>10</sup> For a patient currently being assisted by an airway adjunct such as a naso-tracheal tube, endotracheal tube, BIAD, tracheostomy tube or a cricothyrotomy tube.

<sup>11</sup> Use of needle chest decompression at the AEMT level is for traumatic arrest only.

<sup>12</sup> AEMT use of manual defibrillation is for pulseless arrest only.

-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.