

# NOTICES

## **Approved and Required Medications Lists for Emergency Medical Services Agencies and Emergency Medical Services Providers**

**[45 Pa.B. 5451]**

**[Saturday, August 29, 2015]**

Under 28 Pa. Code §§ 1027.3(c) and 1027.5(b) (relating to licensure and general operating standards; and medication use, control and security), the Department of Health (Department) has the authority to publish in the *Pennsylvania Bulletin* a list of medications approved for use by emergency medical services (EMS) agencies, by EMS provider certification level and a list of medications that an EMS agency is required to stock based upon the type of EMS service it is licensed, under 35 Pa.C.S. § 8129 (relating to emergency medical services agencies), to provide. The Department has approved the following medications for administration by emergency medical responders (EMR), emergency medical technicians (EMT), advanced emergency medical technicians (AEMT), paramedics, prehospital registered nurses (PHRN), prehospital physician extenders (PHPE) and prehospital emergency medical services physicians (PHP) when functioning on behalf of an EMS agency. This notice also specifies the medications that must be stocked on the EMS vehicle listed.

Under 28 Pa. Code § 1027.5(d), EMS providers, other than a PHP, may administer to a patient medications, or assist the patient to administer medications previously prescribed for that patient, as specified in the Statewide EMS protocols or as authorized by a medical command physician. An EMS provider may administer medications on this list if the EMS provider is credentialed to do so and the EMS vehicle on which they are providing EMS is properly licensed to carry the medication.

Unless otherwise stated or restricted to a specific level of provider, listed medications may be given by any acceptable route as listed in protocol or as ordered by a medical command physician.

Medications listed as required to be carried on a specified type of EMS vehicle must be carried in a quantity sufficient to treat, using the Statewide EMS protocols, at least one adult. If the protocol identifies repeat doses, then additional medication must be carried. When a pediatric dose option is available (for example a pediatric EPINEPHrine autoinjector), then both the adult and pediatric options must be carried.

Section 8129(j) of 35 Pa.C.S. authorizes the Department to publish, through the *Pennsylvania Bulletin*, vehicle construction, equipment and supply requirements

for EMS agencies based upon the type of EMS vehicles operated and the services provided. Under this authority, the Department is requiring that, during interfacility transport, all medications given by continuous infusion (except intravenous electrolyte solutions with potassium concentrations of no more than 20 mEq/L) must be regulated by an electronic infusion pump. For prehospital transport, continuous infusions of crystalloid solutions containing medication (except intravenous electrolyte solutions with potassium concentrations of no more than 20 mEq/L) and all vasoactive medications must be rate controlled by electronic IV pump or a manual flow control device capable of setting specific numeric flow rates. Nitroglycerin infusion must be regulated with an electronic pump.

Persons with a disability who require an alternate format of this notice (for example, large print, audiotope, Braille) should contact Richard L. Gibbons, Bureau Director, Department of Health, Bureau of Emergency Medical Services, Room 606, Health and Welfare Building, 625 Forster Street, Harrisburg, PA 17120-0710, (717) 787-8740. Speech or hearing impaired persons may call by using V/TT (717) 783-6154 or the Pennsylvania AT&T Relay Service at (800) 654-5984 (TT).

**Table 1. Medications that may be administered by EMS providers when functioning on behalf of an EMS agency based upon the type of EMS service an EMS agency is licensed to provide.**

| Medication  | QRS   | BLS   | IALS   | ALS                                      | CCT   | Air   |
|---|---|---|--|--|---|---|
|   | (incl. provider at or above the level of EMR) | (incl. provider at or above the level of EMT) | (incl. provider at or above the level of AEMT) | (incl. provider above the level of AEMT) | (incl. providers above the level of AEMT with additional approved training) | (incl. providers above the level of AEMT with additional approved training) |
| Abciximab   | NO  | NO  | NO   | YES <sup>4</sup>                         | YES <sup>4 or 5</sup>   | YES <sup>4 or 5</sup>   |
| Acetaminophen   | NO  | NO  | NO   | YES                                      | YES   | YES   |
| Acetylcysteine  | NO  | NO  | NO   | YES <sup>4</sup>                         | YES <sup>4</sup>  | YES <sup>4</sup>  |
| Activated charcoal                                      | NO  | YES   | YES  | YES                                      | YES   | YES   |
| Adenosine   | NO  | NO  | NO   | YES                                      | YES   | YES   |
| Albumin   | NO  | NO  | NO   | NO                                       | YES <sup>4,5</sup>  | YES <sup>4,5</sup>  |
| Albuterol (nebulizer solution)                          | NO  | NO  | YES  | YES                                      | YES   | YES   |
| Albuterol with ipratropium bromide (nebulizer solution) | NO  | NO  | YES  | YES                                      | YES   | YES   |

