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**ADVISORY 18-01-01**

**TO:** All MA Licensed Ambulance Services and MA Accredited EMT Training Institutions  
**CC:** EMCAB Members  
**FROM:** Dr. Jonathan Burstein, State Emergency Medical Services (EMS) Medical Director  
**DATE:** January 31, 2018  
**RE:** Required Medications on Ambulances per Statewide Treatment Protocols, v. 2018.1

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In order for ambulances services to provide care in accordance with the updated Statewide Treatment Protocols (STP), v. 2018.1, which become effective April 1, 2018, they will need to make some changes in the medications or medication levels they carry.

**Services must complete training and medication changes for STP v.2018.1 by April 1, 2018.** Once a service has successfully trained all of their EMS personnel, and adjusted vehicle medication levels, they may begin operating under the revised protocols.

**Norepinephrine may only be administered via infusion pump.** Services may continue to use Dopamine instead of Norepinephrine until they have pumps available on their ambulances. Services that have trained and equipped their EMS personnel may begin having them use the pumps immediately. Norepinephrine should be packaged with 250mL 5% Dextrose diluent, or may be supplied as a premixed infusion from the pharmacy.

**Midazolam is the only required benzodiazepine.** Paramedic units must carry a total of 12mg of Midazolam. Diazepam or Lorazepam are only acceptable when a drug shortage of Midazolam occurs and the affiliate hospital medical director approves of these as alternatives to Midazolam.

Fentanyl must be carried, but Morphine remains optional. Ketamine remains an optional medication under 2.4 Behavioral Emergencies.

**Advanced EMTs are now authorized to administer Ondansetron.** Advanced EMTs may administer oral Ondansetron. Ondansetron by oral disintegrating tablet (ODT) is the preferred method of dispensing this medication; however, Ondansetron is also approved for Advanced EMT administration IV/IM/IO to adults, and IV/IM to pediatric patients.

**EMT-Basics are now approved under medical director options to use injectable Epinephrine.** Under the Check and Inject program, with training and affiliate hospital medical director approval, EMT-Basics can use injectable epinephrine to replace epinephrine auto-injectors. Services must carry at a minimum 2 adult and 2 pediatric epinephrine kits.

Minimum medication quantities reflect operational use and reasonable restocking time. For those services that have high volume and/or limited access to drug replacement through their affiliate hospital's pharmacy, adjustments to minimum drug quantities may be needed. Alternative drug replacement for off hours may be necessary in order to maintain minimum par levels.

Please note: Medications may be available in concentrations not listed below, and should be maintained in consultation with the hospital pharmacist and affiliate hospital medical director.

# ADVANCED LIFE SUPPORT (ALS-PARAMEDIC LEVEL) MEDICATION LIST

## VERSION 2018

ALL of the following medications are required (in addition to/above those required for ALS-Advanced and Basic Life Support vehicles):

REQUIRED MEDICATIONS		
Medication Name	Suggested Concentration / Formulation	Minimum quantity per vehicle
Adenosine (Adenocard)	6mg/2mL	36mg
Albuterol	2.5mg for Nebulizer	10mg
Amiodarone	150mg/3mL	450mg
Atropine Sulfate	1mg	3mg
Acetaminophen PO	1000mg	2000mg or bottle
Calcium Chloride	10% solution--100mg/mL	1g
Dextrose	25g of D10, additional medication as D10, D25 or D50	50g
Diltiazem		100mg
Diphenhydramine (Benadryl)	50mg	100mg
Dopamine **	1600mcg/250 mL	800mcg
Epinephrine	1:1000 for infusion	2mg
Epinephrine	1:10,000 (1mg pre-filled syringes)	12mg
Fentanyl (Sublimaze)	50mcg/mL	400mcg
Furosemide (Lasix)		80mg
Glucagon	1mg	2mg
Haloperidol (Haldol)	5mg	10mg
Ibuprofen PO	200 mg	1200 mg or bottle
Ipratropium Bromide (Atrovent)	0.5mg	2000mcg/4 doses

<b>Ketorolac</b>	15mg IV or 30mg IM	60mg
<b>Lidocaine HCL 2%</b>	Pre-Filled syringes; 20mg/ml	200mg
<b>Lidocaine HCL</b>	Vials for infusion or pre-mixed bags	2gm/1 bag
<b>Magnesium Sulfate</b>		4g
<b>Metoprolol (Lopressor)</b>	5mL	10mg
<b>Midazolam (Versed)</b>	2mg/mL	12mg
<b>Naloxone (Narcan)</b>		20mg
<b>Nitroglycerin</b>	Bottle or 6 unit dose tabs & Paste (1) tube/2 doses	1 each
<b>Norepinephrine * (Levophed)</b>	4mg/4mL	4mg
<b>Dextrose 5%</b> Diluent packaged with norepinephrine		250mL
<b>Racemic Epinephrine</b>	11.25mg/2mL	2 doses
<b>Sodium Bicarbonate</b>	2 pre-filled @ 50mL	100 mEq
<b>Methylprednisolone (Solu-Medrol)</b> <b>OR Hydrocortisone (Solu-Cortef)</b>	125mg OR 100mg	125mg OR 100mg

OPTIONAL MEDICATIONS			
Hydroxycobalamin (B12)	Tetracaine		NeoSynephrine/Phenylephrine nasal
Cyanide antidote kit	Vasopressin	Lidocaine jelly	Nerve Agent antidote kit
Tranexamic Acid: 2g/vehicle	Morphine: 20mg/vehicle		Ketamine: 500mg/vehicle
Acetaminophen IV : 2000mg/vehicle		Any other medications, as authorized by DPH	

\* Dopamine must be carried until IV pump available; then only Norepinephrine must be carried.

## ADVANCED LIFE SUPPORT (ADVANCED EMT LEVEL) MEDICATION LIST

### VERSION 2018

This list represents the medications required to be maintained on an ALS vehicle at the Advanced EMT level. Each quantity is in addition to/above the requirements of Basic Life Support vehicles.

REQUIRED MEDICATIONS		
Medication Name	Suggested Concentration/ Formulation	Minimum quantity per vehicle
Albuterol	2.5mg for Nebulizer	10mg
Dextrose	25g of D10, additional Medication as D10, D25 or D50	50g
Glucagon	1mg	2mg
Ipratropium Bromide (Atrovent)	0.5mg	2000mcg/ 4 doses
Lidocaine HCL 2%	Pre-Filled syringes; 20mg/ml	200mg
Naloxone (Narcan)		20mg
Nitroglycerin	Bottle or 6 unit dose tabs/2 doses	1 each
Odansetron (Zofran)	4mg ODT tablet; 2mg/ml IV	8mg

## BASIC LIFE SUPPORT (BLS) MEDICATION LIST

### VERSION 2018

This list represents the medications required to be maintained on a BLS vehicle. These medications are to be carried by ALS vehicles at the Advanced EMT and Paramedic levels as well.

REQUIRED MEDICATIONS		
Medication Name	Suggested Concentration/ Formulation	Minimum quantity per vehicle
Epinephrine Auto-Injector OR Injectable Epinephrine	Adult and Pedi; 1mg/ml	2 Adult, 2 Pedi 2 Adult kits, 2 Pedi kits
Aspirin (chewable)	81mg or 324mg	648mg
Naloxone (prefilled syringe with nasal atomizer)	2mg	8mg
Oral glucose or equivalent	25g	2

### OPTIONAL MEDICATION

Albuterol

If you have any questions, please contact Renée Atherton, NRP, OEMS Compliance Coordinator, at [reneee.atherton@state.ma.us](mailto:reneee.atherton@state.ma.us).