

	<b>COUNTY OF SACRAMENTO</b> EMERGENCY MEDICAL SERVICES AGENCY	Document #	8836.06
	<u>PROGRAM DOCUMENT:</u> <b>Medication Administration; DuoDote Auto-Injectors</b>	Initial Date:	03/01/12
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 EMS Medical Director

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 EMS Administrator

**Purpose:**

- A. To serve as a BLS skill guideline for utilizing a DuoDote Auto-Injector, Nerve Agent Antidote Kit.

**Authority:**

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

**Special Note:**

- A. EMS providers should not enter any contaminated area if there is any suspected hazardous materials contamination, EMS providers should immediately activate a Fire Hazmat Response by contacting the Sacramento Regional Fire/EMS Communications Center (SRFECC).

**Guideline:**

- A. EMT personnel that have been trained and equipped may self-administer MARK I or DuoDote Auto-Injectors on themselves as per the protocol under Advanced Life Support – under no circumstances are EMT personnel to administer any medications to others or self-administer medication in any other form than via auto injectors under this protocol.
- B. Medication Administration, DuoDote Auto-Injectors Nerve Agent Antidote Kit, involves the administration of Atropine (2.1 mg) and 2-PAM (Pralidoxime Chloride – 600 mg) via auto injectors to a victim of nerve agent exposure or organophosphate poisoning.
- C. The Nerve Agent Antidote Kit, DuoDote, is an antidote used by the U.S. Military in the treatment of nerve agent poisoning. Description: The DuoDote kit consists of a dual-chamber, single injection of Atropine and 2-PAM in a 2.7 ml solution.
- D. Nerve Agents include Tabun (GA), Sarin (GB), Soman (GD), GF, and VX.
- E. Annual training on agency specific device.

**Indications:**

- A. Nerve Agent Exposure to the eyes, respiratory tract, or skin.
- B. As per Nerve Agent Exposure Policy Document (PD) #8027.

**Contraindications:**

- A. Patients under 40 kg.

**Relative Contraindications:**

- A. Patients with poor muscle mass at injection site.
- B. Asymptomatic nerve agent exposure.

**Equipment:**

- A. DuoDote Auto-Injector Nerve Agent Antidote Kit.

**Procedure:**

- A. Position the patient on his or her side (recovery position)
- B. Determine number of previous DuoDote Auto-Injector Nerve Agent Antidotes administrations to patient for this exposure.
- C. Determine injection site:
  - 1. Thigh injection area – the thigh injection site is the area about one hand's width above the knee to one hand's width below the hip joint, into a large muscle and away from any bone.
  - 2. Buttocks - if the patient is thinly built, then the injections should be administered into the upper outer quarter (quadrant) of the buttocks to avoid injury to the femur.
- D. Position yourself near the injection site.
- E. With your dominant hand, hold the auto-injector with the Green Tip pointed downward.
- F. Remove the Gray Safety Release, taking care never to touch the Green Tip.
- G. Keep fingers clear of both ends. Auto-Injector is now armed and ready for injection.
- H. Select site of mid-outer thigh.
- I. Swing and firmly push Green Tip straight down (at a 90° angle) against mid-outer thigh, continuing to push firmly until you feel the auto-injector trigger.
- J. After the DuoDote Auto-Injector triggers, hold it firmly in place against the injection site for 10 seconds.
- K. After injection, remove DuoDote Auto-Injector from thigh and inspect the Green Tip; if the needle is visible, then the injection was successful. If the needle is not visible, make sure the Gray Safety release is removed and repeat the preceding injection steps.
- L. Push the exposed needle against a hard surface until the needle bends back then put the used auto-injector back inside the plastic pouch.
- M. Keep used auto-injector(s) with the patient so other medical personnel will be aware of how many injections were administered.
- N. Repeat the above steps using the second and third sets of DuoDote Auto-Injectors as necessary.
- O. Document doses given as appropriate to the situation (on triage tag and / or patient care report).
- P. Massage the injection site if time permits.

**Potential Complications:**

- A. Over Atropination
- B. Accidental injection
- C. Localized trauma at injection site from injection.

## **Drug Dosage Administration:**

### **Nerve Agent Exposure:**

- A. DuoDote Auto-Injector - (Atropine 2.1 mg and 2-PAM 600 mg):
  - 1. Mild Exposure – administer one (1) DuoDote Auto-Injector (IM). If after 10 to 15 minutes, the patient does not develop any severe symptoms, no additional DuoDotes are recommended.
  - 2. Moderate Exposure – administer two (2) DuoDote Auto-Injectors IM.
  - 3. Severe Exposure – administer three (3) DuoDote Auto-Injectors IM. No more than three (3) doses of DuoDotes.
- B. Additional supportive clinical care:
  - 1. Emergency care of the severely poisoned patient should include suctioning of oral and bronchial secretions, maintenance of a patent airway, supplemental oxygen, and advanced airways, if necessary.
  - 2. If patient is seizing, refer to Decreased Sensorium Protocol, PD# 8061.

### **Precautions and Considerations:**

- A. It is important that the injections be given into a large muscle area. If the patient is thinly built, and has insufficient muscle mass in the outer thigh area, then the injections should be administered into the upper outer quarter (quadrant) of the buttocks to avoid injury to the femur. The outer quarter of the buttocks should be used to avoid potential nerve damage.
- B. Accidental injections into the hand WILL NOT deliver an effective dose of the antidote, especially if the needle goes through the hand.
- C. Squat, DO NOT kneel, when administering nerve agent antidotes to patients. Kneeling may force the chemical agent into or through your protective clothing.

**Cross Reference:** Nerve Agent Exposure, PD# 8027  
Decreased Sensorium, PD# 8061