|  |    |     |     |                  |                    |                    |
|--|----|-----|-----|------------------|--------------------|--------------------|
| Amiodarone   | NO | NO  | NO  | YES              | YES                | YES                |
| Anti-coagulants/Platelet Inhibitors: all types (unless otherwise specifically listed)  | NO | NO  | NO  | NO               | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Anticonvulsants: all types (unless otherwise specifically listed)  | NO | NO  | NO  | NO               | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Anti-emetics: all types (not otherwise specifically listed)  | NO | NO  | NO  | NO               | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Anti-hypertensives: all types (unless otherwise specifically listed)   | NO | NO  | NO  | NO               | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Antimicrobials: all types  | NO | NO  | NO  | YES <sup>4</sup> | YES <sup>4</sup>   | YES <sup>4</sup>   |
| Antivenom: all types   | NO | NO  | NO  | NO               | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Aspirin, oral  | NO | YES | YES | YES              | YES                | YES                |
| Atenolol   | NO | NO  | NO  | NO               | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Atropine sulfate   | NO | NO  | NO  | YES              | YES                | YES                |
| Barbiturates: all types  | NO | NO  | NO  | NO               | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Benzocaine, topical  | NO | NO  | NO  | YES              | YES                | YES                |
| Bivalirudin  | NO | NO  | NO  | YES <sup>4</sup> | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Blood products: all types  | NO | NO  | NO  | NO               | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Bronchodilators, short-acting medications listed in Statewide BLS protocol and contained in multidose inhaler (MDI), assist with patient's own prescribed medication   | NO | YES | YES | YES              | YES                | YES                |
| Calcium chloride/calcium gluconate   | NO | NO  | NO  | YES              | YES                | YES                |
| Captopril  | NO | NO  | NO  | YES              | YES                | YES                |
| Clopidogrel  | NO | NO  | NO  | NO               | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Crystalloid solutions (the following solutions may be administered separately or in combination in various concentrations of each: dextrose, Lactated Ringers, Normosol, saline (NaCl)) (unless otherwise specifically listed). <i>Note</i> — Normal Saline Solution listed separately | NO | NO  | NO  | YES              | YES                | YES                |

|   |    |     |                  |                  |                       |                       |
|---|----|-----|------------------|------------------|-----------------------|-----------------------|
| Crystalloid solution containing potassium, interfacility transport only, potassium concentration may not exceed 20 mEq/kg unless managed by qualified CCT or Air Medical provider | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4</sup>      | YES <sup>4</sup>      |
| Dexamethasone sodium phosphate  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Dextran   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Dextrose (for intravenous bolus in concentrations between 10-50%)   | NO | NO  | YES              | YES              | YES                   | YES                   |
| Diazepam  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Digoxin   | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Diltiazem   | NO | NO  | NO               | YES              | YES                   | YES                   |
| DiphenhydrAMINE HCl   | NO | NO  | NO               | YES              | YES                   | YES                   |
| DOBUTamine  | NO | NO  | NO               | YES              | YES                   | YES                   |
| DOPamine  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Enalapril   | NO | NO  | NO               | YES              | YES                   | YES                   |
| EPINEPHrine HCl 1:1,000 (unless otherwise specifically listed)  | NO | NO  | YES <sup>2</sup> | YES              | YES                   | YES                   |
| EPINEPHrine HCl 1:10,000 solution and diluted concentrations for intravenous infusion   | NO | NO  | NO               | YES              | YES                   | YES                   |
| EPINEPHrine HCl autoinjector, assist with patient's own prescribed medication   | NO | YES | YES              | YES              | YES                   | YES                   |
| EPINEPHrine HCl autoinjector (adult and pediatric dose sizes), (unless otherwise specifically listed)   | NO | NO  | YES              | YES              | YES                   | YES                   |
| EPINEPHrine HCl autoinjector (adult and pediatric dose sizes), applies only to EMTs in BLS services approved for EMT EPINEPHrine program  | NO | YES | N/A              | N/A              | N/A                   | N/A                   |
| EPINEPHrine HCl, including racemic (by nebulizer)   | NO | NO  | NO               | YES              | YES                   | YES                   |
| Eptifibatide  | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4 or 5</sup> | YES <sup>4 or 5</sup> |
| Esmolol   | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |

