Sierra – Sacramento Valley EMS Agency Treatment Protocol	E-8 (LALS)
Nerve Agent Treatment	
Approval: Troy M. Falck, MD – Medical Director	Effective: 06/01/2023
Approval: John Poland – Executive Director	Next Review: 01/2026

Refer to S-SV EMS Hazardous Material Incidents Policy (836)

Important caveats for medical responders:

- EMS personnel shall not enter or provide treatment in the Contamination Reduction Zone (Warm Zone) or Exclusion Zone (Hot Zone) unless trained, equipped and authorized to do so.
- EMS personnel shall not use Haz Mat specific personal protective equipment (PPE), including self-contained breathing apparatus (SCBA), unless trained, fit tested and authorized to do so.
- Do not transport pts until they have been completely decontaminated. If transport personnel become contaminated, they shall immediately undergo decontamination.

Treatment notes:

- A base/modified base hospital physician order must be obtained prior to utilizing this protocol for pt treatment. Once an order is obtained, the entire protocol becomes a standing order that applies to all authorized/trained EMS personnel operating at the incident.
- Atropine (2mg) and pralidoxime chloride (600mg) auto-injectors included in MARK I/DuoDote nerve agent antidote kits shall only be used by authorized/trained EMS personnel.
- AEMT II personnel may administer atropine IM/IV in situations where auto-injector nerve agent antidote kits are not available.
- EMS personnel may self-administer nerve agent antidote kits when authorized/trained to do so.
- Adult auto-injectors are not to be used in children under 40 Kg.
- Nerve agent antidote medications are only given if the pt is showing signs & 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.

Signs/Symptoms of Nerve Agent Exposure (mild to severe)

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

Nerve Agent Exposure Mnemonic (SLUDGEM)

Salivation
Lacrimation
Urination
Defecation
GI distress
Emesis
Miosis/muscle fasciculation

CHEMPACK

Description:

- The Centers for Disease Control and Prevention (CDC) established the CHEMPACK project resulting in the forward placement of sustainable caches of nerve agent antidotes.
- CHEMPACK caches have been placed at select sites throughout the S-SV EMS region and surrounding areas according to program requirements and effective transportation alternatives.
- EMS CHEMPACK caches contain enough antidote to treat approximately 454 patients. These caches contain primarily auto-injectors for rapid administration, but also contain some multi-dose vials for variable dosing (including pediatric patients) and prolonged treatment.
- Authorization to deploy CHEMPACK assets will be limited to an event that:

  1. Threatens the medical security of the community; and
  2. Places multiple lives at risk; and
  3. Is otherwise beyond local emergency response capabilities; and
  4. Will likely make the material medically necessary to save human life.

CHEMPACK requesting/deployment:

- A requestor is considered to be one of the following entities at the scene of a suspected nerve agent or organophosphate release with known, suspected, or potential contaminated, exposed, or affected patients:

  1. EMS prehospital personnel; or
  2. Incident Commander (IC); or
  3. Medical Group Supervisor (MGS).

- Potential requestors should be familiar with and follow their Operational Area (OA)/county specific CHEMPACK plans and procedures
- The S-SV EMS Duty Officer and applicable MHOAC Program(s) shall be notified as soon as possible in the event of a CHEMPACK request/deployment.

See page 3 for specific treatment

Nerve Agent Treatment

Treatment Notes

- Only treat pts located in the Exclusion Zone (Hot Zone) with IM auto-injectors

Nerve Agent Exposure Pt

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

Mild Signs/Symptoms	Moderate Signs/Symptoms	Severe Signs/Symptoms
Atropine • 2 mg IV or IM **(AEMT II)** **OR** • Administer one (1) atropine auto-injector IM • May repeat every 3-5 mins until symptoms improve	**Atropine** • 4 mg IV or IM **(AEMT II)** **OR** • Administer two (2) atropine auto-injectors IM • May repeat every 3-5 mins until symptoms improve	**Atropine** • 6 mg IV or IM **(AEMT II)** **OR** • Administer three (3) atropine auto-injectors IM • May repeat every 3-5 mins until symptoms improve
Pralidoxime chloride • If symptoms do not improve in 5 mins, administer one (1) Pralidoxime chloride auto injector (600 mg) IM, one (1) time only	**Pralidoxime chloride** • If symptoms do not improve in 5 mins, administer two (2) Pralidoxime chloride auto injectors (1200 mg) IM, one (1) time only	**Pralidoxime (2-PAM)** • Administer three (3) Pralidoxime chloride auto-injectors (1800 mg) IM

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

If continued seizure activity, Go to Seizure Protocol N-2