

Nassau Regional EMS Council

Basic Life Support Protocols and Supplements to State BLS Protocol Manual

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	Approved/ <u>Revised</u>	<u>Effective</u>
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u = Updated 7/18/2017

BLS – Adult Nerve Agent/Organophosphate Poisoning Antidote Protocol

This protocol applies to all appropriately trained ALS & BLS providers.

CAUTION IS TO BE EXERCISED AT ALL TIMES. ALARM INFORMATION INCLUDING LOCATION, NUMBER OF PATIENTS, AND COMPLAINTS SHOULD BE INCLUDED IN THE SCENE SIZE -UP PRIOR TO ARRIVAL. DECONTAMINATION TO PREVENT OFF GASSING MUST BE PERFORMED PRIOR TO EMS ASSESSMENT AND TREATMENT. TREATMENT BY EMS IS TO BE PERFORMED IN THE COLD ZONE ONLY UNLESS APPROPRIATELY TRAINED AND EQUIPPED.

1. **Atropine/2-Pam combination antidote injector kits are to be used only:**
 - A. when specific signs and symptoms of exposure are present

AND
 - B. the scene has been declared the site of a nerve agent release by a local competent authority

AND
 - C. Following orders from Medical Control
 - a) The Atropine/2-Pam combination antidote injectors are not to be used as a prophylaxis for personal protection.
 - b) There is to be no self-administration of antidote.
2. In the event EMS personnel become exposed to a Nerve Agent and they meet the above criteria, the Atropine/2-Pam combination antidote injectors may be administered via **BUDDY -ADMINISTRATION** only.
3. If **severe** signs and symptoms are present, three (3) Atropine/2-Pam combination antidote injectors should be administered in rapid succession.
4. If the patient exhibits **SLUDGEM** but no central nervous system (CNS) findings are present, then one (1) Atropine injector and one (1) Atropine/2-Pam combination antidote injector should be given.
5. In either case, remove secretions, maintain patient's airway and, if necessary and the resources permit use artificial ventilation.
6. If symptoms resolve, then only monitoring is necessary.
7. Pralidoxime (2-PAM CL) is most effective if administered immediately after poisoning and following but **not** before Atropine, especially for severe exposures.

BLS – Adult Nerve Agent/Organophosphate Poisoning Antidote Protocol

8. If dermal exposure has occurred, decontamination is critical and should be done with standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve agent exposures.
9. Diazepam (Valium) may be given *by ALS* personnel cautiously if convulsions are not controlled.
10. Documentation shall be done on triage tags. Each dose of Atropine should be recorded with an "A", each dose of Pralidoxime Chloride with a "P" (if an Atropine/2-Pam antidote injector is used then annotate with "A/P"), and each dose of Diazepam with a "D".
11. If patients continue to exhibit signs and symptoms of Nerve Agent intoxication they may continue to receive Atropine/2-Pam antidote injector until symptoms cease or 3 combination injectors have been administered.

NOTE: THE MAXIMUM DOSE OF PRALIDOXIME IS 1.8 GRAMS, ONCE THE MAXIMUM DOSE OF 2-PAM IS REACHED THE ATROPINE/2-PAM ANTIDOTE INJECTORS MUST NOT BE USED. THERE IS NO MAXIMUM DOSE OF ATROPINE INJECTORS

In the initial phase, triage will be initiated in the Hot Zone, continued in the warm zone, and performed only by trained personnel who are wearing appropriate Personal Protective Equipment (as determined by the Incident Commander). Patient decontamination will be simultaneous with and/or prior to treatment. Children should be decontaminated and have expedited transport off scene especially if they are demonstrating any signs and symptoms of exposure.

SLUDGEM + RESPIRATION and AGITATION

S – salivation (excessive drooling)

L – lacrimation (tearing)

U – urination

D – defecation / diarrhea

G – GI upset (cramps)

E – emesis (vomiting)

M – muscle (twitching, spasm, “bag of worms”)

RESPIRATION – difficulty breathing / distress (sob, wheezing)

AGITATION + CNS SIGNS – confusion, agitation, seizures, coma.