|  |    |     |                  |                  |                       |                       |
|--|----|-----|------------------|------------------|-----------------------|-----------------------|
| Etomidate  | NO | NO  | NO               | YES <sup>3</sup> | YES <sup>3</sup>      | YES <sup>3</sup>      |
| FentanNYL  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Fibrinolytics/thrombolytics: all types   | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Furosemide   | NO | NO  | NO               | YES              | YES                   | YES                   |
| Flumazenil   | NO | NO  | NO               | NO               | YES <sup>4</sup>      | YES <sup>4</sup>      |
| Glucagon   | NO | NO  | YES <sup>9</sup> | YES              | YES                   | YES                   |
| Glucocorticoids/mineralcorticoids (unless otherwise specifically listed)                     | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Glucose, oral  | NO | YES | YES              | YES              | YES                   | YES                   |
| Heparin (unless otherwise specifically listed)   | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Heparin (by continuous intravenous infusion)   | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4 or 5</sup> | YES <sup>4 or 5</sup> |
| Hespan   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Hydralazine  | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Hydrocortisone sodium succinate  | NO | NO  | NO               | YES              | YES                   | YES                   |
| HYRDRORomphone   | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4 or 5</sup> | YES <sup>4 or 5</sup> |
| Hydroxocobalamin   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Insulin  | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Isoproterenol HCl  | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4</sup>      | YES <sup>4</sup>      |
| Ketamine   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Ketorolac  | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Labetolol  | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Levalbuterol   | NO | NO  | NO               | YES <sup>4</sup> | YES <sup>4</sup>      | YES <sup>4</sup>      |
| Lidocaine HCl  | NO | NO  | NO               | YES              | YES                   | YES                   |
| LORazepam  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Magnesium sulfate  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Mannitol   | NO | NO  | NO               | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Metaproterenol   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| MethylPREDNISolone   | NO | NO  | NO               | YES              | YES                   | YES                   |
| Metoprolol   | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Midazolam  | NO | NO  | NO               | YES              | YES                   | YES                   |
| Milrinone  | NO | NO  | NO               | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Morphine sulfate   | NO | NO  | NO               | YES              | YES                   | YES                   |
| Naloxone (unless otherwise specifically listed). <i>Note</i> —autoinjector listed separately | NO | NO  | YES <sup>9</sup> | YES              | YES                   | YES                   |

