**Boulder County Hazardous Materials Team**

**Organophosphate and Nerve Agent Poisoning**

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| Guideline Number | 4005 |
| Approved By | Advisory Committee |
| Date | 4/13/22; 7-15-2022 |

**Scope**: This information applies to all Boulder County Hazardous Materials Team personnel trained as HAZMAT Tox-Medics.

**Purpose**: This Standard Operating Procedure provides guidance to Boulder County Hazardous Materials Team HAZMAT Tox-Medic personnel on how to manage incidents where organophosphate or nerve agent poisoning is suspected.

**Guideline**:

* Primary survey and resuscitation:
  + Airway- Continual suctioning of the airway may be needed because of sialorrhea and/or bronchorrhea.
  + Breathing- Ventilate with 100% FiO2
  + Circulation- Place on monitor and watch for hemodynamically unstable bradycardias
  + Disability- Prepare for seizure activity, treat first with a benzodiazepine, if seizures are refractory they may respond to atropine and pralidoxime (2-PAM).
  + Exposure- Remove clothing and decon the patient with mild soap and water, if soap is not immediately available do not delay decontamination with water.
* Treatment Paradigm
* Atropine:
  + ADULT: 2mg IV/IO given q5 min until bronchorrhea, bronchospasm, and bradycardia symptoms resolve.
  + Pediatric: 0.01-0.04 mg/kg given q5 min until bronchorrhea, bronchospasm, and bradycardia symptoms resolve
* Pralidoxime (2-PAM):
  + Adult: 1-2g given IV/IO over 15-30 minutes, rapid IV push can cause laryngospasm or muscle rigidity. Alternate dose IM is 600mg and may be repeated Q15 min for mild/moderate symptoms to max dose of 1800mg. Patients with severe symptoms can receive the full 1800mg in rapid succession.
  + Pediatric: 50mg/kg up to 2g IV/IO given over 15-30 minutes. Alternate dose IM is 50mg/kg up to 1800mg and may be repeated Q15 min for mild/moderate symptoms to max dose of 1800mg. Patients with severe symptoms can receive the full pediatric dose in rapid succession.
* DuoDote Autoinjector:
  + The autoinjector contains 2.1mg Atropine and 600mg 2-PAM
* Basics- Continue to reassess ABCs
* Change Catabolism- Not applicable
* Distribute Differently- Not applicable
* Enhance Elimination- Not applicable

Reference

AHLS Manual, 5th Edition

Boulder County EMS Protocols

Denver Metro EMS Protocols