



# NOTICES

## DEPARTMENT OF HEALTH

### Approved and Required Medications Lists for Emergency Medical Service Agencies and Emergency Medical Service Providers

[49 Pa.B. 3384]  
[Saturday, June 29, 2019]

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 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 emergency medical service (EMS) agency. The approvals are based upon the type of EMS service an EMS agency is licensed to provide under 35 Pa.C.S. § 8129 (relating to emergency medical services agencies). This notice also specifies the minimum required medications to be stocked on a specified EMS vehicle based upon the type of EMS service the EMS agency is licensed to provide.

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 contained 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 that are listed as required must be carried on the specified level of EMS vehicle and must be carried in a quantity sufficient to treat at least one adult using the Statewide EMS protocols. 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.

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.

**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.**

<b>Medication</b>	<b>QRS (including providers at or above the level of EMR)</b>	<b>BLS (including providers at or above the level of EMT)</b>	<b>IALS (including providers at or above the level of AEMT)</b>	<b>ALS (including providers above the level of AEMT)</b>	<b>CCT (including providers above the level of AEMT with additional approved training)</b>	<b>Air (including providers above the level of AEMT with additional approved training)</b>
Abciximab	NO	NO	NO	YES <sup>4</sup>	YES <sup>4</sup> or <sup>5</sup>	YES <sup>4</sup> or <sup>5</sup>
Acetaminophen	NO	YES	YES	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	YES	YES	YES	YES	YES
Albuterol with ipratropium bromide (nebulizer solution)	NO	YES	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>4</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 hypertonic solutions	NO	NO	NO	NO	YES <sup>5</sup>	YES <sup>5</sup>
Crystalloid isotonic solutions, including but not limited to: Isolyte, Lactated Ringers, Normosol, saline (NaCl) (unless otherwise specifically listed). <i>Note</i> —Normal Saline Solution and Dextrose 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 5%—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
EMLA cream	NO	NO	NO	YES	YES	YES
Enalapril	NO	NO	NO	YES	YES	YES
EPINEPHrine HCl 1mg/mL (unless otherwise specifically listed)	NO	NO	YES <sup>2</sup>	YES	YES	YES
EPINEPHrine HCl 0.1mg/mL solution and diluted concentrations for intravenous infusion	NO	NO	NO	YES	YES	YES
EPINEPHrine HCl 0.1mg/mL for cardiac arrest	NO	NO	YES	N/A	N/A	N/A
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
HYDRORomorphone	NO	NO	NO	YES <sup>4</sup>	YES <sup>4 or 5</sup>	YES <sup>4 or 5</sup>
Hydroxocobalamin	NO	NO	NO	YES	YES	YES
Ibuprofen	NO	YES	YES	YES	YES	YES
Immunizations	NO	NO	NO	YES <sup>9</sup>	YES <sup>9</sup>	YES <sup>9</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	YES <sup>3</sup>	YES <sup>3,4,5</sup>	YES <sup>3,4,5</sup>
Ketorolac	NO	NO	YES	YES	YES	YES
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	YES <sup>4</sup>	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	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	YES	YES	YES
Nerve agent antidote kit, autoinjector only	NO	YES <sup>6,7</sup>	YES <sup>6,7</sup>	YES	YES	YES

(may include atropine, pralidoxime, and diazepam)

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	YES	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
Pantoprazole	NO	NO	NO	YES <sup>4</sup>	YES <sup>4,5</sup>	YES <sup>4,5</sup>
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>
Tranexamic Acid	NO	NO	NO	YES <sup>4</sup>	YES <sup>4 or 5</sup>	YES <sup>4 or 5</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, 1mg/mL 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 1mg/mL in vial or ampoule)			R	R	R	R
EPINEPHrine HCl, 0.1mg/mL concentration				R	R	R
EPINEPHrine, autoinjector (adult and pediatric dose sizes)—applies only to BLS services						

approved for EMT EPINEPHrine program					R <sup>3</sup>
Etomidate—applies only to ALS services approved by 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 separately)			R	R	R R
Naloxone, intranasal kit or intramuscular autoinjector—applies only to QRS/BLS services that meet training requirements.	R <sup>3</sup>	R <sup>3</sup>			
Narcotic analgesics (fentaNYL or morphine sulfate)—At least 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 volume infusion)			R	R	R R
Oxygen		R	R	R	R R
Sodium bicarbonate				R	R R
Medication within DOH-approved air ambulance service 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. If carried on a CCT ambulance, this medication must be secured 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. Appropriate for community or peer programs under the oversight of the EMS Agency Medical Director, but not for responses to 9-1-1 calls.
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.

Persons with a disability who require an alternate format of this notice (for example, large print, audiotape, Braille) should contact Aaron M. Rhone, EMS Program Manager, Department of Health, Bureau of Emergency Medical Services, 1310 Elmerton Avenue, Harrisburg, PA 17110, (717) 787-8740. Speech or hearing impaired persons, call by using V/TT: (717) 783-6154 or the Pennsylvania AT&T Relay Service at (800) 654-5984 (TT).

RACHEL L. LEVINE, MD,  
Secretary

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