|  |                  |                    |                    |     |                    |                    |
|--|------------------|--------------------|--------------------|-----|--------------------|--------------------|
| Naloxone, intranasal or autoinjector. <i>Note</i> —EMRs and EMTs must complete additional required education with QRS or BLS service participating in naloxone program | YES <sup>1</sup> | YES <sup>1</sup>   | YES <sup>9</sup>   | YES | YES                | YES                |
| Nerve agent antidote kit, autoinjector only (may include atropine, pralidoxime and diazepam)   | NO               | YES <sup>6,7</sup> | YES <sup>6,7</sup> | YES | YES                | YES                |
| Non-depolarizing neuromuscular blocking agents: all types, intravenous bolus during rapid sequence induction, assisting PHRN, PHPE or PHP                              | NO               | NO                 | NO                 | NO  | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Non-depolarizing neuromuscular blocking agents: all types, intravenous infusion during interfacility transport   | NO               | NO                 | NO                 | NO  | YES <sup>4</sup>   | YES <sup>4</sup>   |
| Nitroglycerin, intravenous and topical   | NO               | NO                 | NO                 | YES | YES                | YES                |
| Nitroglycerin, sublingual (unless otherwise specifically listed)   | NO               | NO                 | YES                | YES | YES                | YES                |
| Nitroglycerin, sublingual, assist with patient's own prescribed medication   | NO               | YES                | YES                | YES | YES                | YES                |
| Nitrous oxide  | NO               | NO                 | YES                | YES | YES                | YES                |
| Norepinephrine   | NO               | NO                 | NO                 | NO  | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Normal Saline Solution (0.9% NaCl solution for intravenous volume infusion)  | NO               | NO                 | YES                | YES | YES                | YES                |
| Ondansetron  | NO               | NO                 | NO                 | YES | YES                | YES                |
| Oxygen, delivered by devices within the published scope of practice for the EMS provider   | YES              | YES                | YES                | YES | YES                | YES                |
| Oxytocin   | NO               | NO                 | NO                 | YES | YES                | YES                |
| Phenylephrine  | NO               | NO                 | NO                 | NO  | YES <sup>5</sup>   | YES <sup>5</sup>   |
| Potassium Cl (in concentrations above 20 mEq/L)  | NO               | NO                 | NO                 | NO  | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Plasmanate   | NO               | NO                 | NO                 | NO  | YES <sup>4,5</sup> | YES <sup>4,5</sup> |
| Pralidoxime  | NO               | NO                 | NO                 | YES | YES                | YES                |
| Procainamide   | NO               | NO                 | NO                 | YES | YES                | YES                |

|  |    |    |    |                  |                       |                       |
|--|----|----|----|------------------|-----------------------|-----------------------|
| Propofol   | NO | NO | NO | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Propranolol  | NO | NO | NO | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Prostaglandins: all types  | NO | NO | NO | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Quinidine sulfate/quinidine gluconate  | NO | NO | NO | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Sodium bicarbonate   | NO | NO | NO | YES              | YES                   | YES                   |
| Sodium thiosulfate   | NO | NO | NO | YES              | YES                   | YES                   |
| Sterile water, for injection   | NO | NO | NO | YES              | YES                   | YES                   |
| Succinylcholine  | NO | NO | NO | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Terbutaline  | NO | NO | NO | YES              | YES                   | YES                   |
| Tetracaine, topical  | NO | NO | NO | YES              | YES                   | YES                   |
| Theophylline   | NO | NO | NO | NO               | YES <sup>4,5</sup>    | YES <sup>4,5</sup>    |
| Tirofiban  | NO | NO | NO | YES <sup>4</sup> | YES <sup>4 or 5</sup> | YES <sup>4 or 5</sup> |
| Tocolytics: all types (unless otherwise specifically listed)   | NO | NO | NO | NO               | YES <sup>5</sup>      | YES <sup>5</sup>      |
| Total Parenteral Nutrition   | NO | NO | NO | YES <sup>4</sup> | YES <sup>4</sup>      | YES <sup>4</sup>      |
| Verapamil  | NO | NO | NO | YES              | YES                   | YES                   |
| Medications not listed above, but within DOH-approved air ambulance service protocol for use by PHRN, PHPE and PHP | NO | NO | NO | NO               | NO                    | YES <sup>5</sup>      |

**Table 2. Medications required to be carried by a specified EMS vehicle based upon the type of EMS service an EMS agency is licensed to provide. (R=Required)**

| Medication  | QRS | BLS | IALS           | ALS                | CCT                | AIR                |
|---|-----|-----|----------------|--------------------|--------------------|--------------------|
| Adenosine   |     |     |                | R                  | R                  | R                  |
| Aspirin, oral   | R   | R   |                | R                  | R                  | R                  |
| Atropine sulfate  |     |     |                | R                  | R                  | R                  |
| Benzodiazepines (diazepam, lorazepam or midazolam) At least one type must be carried.   |     |     |                | R <sup>10,12</sup> | R <sup>10,12</sup> | R <sup>10,12</sup> |
| Bronchodilators (nebulizer solution), (albuterol or albuterol with ipratropium bromide) At least one type must be carried.  |     |     | R <sup>8</sup> | R <sup>8</sup>     | R <sup>8</sup>     | R <sup>8</sup>     |
| Dextrose (for intravenous bolus in concentration between 10-50%)  |     |     | R              | R                  | R                  | R                  |
| DiphenhydrAMINE HCl   |     |     |                | R                  | R                  | R                  |
| EPINEPHrine HCl, 1:1,000 concentration (IALS may meet requirement with EPINEPHrine as autoinjector—both adult and pediatric dose sizes—or as solution in vial/ampoule; ALS, CCT, and Air must carry 1:1,000 in vial or ampoule) | R   |     |                | R                  | R                  | R                  |