Antidote Dosing Schedules:

BLS – Adult Nerve Agent/Organophosphate Poisoning Antidote Protocol

Initial Adult Treatment

Signs & Symptoms	Atropine Dose Monitor Interval	Atropine/2-Pam Injector Dose	Monitor
Severe Respiratory Distress, Agitation SLUDGEM		3 Auto-injectors	Every 5 minutes
Respiratory Distress, SLUDGEM	1 Auto-injector	1 Auto-injector	Every 10 minutes
Asymptomatic NONE	None	None	Every 15 minutes

BLS – Pediatric Nerve Agent/Organophosphate Poisoning Antidote Protocol

This protocol applies to all appropriately trained ALS & BLS providers

CAUTION IS TO BE EXERCISED AT ALL TIMES. ALARM INFORMATION INCLUDING LOCATIONS, NUMBER OF PATIENTS, AND COMPLAINTS SHOULD BE INCLUDED IN THE SCENE SIZE-UP PRIOR TO ARRIVAL. DECONTAMINATION TO PREVENT OFF GASSING MUST BE PERFORMED PRIOR TO EMS ASSESSMENT AND TREATMENT. TREATMENT BY EMS IS TO BE PERFORMED IN THE COLD ZONE ONLY UNLESS APPROPRIATELY TRAINED AND EQUIPPED.

1. Atropen 0.5mg and 2mg auto-injectors are to be used only.

A. When specific signs and symptoms are present

AND

B. The scene has been described as the scene of a nerve agent release by local competent authority.

AND

C. Following orders from Medical Control

IMPORTANT NOTE:

CHILDREN MAY NOT PRESENT WITH THE TYPICAL ADULT SIGNS AND SYMPTOMS OF NERVE AGENT EXPOSURE.

SPECIFICALLY, INCREASED SECRETIONS AND MIOSIS ARE USUALLY ABSENT.

70-100% OF CHILDREN WILL PRESENT WITH SEVERE WEAKNESS AND HYPOTONIA.

CHILDREN ARE ALSO MORE LIKELY TO HAVE EARLIER AND MORE PROFOUND CNS SIGNS AND SYMPTOMS.

RESPIRATORY DEPRESSION AND SEIZURES ARE THE MOST COMMON CAUSES OF MORTALITY.

BLS – Pediatric Nerve Agent/Organophosphate Poisoning Antidote Protocol

1. If **severe** signs and symptoms are present in the child (3) three Atropen autoinjectors should be administered in rapid succession to achieve atropinization.
2. If mild signs and symptoms are present one to two units can be administered.
3. In all cases, remove secretions, maintain patient's airway, and if necessary and resources permit use artificial respirations.
4. If symptoms resolve, then only close monitoring is necessary.
5. If dermal exposure has occurred, decontamination is critical and should be done with standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve agents.
6. Diazepam (Valium) may be given *by ALS personnel* cautiously if convulsions are not controlled.
7. Documentation shall be done on triage tags. Each dose of Atropine should be recorded with an "A", and each dose of Diazepam with a "D".
8. If patients continue to exhibit signs and symptoms of nerve agent intoxication, they may continue to receive Atropine auto injector until symptoms cease.

In children, improvement in respiration either spontaneous or noted while artificial respiration is being given is evidence of adequate dosing of atropine.

In the initial phase, triage will be initiated in the Hot Zone, continued in the warm zone, and performed only by trained personnel who are wearing appropriate Personal Protective Equipment (as determined by the Incident Commander). Patient decontamination will be simultaneous with and/or prior to treatment. Children should be decontaminated and have expedited transport off scene especially if they are demonstrating any signs or symptoms of exposure.

The Atropen auto injector can be used in children 6 months to 9 years of age.

SLUDGEM + RESPIRATION AND CNS SIGNS AND SYMPTOMS

- S:** salivation (excessive drooling)
- L:** lacrimation (tearing)
- U:** urination
- D:** defecation
- G:** GI upset
- E:** emesis
- M:** muscle (cramps spasm fasciculation)

RESPIRATION: difficulty breathing/ distress (SOB/ wheezing)

CNS AND AGGITATION: confusion, agitation, seizures, coma

BLS – Pediatric Nerve Agent/Organophosphate Poisoning Antidote Protocol

ANTIDOTE DOSING SCHEDULE

INITIAL PEDIATRIC TREATMENT

EXPOSURE AND SIGNS AND SYMPTOMS = YES

TREATMENT GUIDELINE = Weight 0-40 LBS

INITIAL ATROPINE DOSE:

Atropen 0.5mg auto injector (**blue**) repeat every three (3) minutes as needed

EXPOSURE AND SIGNS AND SYMPTOMS = YES

TREATMENT GUIDELINE = Weight 40-90 LBS

INITIAL ATROPINE DOSE:

Atropen 2.0mg auto injector (**green**) repeat every three (3) minutes as needed

EXPOSURE AND SIGNS AND SYMPTOMS = NO

TREATMENT GUIDELINE = NONE

INITIAL ATROPINE DOSE: = Monitor Every Ten (10) Minutes

NOTE: IN SEVERE CASES OF NERVE AGENT INTOXICATION GIVE (3) DOSES IN RAPID SUCCESSION.

