



Yolo County Emergency Medical Services Agency

Protocols

Revised Date: September 1, 2018

NERVE AGENT TREATMENT

Direction

- Any Paramedic/EMT wishing to utilize this Protocol **MUST** request CHEMPACK via the IC who will make the request through the Yolo Emergency Communications Agency (YECA). YECA will then notify the MOHAC to release/deploy/coordinate CHEMPACK.
- Auto-injectors are NOT to be used in children under 40 kg.
- EMT/Public Safety personnel that have been trained and equipped may utilize this Protocol to self-administer MARK I/DuoDote auto-injectors when authorized by their prescribing Physician.
- Paramedics and accredited EMTs may self-administer according to this Protocol.

Signs & Symptoms

- Unexplained runny nose
- Tightness in the chest, difficulty breathing
- Bronchospasm
- Pinpoint pupils resulting in blurred vision
- Drooling
- Excessive sweating
- Nausea and/or vomiting
- Involuntary urination and/or defecation
- Abdominal cramps
- Jerking, twitching and staggering
- Headache
- Drowsiness
- Coma
- Convulsions
- Apnea

SLUDGE is a mnemonic used when a Nerve Agent Exposure is suspected and stands for:

- **S**alivation
- **L**acrimation
- **U**rination
- **D**efecation
- **G**astrointestinal Pain & Gas
- **E**mesis

Zones

Exclusion Zone (Hot Zone)

Treat **only** the patients with Severe Exposure.
Only IM auto-injectors will be used in this area

Contamination Reduction Zone (Warm zone)

May treat patients with Mild to Severe Exposures.
Treat according to protocol and level of training

BLS

Remove all clothing
Blot off the agent
Flush area with large amounts of water
Cover the affected area
Assess vital signs
O₂, titrate SpO₂ to ≥ 94%
Assist ventilations as needed



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BLS (cont.)		
Mild Exposure	Moderate Exposure	Severe Exposure
1 Atropine IM auto-injector <ul style="list-style-type: none"> May repeat every 3 - 5 minutes 1 Pralidoxime (2-PAM) 600 mg IM auto-injector	2 Atropine IM auto-injectors <ul style="list-style-type: none"> May repeat every 3 - 5 minutes 1 Pralidoxime (2-PAM) 600 mg IM auto-injector	2 Atropine IM auto-injectors <ul style="list-style-type: none"> May repeat every 3 - 5 minutes 1 Pralidoxime (2-PAM) 600 mg IM auto-injector
If symptoms do not improve within 5 minutes		
1 Pralidoxime (2-PAM) 600 mg IM auto-injector <ul style="list-style-type: none"> No repeat 	2 Pralidoxime (2-PAM) 1200 mg IM auto-injectors <ul style="list-style-type: none"> No repeat 	3 Pralidoxime (2-PAM) 1800 mg IM auto-injectors <ul style="list-style-type: none"> No repeat
ALS		
If auto-injector Nerve Agent Antidote Kits are not available		
Cardiac Monitor, Waveform EtCO ₂ , Vascular Access		
Atropine 2 mg IV/IO <ul style="list-style-type: none"> May repeat every 3 - 5 minutes 	Atropine 4 mg IV/IO <ul style="list-style-type: none"> May repeat every 3 - 5 minutes 	Atropine 6 mg IV/IO <ul style="list-style-type: none"> May repeat every 3 - 5 minutes
Fluid Bolus NS 250 mL IV/IO <ul style="list-style-type: none"> Repeat as needed to maintain SBP \geq 90 		
Consider		
<ul style="list-style-type: none"> A decrease in bronchospasm and respiratory secretions are the best indicators of a positive response to Atropine and 2-PAM therapy Nerve Agent Antidote medications are only given if signs and symptoms are present <p style="text-align: center;">They are not to be given prophylactically</p> <ul style="list-style-type: none"> Only specially trained Paramedic/accredited EMT personnel may administer Nerve Agent Antidote medications This treatment Protocol is to be used in conjunction with the YEMSA Hazardous Material or Weapons of Mass Destruction protocol 		