

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8027.09
	PROGRAM DOCUMENT: Nerve Agent Exposure	Draft Date:	10/24/01
		Effective:	11/01/16
		Revised:	07/26/16
		Review:	09/01/18

 EMS Medical Director

 EMS Administrator

Purpose:

- A. To establish protocols for Emergency Medical Technicians (EMT) and Paramedics in treating nerve agent exposures. Indications include exposures to organophosphate compounds that produce the clinical triad of Salivation, Lacrimation, and Rhinorrhea in the setting of pupillary miosis (small pupils).

Authority:

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Division 9

Policy:

- A. This protocol is NOT a standing order. Any Paramedic wishing to utilize this protocol MUST obtain an activation order from either a Base Hospital Physician or the County Emergency Medical Services Medical Director. Once activation is obtained, the entire protocol is a standing order that applies to all Paramedics operating at the incident.
- B. ALL Providers will ensure personal safety by assuring adequate decontamination of victims and using appropriate personal protective equipment. Medical procedures within the exclusion zone will only be performed by personnel who have specific training to allow them to function in that area.
- C. The Atropine (2 mg) and 2-PAM (Pralidoxime Chloride – 600 mg) autoinjectors included in MARK I Nerve Agent Antidote Kits or DuoDote Auto-Injectors (Atropine 2.1mg and 2-PAM 600mg) will be used only by those Paramedics that have been trained in their use and have them available. Atropine may be administered intramuscular (IM) or intravenously (IV) in situations where MARK I or DuoDote Nerve Agent Antidote Kits are not available.
- D. Autoinjectors are NOT to be used in children under forty (40) Kg.
- E. EMT personnel that have been trained and equipped may self-administer MARK I or DuoDote Auto-Injectors on themselves as per the protocol under Advanced Life Support – under no circumstances are EMT personnel to administer any medications to others or self-administer medication in any other form than via autoinjectors under this protocol.

Protocol:

- A. **Potential Exposure;** No signs or symptoms:

BLS TREATMENT

Ensure adequate victim decontamination has occurred.
Wear personal protective equipment-universal precautions including eye protection.
Airway adjuncts as needed.
Oxygen- adjust flow and delivery mode as needed.

- Monitor respiratory status.

ALS TREATMENT

No drug therapy.
Monitor for development of any signs or symptoms.

- B. **Mild Exposure;** Any two (2) of the following symptoms: Miosis, Rhinorrhea, muscle fasciculation, excessive sweating unaccountable by activity.

BLS TREATMENT

Ensure adequate victim decontamination has occurred.
Wear personal protective equipment-universal precautions including eye protection.
Airway adjuncts as needed.
Supplemental O2 as necessary to maintain SpO2 > 94%. Use the lowest concentration and flow rate of O2 as possible.
Monitor respiratory status.
Transport.

ALS TREATMENT

Advanced airway adjuncts as needed.
MARK I: Administer one (1) Atropine (2mg) Auto-Injector IM and one (1) 2-PAM (600mg) Auto-Injector IM.

OR

DuoDote: Administer one (1) Auto-Injector (Atropine 2.1mg and 2-PAM 600mg)

OR

Atropine 2mg IV/IM
Initiate IV ACCESS with saline lock.
If needed, establish IV and titrate to systolic blood pressure of 90 - 100 mm Hg.
Cardiac monitoring, Pulse Oximetry, and Blood Glucose determination.

- C. **Moderate Exposure:** Symptoms of Mild Exposure plus shortness of breath, and/or wheezing.

BLS TREATMENT

Ensure adequate victim decontamination has occurred.

Wear personal protective equipment – universal precautions including eye protection.

Airway adjuncts as needed.

Supplemental O2 as necessary to maintain SpO2 > 94%. Use the lowest concentration and flow rate of O2 as possible.

- Monitor respiratory status.

Transport.

ALS TREATMENT

Advanced airway adjuncts as needed. Consider CPAP.

MARK I: Administer two (2) Atropine (4mg) and two (2) 2-PAM (1200mg) Auto-Injectors IM

OR

DuoDote: Administer two (2) Auto-Injectors (Atropine 4.2mg and 2-PAM 1200mg)

OR

Atropine 4mg IV/IM

Cardiac monitoring, Pulse Oximetry, and Blood Glucose determination.

Initiate IV ACCESS with saline lock.

If needed, establish IV and titrate to systolic blood pressure of 90 - 100 mm Hg.

- D. **Severe Exposure:** Signs and symptoms of Mild Exposure AND Unconsciousness or Seizures.

BLS TREATMENT

Ensure adequate victim decontamination has occurred.

Wear personal protective equipment – universal precautions including eye protection.

Airway adjuncts as needed.

Supplemental O2 as necessary to maintain SpO2 > 94%. Use the lowest concentration and flow rate of O2 as possible.

- Monitor respiratory status.

Transport.

ALS TREATMENT

Advanced airway adjuncts as needed. CPAP as needed.

MARK I: Administer three (3) Atropine (6mg) and three (3) 2-PAM (1800mg) Auto-Injectors IM
OR

DuoDote: Administer three (3) Auto-Injectors (Atropine 6.3mg and 2-PAM 1800mg)
OR

Atropine 6mg IV/IM

Cardiac monitoring, Pulse Oximetry, and Blood Glucose determination.

Initiate IV ACCESS with saline lock.

If needed, establish IV and titrate to systolic blood pressure of 90 - 100 mm Hg.

If **seizures continue**, treat per protocol, Decreased Sensorium, PD#8061.

Cross Reference:

Disaster Medical Services Plan, PD#7500

Hazardous Materials, PD#8029

Decreased Sensorium, PD#8061

Medication Administration, MARK I Nerve Agent Antidote Kit, PD#8826

Medication Administration, Duo-Dote Auto Injectors, PD #8836