



EMS System for Metropolitan Oklahoma City and Tulsa 2019 Medical Control Board Treatment Protocols



EMS SECTION

Approved 9/12/18, Effective 1/15/19, replaces all prior versions

15E - NERVE AGENTS

EMERGENCY MEDICAL DISPATCH
EMERGENCY MEDICAL RESPONDER
EMT-BASIC
EMT-INTERMEDIATE 85
ADVANCED EMT
PARAMEDIC

NERVE AGENT EXPOSURES

Comments

1. Nerve agent exposure should be considered at multiple causality incidents in which patients are exhibiting the DUMBELS constellation of symptoms and signs. In particular, nerve agent exposure should be considered while responding to any reports of multiple casualties at a location of high occupancy (should malls, stadiums, etc), high visibility (crowds gathered for public speeches, protests, etc), or high political symbolism (places of worship, governmental offices, etc).
2. Immediate countermeasures to nerve agent exposure with developing DUMBELS symptoms and signs are administration of the DuoDote[®] auto-injectors, auto-injector-as indicated and evacuation from the exposure are for decontamination.
3. Any personnel exposed to a nerve agent and requiring treatment with the DuoDote[®] auto-injectors is restricted from providing patient care and should be promptly transported for emergency physician evaluation.
4. Atropine is utilized in nerve agent exposure treatment to dry secretions, reduce bronchospasm, and decrease gastrointestinal motility. If significant bronchorrhea continues after three DuoDote[®] auto-injector have been administered in the adult patient, further atropine may be given by paramedic as follows until the bronchorrhea subsides:

Adult – 1 mg atropine IVP every 3-5 minutes

Adult – 2 mg atropine IM every 5 minutes

5. In the case of nerve agent exposure with bronchorrhea, there is no maximum atropine dosing in the adult patient, though atropine should be withheld in the case of developing ventricular tachydysrhythmias. In this case, treat the ventricular tachydysrhythmia according to 5G Tachycardia – Unstable – Adult & Pediatric or 4G Ventricular Fibrillation/Pulseless Ventricular Tachycardia – Adult & Pediatric as applicable.



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PROTOCOL 15E: Nerve Agents, cont.

6. DuoDote[®] is utilized in nerve agent exposure to reverse the nerve agent effect on acetylcholinesterase, the enzyme responsible for neurotransmitter regulation. Refer also to Protocol 16M for self/buddy care using DuoDote[®].
7. Patients contaminated by vapor-only nerve agent exposures should be decontaminated by clothing removal (dry decon). Patients contaminated by liquid nerve agent exposures should be decontaminated by clothing removal and thoroughly washed with soap and water (wet decon).
8. In the absence of DUMBELS symptoms and signs, nerve agent exposure has not occurred. The DuoDote[®] auto-injectors are not authorized for patients not exhibiting DUMBELS symptoms and signs.
9. Pediatric patients (<25 kg) with DUMBELS symptoms and signs in the setting of suspected nerve agent exposures should be treated with one DuoDote[®] auto-injector kit and OLMCP should be contacted for further direction in relation to any further atropine and/or 2-PAM usage.
10. Patients treated with DuoDote[®] auto-injector kits should either have the auto-injector hooked to their clothing or a prominent vertical mark on their forehead for each kit administered to indicate to further healthcare providers the number of DuoDote[®] auto-injector kits the patient has received.



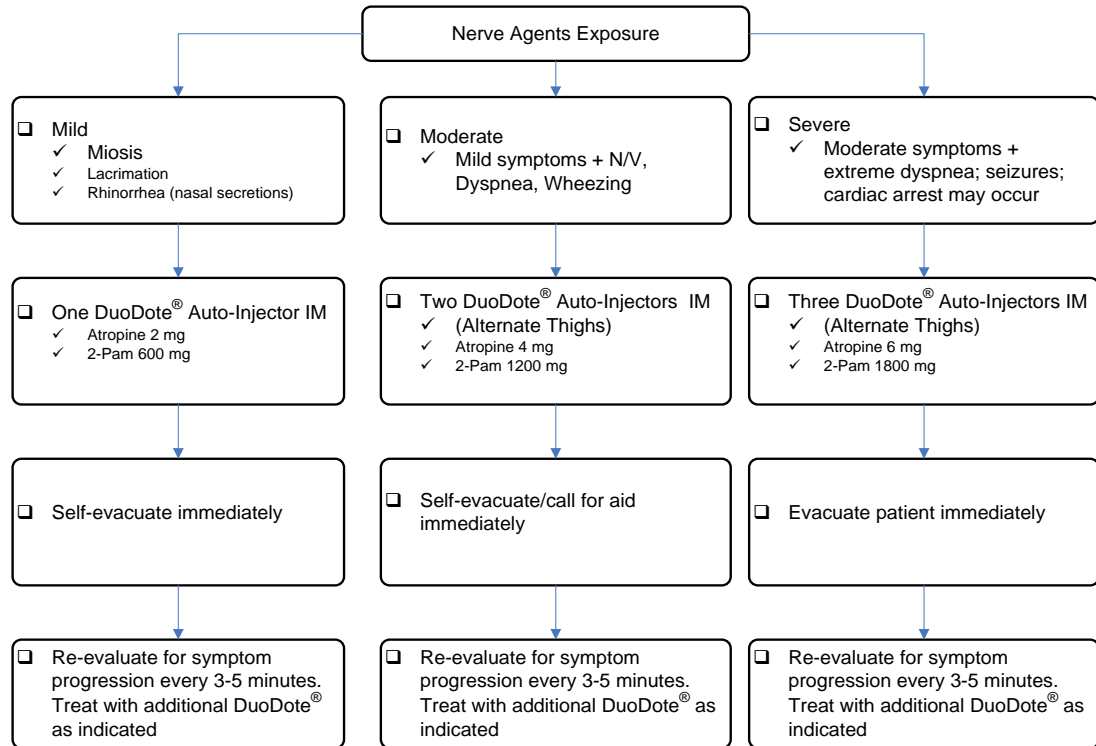
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LOOK FOR “DUMBELS” SIGNS AND SYMPTOMS

- D: DIARRHEA
- U: URINATION
- M: MIOSIS (PINPOINT PUPILS)
- B: BRONCHOSPASM, BRONCHORRHEA (COPIOUS RESPIRATORY SECRETIONS)
- E: EMESIS (NAUSEA/VOMITING)
- L: LACRIMATION (TEARING)
- S: SALIVATION

Additional resources regarding nerve agents can primarily be accessed through the Centers for Disease Control at www.bt.cdc.gov/agent/nerve.

National Disaster Life Support training also includes nerve agent education in:
Basic Disaster Life Support (one day classroom course)
Advanced Disaster Life Support (two day classroom/practical exercise course)