

	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8027.12
	PROGRAM DOCUMENT:	Initial Date:	10/24/01
	Symptomatic Nerve Agent Exposure - Treatment	Last Approval Date:	09/23/24
		Effective Date:	05/01/25
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Signature on File

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EMS Medical Director

EMS Administrator

Purpose:

- A. To establish protocols for Paramedics in treating nerve agent exposures.
- B. To establish protocols for EMS personnel to self-administer nerve agent antidotes after exposure.

Authority:

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

Indications:

- A. Nerve Agent Exposure to the eyes, respiratory tract, or skin
- B. Signs and symptoms of Nerve Agent Exposure (mild to severe):

- | | |
|-----------------------------------|--------------------------------------|
| 1. Runny nose | 9. Abdominal cramps |
| 2. Chest tightness | 10. Involuntary urination/defecation |
| 3. Difficulty breathing | 11. Jerking/twitching/staggering |
| 4. Bronchospasm | 12. Headache |
| 5. Pinpoint pupils/blurred vision | 13. Drowsiness |
| 6. Drooling | 14. Coma |
| 7. Excessive Sweating | 15. Convulsions |
| 8. Nausea/vomiting | 16. Apnea |

C. Nerve Agent Exposure Mnemonic (SLUDGEM):

- Salivation
- Lacrimation
- Urination
- Defecation
- GI Distress
- Emesis
- Miosis/muscle fasciculation

Protocol:

- A. This protocol is NOT A STANDING ORDER. It shall be used in conjunction with PD# 8029 – Hazardous Materials. Any Paramedic wishing to utilize this protocol must obtain an activation order from a Base Hospital Physician. Once activation is obtained, the entire protocol is a standing order and applies to all Paramedics operating on the incident.
 - 1. EMS personnel that are equipped **may self-administer** nerve agent antidote kits when authorized and trained to do so. Under no circumstances are EMS personnel to administer any medications to others or self-administer medication in any other form than via auto-injectors under this protocol.
- B. EMS personnel shall not enter or provide treatment in the Exclusion Zone (Hot Zone) unless trained, equipped, and authorized to do so as per PD# 8029-Hazardous Materials.
- C. EMS personnel shall not use HazMat-specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA) unless trained, fit tested, and authorized to do so.
- D. Auto-injectors are NOT to be used on children under forty (40) kg.
- E. Do not transport patients until they are completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.
- F. The Atropine (2 mg) and 2-PAM (Pralidoxime Chloride – 600 mg) auto-injectors 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 intramuscularly (IM) or intravenously (IV) in situations where MARK I or DuoDote Nerve Agent Antidote Kits are not available.
- G. Nerve agent antidote medications are only given if the patient is showing signs and symptoms of nerve agent poisoning. They are not to be given prophylactically. A decrease in bronchospasm and respiratory secretions are the best indicators of a positive response to Atropine and Pralidoxime Chloride.

Nerve Agent Exposure Patient

- Remove all Clothing
- Blot off the agent
- Flush area with large amounts of water
- Cover the affected area

Mild Signs/Symptoms

Atropine

- 2 mg IV/IO/IM
- OR
- Administer one (1) atropine auto-injector IM
- May repeat every 3-5 minutes until symptoms improve

Pralidoxime Chloride

- If symptoms do not improve in 5 minutes, administer one (1) Pralidoxime Chloride auto-injector (600mg) IM, one (1) time only

Moderate Signs/Symptoms

Atropine

- 4 mg IV/IO/IM
- OR
- Administer two (2) Atropine auto-injectors IM
- May repeat every 305 minutes until symptoms improve

Pralidoxime Chloride

- If symptoms do not improve in 5 minutes, administer two (2) Pralidoxime Chloride auto-injectors (1200mg) IM, one (1) time only

- Establish vascular access
- (may administer up to 1000 ml NS if SBP < 90)
- Cardiac Monitor (if possible)

Severe Signs/Symptoms

Atropine

- 6 mg IV/IO/IM
- OR
- Administer three (3) Atropine auto-injectors IM
- May repeat every 3-5 minutes until symptoms improve

Pralidoxime (2-PAM)

- Administer three (3) Pralidoxime Chloride auto-injectors (1800 mg) IM

If seizures continue:
Refer to Policy 8061-
Decreased Sensorium

Cross Reference: PD#7500 – Disaster Medical Services Plan
PD#8029 – Hazardous Materials