



# North Carolina College of Emergency Physicians Standards for EMS Medications and Skills Use



- B.** The baseline medications and skills required in all systems and Specialty Care Transport Programs) with EMS personnel credentialed at the specified level.
- S.** The equipment required in all Specialty Care Transport Programs. All Air Medical Specialty Care Transport Programs and dedicated Neonatal Transport Programs are required to carry and maintain equipment and medications specific to each mission, as defined by medical control and OEMS approved protocols.
- O.** These medications and skills are optional.

This medication list is based on the medications which are used in the NCCEP Protocol documents. This list does not include all of the medications which are approved for use by the NC Medical Board. The NC Medical Board Medication and Skills Formulary can be found online at [www.NCEMS.org](http://www.NCEMS.org) under the OEMS regulations section of the website.

EMS Medications	MR	EMT	EMT-I	EMT-P
Acetaminophen	O	O	B <sup>9</sup>	B
Adenosine				B
Beta-agonists (Albuterol, Levalbuterol, etc.)		B <sup>6</sup>	B	B
Amiodarone				B <sup>1</sup>
Anti-emetic preparations				B
Aspirin		B <sup>6</sup>	B	B
Atropine	O <sup>1</sup>	O <sup>1</sup>	O <sup>1</sup>	B
Beta Blockers (Metoprolol, etc.)				B <sup>8</sup>
Benzodiazepine (Diazepam, Midazolam, etc.)				B <sup>2</sup>
Calcium Channel Blockers (Diltiazem, etc)				B <sup>8</sup>
Calcium chloride/gluconate				B
Charcoal		O	O	O
Crystalloid solutions (Normal Saline, etc)			B	B
Diphenhydramine		O <sup>2</sup>	B	B
Dobutamine				S, O
Dopamine				B
Epinephrine	B <sup>5,6</sup>	B <sup>5,6</sup>	B	B
Etomidate				O
Furosemide				O
Glucagon			B	B
Glucose solutions			B	B
Haloperidol				O
Histamine 2 Blockers (Ranitidine, Cimetidine)			O	O
Ipratropium			O	O
Ketamine				O <sup>4</sup>
Lidocaine				B <sup>1</sup>
Magnesium sulfate				S, O
Metoclopramide				O
Methylprednisolone				S, O
Narcotic analgesic				B
Naloxone		O <sup>2</sup>	B	B



# North Carolina College of Emergency Physicians Standards for EMS Medications and Skills Use



EMS Medications	MR	EMT	EMT-I	EMT-P
Nasal Spray Decongestant		O <sup>2</sup>	O	O
Nitroglycerin		B <sup>6</sup>	B	B
Nitrous Oxide				O
Nitroprusside sodium				O
Non-steroidal anti-inflammatory		O <sup>2</sup>	B <sup>9</sup>	B
Oxygen	B	B	B	B
Oxytocin				S, O
Potassium chloride				S, O
Pralidoxime	O <sup>1</sup>	O <sup>1</sup>	O <sup>1</sup>	O
Prednisone				O
Procainamide				S, B <sup>1</sup>
Propofol				O <sup>3</sup>
Sodium bicarbonate				B
Steroid preparation				B
Succinylcholine and/or Rocuronium				S, O
Vasopressin			O	O
Vecuronium				O
Ziprasidone				O



# North Carolina College of Emergency Physicians Standards for EMS Medications and Skills Use



EMS Skills	MR	EMT	EMT-I	EMT-P
1.12-Lead Electrocardiogram (ECG)		B <sup>10</sup>	B <sup>10</sup>	B <sup>10</sup>
2.15-Lead Electrocardiogram (ECG)				O
3.Airway-BIAD-Combitube		B <sup>12</sup>	B <sup>12</sup>	B <sup>3</sup>
4.Airway-BIAD-King LT		B <sup>12</sup>	B <sup>12</sup>	B <sup>3</sup>
5.Airway-BIAD-Laryngeal Mask Airway (LMA)		B <sup>12</sup>	B <sup>12</sup>	B <sup>3</sup>
6.Airway-CPAP			O	S, O
7.Airway-Cricothyrotomy-Surgical				B <sup>3</sup>
8.Airway-Endotracheal Tube Introducer			O	O
9.Airway-Foreign Body Obstruction	B	B	B	B
10. Airway Intubation Confirmation-End-Tidal CO <sub>2</sub> (color)		B <sup>4</sup>	B <sup>4</sup>	B <sup>4</sup>
11. Airway-Intubation Confirmation-Esophageal Bulb		O	O	O
12. Airway-Intubation Rapid Sequence Intubation - Adult				O, S
13. Airway-Intubation Rapid Sequence Intubation - Peds				O <sup>5</sup>
14. Airway-Intubation Nasotracheal			O	O
15. Airway-Intubation Oral Tracheal			B	B
16. Airway-Nebulizer Inhalation Therapy		O	O	O
17. Airway-Respirator Operation			O	O
18. Airway-Suction Advanced			B	B
19. Airway-Suction Basic		B	B	B
20. Airway-Tracheostomy Tube Change				B
21. Airway-Ventilator Operation				S, O
22. Arterial Lines-Blood Draw				S, O
23. Arterial Lines-Maintain				S, O
24. Assessment-Adult	B	B	B	B
25. Assessment-Pain	B	B	B	B
26. Assessment-Pediatric	B	B	B	B
27. Blood Glucose Analysis	B <sup>13</sup>	B <sup>13</sup>	B	B
28. Capnography (waveform)		B <sup>11</sup>	B <sup>11</sup>	B <sup>11</sup>
29. Carbon Monoxide Measurement – Non-invasive	O	O	O	O
30. Cardiac Pacing				B
31. Cardiopulmonary Resuscitation (CPR)	B	B	B	B
32. Chest Compression – External Device		O	O	O
33. Cardioversion				B
34. Chest Decompression (Needle)				B
35. Chest Tube Maintenance				O
36. Childbirth		B	B	B
37. CNS Catheter-Epidural Catheter Maintenance				S, O
38. CNS Catheter-Ventricular Catheter Maintenance				S, O
39. Decontamination	B	B	B	B
40. Defibrillation-Automated	B	B	B	O
41. Defibrillation-Manual				B
42. Gastric Tube Insertion				S, O
43. Injections-SQ and IM			B	B
44. Orthostatic Blood Pressure	O	O	B	B
45. Pulse Oximetry	B <sup>13</sup>	B <sup>13</sup>	B	B
46. Reperfusion Checklist	B	B	B	B <sup>7</sup>
47. Restraints Physical		B	B	B



