



Pennsylvania Statewide

Advanced Life Support Protocols

**Pennsylvania Department of Health
Bureau of Emergency Medical Services**

Effective July 1, 2011

SECTION 1000:		Operations
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SECTION 2000:		Assessments & Procedures
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3001 – Airway Obstruction		3001-1 thru 3001-2
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3031P – General Cardiac Arrest – Pediatric.....		3031P-1 thru 3031P-2
3032 – Cardiac Arrest - Traumatic.....		3032-1 thru 3032-2
3033 – Newborn/Neonatal Resuscitation.....		3033-1 thru 3033-2
3035 – Cardiac Arrest (Hypothermia)		3035-1 thru 3035-2
3041A – Ventricular Fibrillation/Pulseless VT – Adult.....		REMOVED
3041P – Ventricular Fibrillation/Pulseless VT – Pediatric.....		REMOVED
3042A – Asystole/Pulseless Electrical Activity (PEA) – Adult.....		REMOVED
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3. The “Medical Command Contact” Protocol # 9001 defines when medical command must be contacted and when it is appropriate to proceed beyond the “Contact Medical Command” step if communication with a medical command facility cannot be established.

F. Regional and Statewide Drug Lists

1. Paramedics may only use medications that are listed on the Statewide ALS Drug List as published in the Pennsylvania Bulletin and posted on the Bureau of EMS website.
2. Every region must publish a Department-approved regional drug list, which may not exceed the Statewide ALS Drug List. This regional list will set the standard for the minimum medications that must be carried on every ALS vehicle based within the region, but ALS services may carry additional medications listed on the Statewide ALS Drug List. At a minimum, the ALS agency must carry each medication that is required to provide the care that is listed in the Statewide and applicable regional protocols. This list will be used by regional council staff when conducting licensure inspections.

G. Medications/Procedural Skills

1. ~~The protocols list many medications and treatments that are optional and are not required of every ALS service or of every EMS provider.~~ EMS regions may choose to require the use of some of these options if there is a regional reason for standardization (for example a specific medication may be required because of a regional drug box exchange program). Medications or treatments that are not required by the region may be standardized by the EMS agency medical director using agency level policy.
2. General medication issues
 - a. When possible, dosing for various medications has been standardized across all protocols. EMS providers must use their training and knowledge to assure that doses given are appropriate for the patient’s age and weight. Although doses may not exceed those listed in the protocol, it may be appropriate to decrease the doses of some medications based upon patient condition, patient vital signs or patient age.
 - b. All references to medications, abbreviations, and doses have been standardized with attention to pharmacologic principles of medication error reduction.
 - c. Agencies should assure that medications are stored in a manner that provides for maximal shelf life and appropriate security. Some medications, for example lorazepam, may have limitations to the listed expiration date if the medication is not refrigerated. EMS agencies should follow Department guidance and good medication storage practices to assure that medications have not lost their potency.
 - d. EMS providers are expected to know the contraindications for each medication and are expected to assess patients for allergies, when possible, to any medication that is given. EMS providers should not administer medications to a patient when that medication is contraindicated in that situation.
3. Infusion mixtures - EMS regions or agencies may set standards for the mixture of medications that are to be given by infusion. When such standard concentrations are established, it is recommended that the region or agency also provide ALS providers with a table to assist in administering the correct infusion dosage.
4. Drawing blood samples - Drawing blood in the prehospital setting may assist receiving facilities in providing better diagnoses or more rapid treatment of patients, but in some areas the receiving facilities will not accept blood drawn by prehospital providers. Although it would be appropriate for an EMS agency to require blood draw in most situations where IV access is listed, EMS regions or agencies may determine whether drawing blood on prehospital patients is appropriate based upon the practices of local receiving hospitals.

**SHOCK / SYSTEMIC INFLAMMATORY RESPONSE SYNDROME (SIRS)
STATEWIDE ALS PROTOCOL**

Initial Patient Contact - Follow protocol #201¹
Manage Airway/Ventilate, if needed^{2,3}
High-flow oxygen
Keep patient warm
Monitor ECG/Pulse Oximetry⁴

Serious Dysrhythmia — YES → **Proceed to appropriate protocol**

Adult or Pediatric Patient

Adult

Pediatric
(≤ 14 years old)

Initiate IV/ IO NSS
Infuse fluid challenge of
500 mL as rapidly as possible^{5,6}

Initiate IV/ IO NSS⁸
Infuse fluid challenge of
20 mL /kg as rapidly as possible^{5,9}

**Reassess BP after each
fluid challenge**

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challenge**

**Contact Medical
Command**

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Command**

If no CHF, repeat
fluid challenge of NSS
500 mL IV/IO^{5,6}
Up to total of 2000 mL IV/IO⁵

OR
to SBP > 100

Repeat fluid challenge of NSS⁹
20 mL /kg IV/IO
Up to total of 60 mL/kg IV/IO
OR
to SBP > 70 + (2 x age in years)

If history of Congenital Adrenal
Hyperplasia (CAH) or daily steroid
use, check glucose and give
Hydrocortisone (if available or if
carried by patient)
0 – 3 y/o = 25 mg IV/IO
3 – 12 y/o = 50 mg IV/IO
≥ 12 y/o = 100 mg IV/IO
Or patient's prescribed dose,
if known

If SBP = 70-90 and cardiogenic shock,
Consider **Dobutamine Drip** (if available)⁷
OR
If SBP <90
Consider **Dopamine Drip**⁷

If hypotensive
Consider **Dopamine Drip**⁷