

Subject: Administration- ALS Provider

Pralidoxime (2-PAM) and Mark I Kit (Autoinjector) Administration

Associated Policies:

- I. Authority and reference (incorporated herein by reference)
 - A. Division 2.5 of the Health and Safety Code
 - B. California Code of Regulations, Title 22
 - C. North Coast Emergency Medical Services (NCEMS) Policies and Procedures

II. Purpose

Nerve Gas auto-injectors are to be used when EMS personnel or patients are exposed to nerve agents (Sarin, Soman, Tabun, Vx) and have signs and symptoms of nerve agent exposure. Pralidoxime chloride is only to be administered by EMS personnel trained in its use and employed by a North Coast EMS 2-PAM and Mark I Kit authorized ALS provider per North Coast EMS policy 6520.

III. Equipment

- A. MARK I auto-injector antidote kit containing -
 - 1. **Atropine** auto-injector (2 mg in 0.7 cc.)
 - 2. **Pralidoxime Chloride** auto-injector – 2-PAM Cl (600 mg in 2 cc.)

MARK I antidote kit



IV. Procedure

A. **Injection Site Selection**

- 1. The injection site for administration is normally in the **outer thigh muscle** (Figure 1). It is important that the injections be given into a **LARGE** muscle area.
- 2. If the individual is thinly-built, then the injections should be administered into the **upper outer quadrant** of the buttocks (Figure 2).

Figure 1: Outer Thigh Muscle

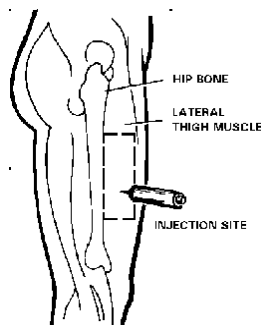
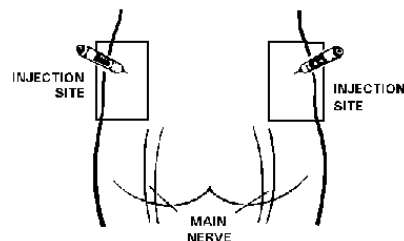


Figure 2: Upper Outer Quadrant



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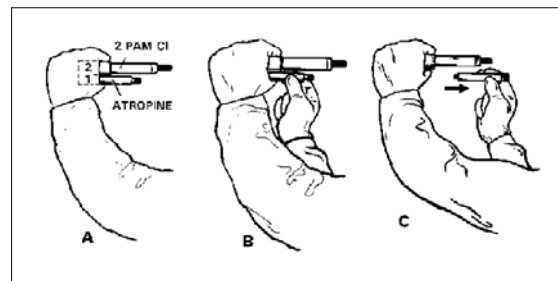
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B. *Arming the Auto-injector*

- 1.Immediately put on your protective mask.
- 2.Remove the antidote kit.
- 3.With your non-dominant hand, hold the auto-injectors by the plastic clip so that the larger auto-injector is on top (Figure 3A) and both are positioned in front of you at eye level. With your dominant hand grasp the **Atropine** auto-injector (the smaller of the two) with the thumb and first two fingers (Figure 3B). DO NOT cover or hold the needle end with your hand, thumb, or fingers, you might accidentally inject yourself.
- 4.Pull the injector out of the clip with a smooth motion (Figure 3C). **The auto-injector is now armed.**

Figure 3: *Removing Atropine auto-injector from the clip*



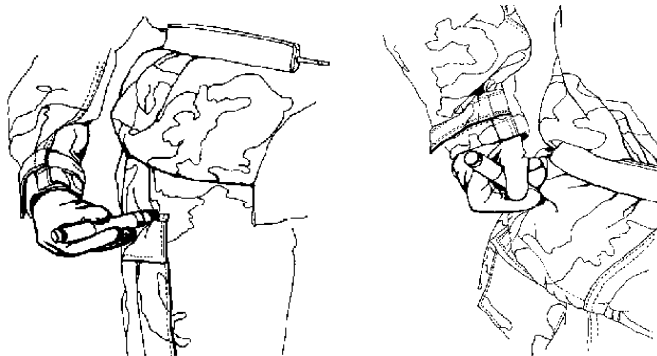
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C. Administering the antidote to yourself:

1. Remove safety cap (gray on 2-Pam Cl; Yellow on Atropine) if applicable. Do not touch the colored end of the injector after removing the safety cap, since the injector can and will function at this point.
2. Hold the auto-injector with your thumb and two fingers (pencil writing position). **Be careful not to inject yourself in the hand!**
3. Position the green (needle) end of the injector against the injection site (thigh or buttocks, see Figure 4). **DO NOT** inject into areas close to the hip, knee, or femur. Apply firm, even pressure (not jabbing motion) to the injector until it automatically plunges the needle into your thigh or buttocks. Firm pressure automatically triggers the coiled spring mechanism. The needle pierces through the clothing into the muscle and at the same time injects the antidote into the muscle tissue.
4. Hold the injector firmly in place for at least 10 seconds and then carefully remove the auto-injector from injection site.

Figure 4: *Thigh and Buttocks sites for self-administration*



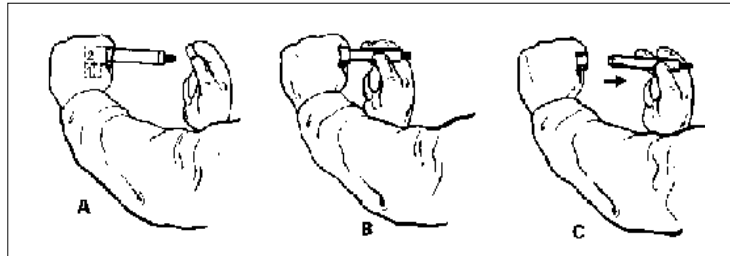
5. Next pull the **Pralidoxime Chloride** (2-Pam Cl) auto-injector (the larger of the two) out of the clip, see Figure 5.
6. Inject yourself in the same manner as the steps above, holding the black (needle) end against your outer thigh or buttocks, see Figure 4.
7. Massage the injection sites, if time permits.
8. After administering the first set of injections, you should initiate decontamination procedures, as necessary, and put on any remaining protective clothing.
9. Refer to Nerve Agent Antidote Dosages policy 5435 for dosing and re-dosing.

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Figure 5: *Removing 2-Pam
Cl auto-injector from clip*



D. Treatment of casualties in the HOT Zone:

1. Squat, DO NOT kneel, when administering treatment, see Figure Kneeling may force the chemical agent into or through your protective clothing.
2. Mask the casualty.
3. Position the casualty in the recovery position and position yourself near the casualty's thigh.
4. Administer the auto-injectors as described above. Multiple doses of Atropine may be needed, refer to North Coast EMS Nerve Agent Antidote Dosages policy 5435. for dosing and re-dosing.

Figure 6: *Thigh and Buttock administration to a
casualty*




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**PLEASE NOTE- A PUBLIC SAFETY AGENCY OR PRIVATE SECTOR
AMBULANCE SERVICE IS NOT ALLOWED TO FUNCTION AS A SERVICE
PROVIDER OF 2-PAM OR THE MARK I KIT IN THE NORTH COAST EMS
REGION UNLESS THAT AGENCY HAS BEEN APPROVED. FUNCTIONING
WITHOUT A CURRENT AND VALID PARTICIPATION AGREEMENT WITH
NORTH COAST EMS IS A VIOLATION OF CALIFORNIA LAWS.**

REV. 6/1/12

POLICY #6548.doc

Approved: 

Approved as to Form: 