Nassau REMAC Supplement to NYS BLS Protocol M-4

Behavioral Emergencies

For Adult & Pediatric patients

Determine scene/situation safety, if an unsafe condition exists, retreat and obtain additional assistance.

When a patient is experiencing a behavioral emergency, in addition to following the steps outlined in State Protocol M-4, Nassau agencies should determine if the patient's medical category is Unstable or Stable. Primary medical evaluation is required for all patients.

(A) Medically Unstable Patient

Patients exhibiting the following should be considered medically unstable:

1. Acute mental status change and no psychiatric history
2. Patients who show evidence and/or give current history of significant overdose of drugs, poisons, alcohols or significant withdrawal from same
3. Patients with evidence or history of significant head injury
4. Patients who are obviously febrile
5. All patients with abnormal vital signs as indicated:

Pulse less than	55
greater than	120
Blood Pressure less than	90 systolic
greater than	180/120
Respiratory Rate less than	10
greater than	24

These patients must be transported to the closest appropriate hospital for medical stabilization. The first responding ambulance will assess safety factors and decide if the patient's behavior requires transportation by the Police Department.

(B) Medically Stable Patients

Violent or potentially dangerous emotionally disturbed patients who evidence no acute medical problem should be directly transported to the Nassau University Medical Center. Under Section 9.41 of the State Mental Hygiene Law, police officers who determine that persons are acting in a manner that is harmful to themselves or others may transport that person against their will to a certified psychiatric hospital.

The initial ambulance agency (if not the NCPD) will request patient transportation by the Nassau Police Department. If arrival of the NCPD ambulance is expected to be greater than 30 minutes, the first responding ambulance agency may transport the patient to Nassau University Medical Center if accompanied by trained police officer(s) and technicians.

For emotionally disturbed patients with no evidence of an acute medical problem:

If the decision is made that no transport is needed, the PCR must state in the Comments section the name of the police officer who authorized no transport.

If the NCPD Ambulance is requested to transport the patient, this must also be documented in the Comments section of the PCR.

The initial ambulance service must always remain with the patient until the arrival of the NCPD ambulance.

It is required that both the initial and NCPD ambulance complete a PCR. The initial ambulance service will leave the hospital and research copy of the PCR with the NCPD ambulance.

Document all physical and behavioral findings, medical control contact, and any other actions taken on the PCR

Nassau REMAC Supplemented Amputation

- I. Perform initial assessment.
- II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
**Manually stabilize the head and cervical spine if trauma
of the head and/or neck is suspected!**

- III. Place the patient in a position of comfort **only if doing so does not compromise stabilization of the head and cervical spine!**
- IV. Control the bleeding according to Protocol T - 2
- V. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol, T - 2!**
- VI. Wrap the stump with moist sterile dressings.
- VII. Cover the dressed stump with a dry bandage.
- VII. Preserve the amputated part as follows:
 - A. Moisten an appropriately sized sterile dressing with sterile saline solution.
 - B. Wrap the severed part in the moistened sterile dressing, preserving all amputated material.
 - C. Place the severed part in a water-tight container (i.e. sealed plastic bag).
 - D. Place the container on ice or cold packs (if available). **Do not freeze or use dry ice! Do not immerse the amputated part directly in water! Do not allow the amputated part to come in direct contact with ice!**
- XI. CFR manually stabilize, EMT immobilize the limb to prevent further injury.
- XII. Transport the amputated part with the patient.

Nassau Supplement

Transport to the closest appropriate Trauma Center. If the patient's condition is stable enough to tolerate transport to a Replant Center, contact Medical Control and request them to notify the Replant Center of your impending arrival.

Current Nassau Replant Centers (24/7 operations): Nassau University Medical Center
North Shore University Hospital - Manhasset
Winthrop University Hospital

Amputation, continued

Note:

Transportation of the patient should not be delayed to search for amputated parts! Leave word as to the patient's destination, and indicate how to preserve the amputated parts to the person in charge at the scene.

- XIII. Transport keeping the patient warm.
- XIV. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.
- XV. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).