# North Carolina College of Emergency Physicians Standards for EMS Medications and Skills Use



48. Spinal Immobilization	B	B	B	B
49. Splinting	B	B	B	B
50. Stroke Screen	B	B	B	B <sup>7</sup>
51. Temperature Measurement	O	O	B	B
52. Urinary Catheterization				S, O
53. Venous Access-Blood Draw			O	O
54. Venous Access-Central Line Maintenance				S, O
55. Venous Access-Existing catheters				B
56. Venous Access-External Jugular Access			B	B
57. Venous Access-Extremity			B	B
58. Venous Access-Femoral Line				O <sup>6</sup>
59. Venous Access-Intraosseous				B
60. Venous Access-Swan-Ganz Catheter Maintenance				S, O
61. Wound Care-General	B	B	B	B
62. Wound Care-Hemostatic Agent	B	B	B	B
63. Wound Care-Taser Probe Removal	B	B	B	B
64. Wound Care-Tourniquet	B	B	B	B

- B<sup>1</sup>** = All EMT-Paramedic systems must carry some form of anti-arrhythmic agent. This must either be amiodarone, lidocaine, or procainamide.
- B<sup>2</sup>** = All EMT-Paramedic systems must carry some form of injectable benzodiazepine.
- B<sup>3</sup>** = All EMT-Paramedic Systems must have an airway backup. This can be a Combitube, Laryngeal Mask Airway (LMA) or Surgical Cricothyrotomy. 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.
- B<sup>4</sup>** = All EMT-Intermediate and Paramedic Systems must use either Capnometry (Color) or waveform Capnography to confirm every intubation and invasive airway. EMT-Paramedic systems performing Rapid Sequence Induction must use waveform Capnography to confirm tube placement.
- B<sup>5</sup>** = Epinephrine in EMT systems may be used in Anaphylaxis only.
- B<sup>6</sup>** = All EMT systems may use Epinephrine, Albuterol, Nitroglycerine, Naloxone, Aspirin, and over the counter medications if they function under medical direction.
- B<sup>7</sup>** = Stroke Screen and Reperfusion Screens are not required for interfacility transports associated with Neonatal Specialty Care Transport Services.
- B<sup>8</sup>** = EMT-Paramedic systems must carry either a Calcium Channel Blocker or Beta- Blocker.
- B<sup>9</sup>** = EMT-Intermediate systems must carry either Acetaminophen or a Non-steroidal anti-inflammatory.
- B<sup>10</sup>** = It is not required but highly recommended that all EMS Systems at all levels work to have 12 lead ECG capability at the scene of every emergent event.
- B<sup>11</sup>** = It is not required but highly recommended that all EMS Systems at all levels work to have waveform Capnography capability at the scene of every emergent event.
- B<sup>12</sup>** = All EMS Systems at all levels must carry some version of a Blind Insertion Airway Device. This may be either the Combitube, King LT, or LMA device. It is recommended that at BIAD with pediatric sizes be used. EMT=Basic Systems must fall under medical direction to use BIADs.
- B<sup>13</sup>** = Glucose Measuring Devices and Pulse Oximetry must be available to monitor any patient cared for within an EMT-Basic System.

- O<sup>1</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 medial direction. All personnel except for EMT-P's must administer these medication by an auto injector.
- O<sup>2</sup>** = All EMT systems may use Epinephrine, Albuterol, Nitroglycerine, Naloxone, Aspirin, and over the counter medications if they function under medical direction
- O<sup>3</sup>** = Can only be used for interfacility transport where infusion has already been started at transferring facility. EMS units can not carry propofol unless it is provided by transferring hospital. EMS systems anticipating utilizing propofol must submit to OEMS a policy regarding education of staff on use of propofol and Quality Management surrounding propofol.



- O<sup>4</sup> = Ketamine may only be used as an induction agent for RSI or for post intubation sedation.
- O<sup>5</sup> = Airway-Intubation Rapid Sequence Intubation – Peds is optional only for SCTP. Pediatric RSI is not permitted for patients less than 12 years of age in primary 911 agencies.
- O<sup>6</sup> = Venous Access-Femoral Line is optional only for SCTP. Femoral lines are not permitted by primary 911 agencies

**All Specialty Care Transport Programs which are listed in a counties primary 911 response plan or provide backup 911 primary response service, are required to maintain the same level of skills, medications and equipment which the county system maintains.**

**\*For the purposes of this document, a “ventilator” is a ventilation device, which attaches to an endotracheal or tracheostomy tube. It is capable of ventilating by a pressure or volume delivery mechanism. It must have adjustments for respiratory rate, volume/pressure settings, and for assisted or full ventilation. It has the capabilities of PEEP or other pressure based manipulations. A “respirator” is any other device, which assists with ventilations during a respiratory/cardiac arrest.**