



New York State
Department of Health
Bureau of Emergency Medical Services

POLICY STATEMENT

Supercedes/Updates:

No. 02-08

Date: 07/02/02

Re: Mark I Kits

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Use of “Mark I Kits” (AtroPen® Auto-Injector & Pralidoxime Chloride Injector)

Purpose:

To provide EMS agencies with guidelines on the appropriate use of “Mark I Kits”. The “Mark I Kit” contains antidotes to be used in instances of exposure to a nerve or organophosphate agent. The Mark I kit consists of two autoinjectors containing Atropine Sulfate and Pralidoxime Chloride.

Key Provision:

Only those EMS services that are part of the Metropolitan Medical Response Systems (MMRS) and/or a Municipal response Plans are authorized to purchase and utilize the specialized equipment and medications needed in WMD incidents. This includes “Mark I Kits”.

Guidelines:

The guidelines for the use of the “Mark I Kits” were developed by the Bio-Terrorism sub-committee of the State Emergency Medical Advisory Committee (SEMAC). They were then adopted by the SEMAC as well as the State Emergency medical Services Council (SEMSCO), to provide guidance to EMS agencies who are a part of the Metropolitan medical Response System (MMRS) and/or a Municipal Response Plan.

There are five provisions in the guidelines:

1. An EMS agency must be participating in an MMRS or Municipal Response Plan for WMD incidents.
2. The decision to utilize the “Mark I” antidote must be done under the authority of medical control.
3. At a minimum, an EMS provider must be trained to the WMD awareness level. The

awareness program should be a national training program or modeled after one of the training programs developed by the Department of Defense (DOD), Department of

Justice (DOJ) or Federal Emergency Management Agency (FEMA).

4. The “Mark I Kit” is not to be used for self-administration or prophylaxis.

5. Use of the “Mark I Kit” is to be based on signs and symptoms of the patient. The Suspicion or identified presence of a nerve agent is not sufficient reason to administer these medications.

Attached to this policy and guideline is a model “Mark I PROTOCOL” based upon existing metropolitan response system protocols and various federal agency recommendations for administration. This protocol is not mandated and was not specifically approved by the SEMAC. This protocol is provided to assist a Regional medical Advisory Committee (REMAC) or municipal system Medical Director in developing a local protocol. **This model is not intended for independent use by an EMS agency.** It may be used only with medical authorization and participation of the agency in a municipal or MMRS plan.

There are currently five metropolitan areas that are part of the MMRS program in New York State:

New York City
Yonkers
Buffalo
Rochester
Syracuse

If your agency is included in an MMRS or municipal response plan you may have received training and formal protocols for WMD response, including the use of the “Mark I Kits”. This guideline, if different from the plan in which you participate, is not meant to supercede your local protocol, medical control or policy.

This policy has been distributed to your REMAC, Regional EMS Councils and County Emergency Management authorities.

Issued and Authorized by:
Edward G. Wronski, Director
Bureau of EMS

MODEL PROTOCOL FOR THE USE OF MARK I KITS

Purpose: These are antidotes to be used in instances of exposure to a nerve or organophosphate agent.

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

Contents: (1) Atropine Auto-Injector (2 mg total dose per injection)
(2) 2-PAM (2-PAM CL; pralidoxime chloride) 600 mgs. total dose per injection.

- **NOTE: These injectors are not to be used as a prophylactic modality. There is to be no self-administration of the antidote.**

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

- (a) Pre measured doses in auto-injectors should be safe for most adults.
- (b) Atropine auto-injector and Pralidoxime (2 PAM CL) may be administered by qualified emergency personnel and designated emergency responders who have had adequate training in on-site recognition and treatment of nerve and or organophosphate agent intoxication in the event of a chemical release. This is specific to the disaster setting.
- (c) Medical treatment is directed to relieving respiratory distress and alleviating seizures.

III: Indications for use of the Auto Injectors

- (a) It is a concern that the use of auto-injectors could lead to administration of inappropriate and harmful doses during a non-chemical agent or minimal exposure situations. The auto-injectors are to be used only if the patient presents with SLUDGEM + RESPIRATIONS and AGITATION.
- (b) The Atropine and 2-PAM CL auto injectors should be used by qualified emergency medical personnel and designated emergency responders only after the following events have occurred:
 - 1) The recognition of the existence of a potential chemical or organophosphate agent release in an area.
 - 2) Some or all of the symptoms of the nerve agent poisoning cited below are present:

SLUDGEM + RESPIRATION 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”)

+

RESPIRATION – difficulty breathing / distress (sob, wheezing)

+

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

- 3) Atropine must be given first, ***do not give anything else until the effects of atropine become apparent.*** Only when the effects of the atropine have been seen can you then give 2 – PAM CL.
- 4) If symptoms resolve, then only monitoring is necessary.
- 5) If severe signs and symptoms are present; three (3) Atropine auto-injectors and three (3) 2-PAM CL injectors should be administered in rapid succession (stacked).
 1. Remove secretions
 2. Maintain an open airway
 3. Use artificial ventilation in necessary and possible
 4. Repeat Atropine immediately as directed
- 6) Pralidoxime (2-PAM CL) is most effective if administered immediately after the poisoning but not before Atropine, especially for severe exposures.
- 7) If available Diazepam (Valium) may be cautiously given, under direct medical control, if convulsions are not controlled.
- 8) When the nerve agent has been ingested, exposure may continue for some time due to slow absorption from the lower bowel, and fatal relapses have been reported after initial improvement. Continued medical monitoring and transport is mandatory.
- 9) If dermal exposure has occurred, decontamination is critical and should be done with standard decontamination procedures. Patient monitoring should be directed to the same signs and symptoms as with all nerve or organophosphate exposures.

7/2/2002