



**CNY\*EMS**  
Central New York  
Regional Emergency Medical Services  
**Protocol**

Serving: Cayuga, Cortland, Onondaga, Oswego and Tompkins  
Counties

*Supercedes/Updates:*

**No. 03-03**

**Date: 3/20/03**

**Re: Mark-1 Kit**

**Page 1 of 2**

---

**Purpose:** The Mark I consists of 2 antidotes to be used in instances of exposures to a nerve or organophosphate agent in a disaster situation and as part of an MMRS response or a Municipal Response Plan.

**Use:** The Mark I is to be used only if you are part of the MMRS and or a Municipal Response Plan.

**Contents:** One Atropine Auto-Injector (2 mg total dose per injection).  
One 2-PAM Auto-Injector (2PAM CL; Pralidoxime chloride 600 mgs total dose)

The Mark I Kit is only to be utilized under direct authority of Medical Control.

**NOTE:**

- **These injectors must never be used as a prophylaxis for exposure.**
- **There is to be no self-administration of the antidote, unless you show symptoms and no one else is available to administer.**

**I: Mark I Kit**

- (a) To be used only in a disaster situation and only if you are a part of the MMRS and or a Municipal Response system.
- (b) The Mark I Kit is only to be utilized under direct authority of Medical Control.

**II: Auto Injector Use**

- (1) Auto-injectors contain a pre-measured dose.
- (2) Atropine and Pralidoxime (2 PAM CL) auto-injectors may be administered by qualified emergency personnel or designated emergency responders. These providers should have adequate training in on-site recognition and treatment of intoxication caused by nerve and or organophosphate agent. This is specific to the disaster setting.
- (3) Medical treatment aims to combat respiratory distress and seizures.
- (4) It is a concern that the use of auto-injectors could lead to administration of inappropriate and harmful doses during a non-chemical incident or minimal exposure.

**III: Indications for use of the Auto-Injectors**

- (a) To avoid unjustified use, the auto-injectors are to be utilized only if the patient presents with some or all of the signs and symptoms of nerve agent intoxication cited below.
- (b) The Atropine and 2PAM CL auto injectors should only be used by state-certified Certified First Responders and Emergency Medical Technicians after the following events have occurred:
  - 1) the recognition of the existence of a potential chemical or organophosphate agent release in the area.
  - 2) some or all of the signs and symptoms of nerve agent poisoning cited below are present:

## **SLUDGEM + RESPIRATIONS and AGITATION**

**S**-salivation (excessive drooling)

**L**- lacrimation (tearing)

**U**- urination

**D**- defecation (diarrhea)

**G**- GI upset (cramps)

**E**- emesis (vomiting)

**M**- muscle (twitching, spasm, "bag of worms")

+

**RESPIRATIONS** – difficulty breathing / distress (sob, wheezing)

+

**AGITATION + CNS SIGNS** – confusion, agitation, seizures, coma

Atropine must be given first: **do not give anything else until the effects of atropine begin to appear (decreased secretion and increased heart rate)**. Only after the effects of atropine are seen can you then give 2-PAM CL.

If signs and symptoms resolve, then only monitoring is necessary.

**If severe signs and symptoms are present; three (3) Atropine auto-injectors and three (3) 2-PAM CL auto-injectors should be administered in rapid succession (stacked).**

### **IV: Treatments should include**

- (1) Removal of secretions
- (2) Maintain an open airway
- (3) Use artificial ventilations if necessary and possible
- (4) Repeat atropine immediately as needed
- (5) Pralidoxime (2-Pam CL) is most effective if administered as soon as possible after the poisoning but not before atropine, especially for severe exposures
- (6) If available Diazepam (Valium) may be cautiously given, if convulsions are not controlled
- (7) When the nerve agent has been ingested, exposure may continue for some time due to slow absorption from the bowel, and fatal relapses have been reported after initial improvement. Continued medical monitoring and transport is mandatory
- (8) If dermal exposure has occurred, decontamination is critical and should be done with the standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve agent or organophosphate exposures.
- (9) Recommended pediatric auto-injector doses.

**<2Years of age: One Mark I auto-injector kit**

**2-7 Years old: One Mark I auto-injector kit**

**8-13 Years old: Two Mark I auto-injector kits**