|   |                |                |                    |                    |                    |
|---|----------------|----------------|--------------------|--------------------|--------------------|
| EPINEPHrine HCl, 1:10,000 concentration   |                |                | R                  | R                  | R                  |
| EPINEPHrine, autoinjector (adult and pediatric dose sizes)—<br>applies only to BLS services approved for EMT<br>EPINEPHrine program | R <sup>3</sup> |                |                    |                    |                    |
| Etomidate—applies only to ALS services approved by<br>regional etomidate program  |                |                | R <sup>3</sup>     | R <sup>3</sup>     | R <sup>3</sup>     |
| Glucagon  |                | R              |                    | R                  | R                  |
| Glucose, oral   | R              | R              | R                  | R                  | R                  |
| Lidocaine HCl   |                |                | R                  | R                  | R                  |
| Naloxone (restrictions on forms for QRS/BLS services listed<br>separately)  |                | R              | R                  | R                  | R                  |
| Naloxone, intranasal kit or intramuscular autoinjector—<br>applies only to QRS/BLS services that meet training<br>requirements.     | R <sup>3</sup> | R <sup>3</sup> |                    |                    |                    |
| Narcotic analgesics (fentaNYL or morphine sulfate) At least<br>one type must be carried.  |                |                | R <sup>11,12</sup> | R <sup>11,12</sup> | R <sup>11,12</sup> |
| Nitroglycerin, sublingual   |                | R              | R                  | R                  | R                  |
| Normal Saline Solution (0.9% NaCl solution for intravenous<br>volume infusion)  |                | R              | R                  | R                  | R                  |
| Oxygen  | R              | R              | R                  | R                  | R                  |
| Sodium bicarbonate  |                |                | R                  | R                  | R                  |
| Medication within DOH-approved air ambulance service<br>protocol for use by PHRN, PHPE or PHP on crew                               |                |                |                    |                    | R                  |

QRS—Quick Response Service; BLS—Basic Life Support ambulance service; IALS—Intermediate Advanced Life Support ambulance service; ALS—Advanced Life Support ambulance service; CCT—Critical Care Transport ambulance service; Air—Air ambulance service.

1. EMRs and EMTs are restricted to administering this medication by intranasal and intramuscular autoinjector routes only, consistent with Statewide BLS protocols.

2. AEMTs are restricted to administering this medication by intramuscular route only, consistent with Statewide AEMT protocols. AEMTs may not administer this medication by intravenous or intraosseous route.

3. Permitted for services that meet Department requirements for training, medication stocking and any agency or quality improvement requirements, as verified by the agency's assigned regional EMS council.

4. During interfacility transport, paramedics who are authorized to function for an EMS agency that has been licensed as an ALS, CCT or air ambulance service are

restricted to the maintenance and monitoring of medication administration that is initiated at the sending medical facility.

5. This medication must be carried on a CCT ambulance so that it is only accessible when a PHRN, PHPE or PHP is part of the crew. Paramedics who are authorized to function for an EMS agency that has been licensed as a CCT or air ambulance service may only administer this medication when in the direct physical presence of, and supervised by, a PHRN, PHPE or PHP.

6. May administer to a patient when assisting an EMS provider above the level of AEMT who has determined the dose for the patient consistent with Statewide ALS protocols.

7. For self or peer rescue only.

8. One listed type of bronchodilator medication must be carried on each licensed vehicle.

9. AEMTs are restricted to administering this medication by intranasal, intramuscular or subcutaneous routes only, consistent with Statewide AEMT protocols. AEMTs may not give this medication by intravenous route.

10. One benzodiazepine class medication must be carried on each licensed vehicle.

11. One opioid class medication must be carried on each licensed vehicle.

12. For additional information relating to security and medication tracking requirements for controlled substances, see 28 Pa. Code § 1027.5.

KAREN M. MURPHY, PhD, RN,  
Secretary