



# WMD-Nerve Agent Protocol



## History

- Exposure to chemical, biologic, radiologic, or nuclear hazard
- Potential exposure to unknown substance/hazard

## Signs and Symptoms

- **S**alivation
- **L**acrimation
- **U**rination; increased, loss of control
- **D**efecation / Diarrhea
- **G**I Upset; Abdominal pain / cramping
- **E**mesis
- **M**uscle Twitching
- Seizure Activity
- Respiratory Arrest

## Differential

- Nerve agent exposure (e.g., VX, Sarin, Soman, etc.)
- Organophosphate exposure (pesticide)
- Vesicant exposure (e.g., Mustard Gas, etc.)
- Respiratory Irritant Exposure (e.g., Hydrogen Sulfide, Ammonia, Chlorine, etc.)

Call for help/ additional resources  
Stage until scene safe

Obtain history of exposure  
Observe for specific toxidromes  
Initiate triage and/or decontamination as indicated.

Contact  
Carolinas Poison Control  
1-800-222-1222  
Or  
Agency Specific Number

Symptom Severity

Asymptomatic

Monitor and Reassess  
Every 15 minutes for symptoms  
Initiate Treatment per Appropriate Arm

**Minor Symptoms:**  
Respiratory Distress + SLUDGEM

IV or IO Access Protocol UP 6

**Nerve Agent Kit IM**  
**2 Doses Rapidly**  
*if available*

**Major Symptoms:**  
Altered Mental Status, Seizures,  
Respiratory Distress, Respiratory Arrest

IV or IO Access Protocol UP 6

**Nerve Agent Kit IM**  
**3 Doses Rapidly**  
*if available*

**Atropine 2 mg IV / IO / IM**  
**Pediatric: See Pearls**  
**IV / IO / IM**

Repeat every 3 to 5 minutes until symptoms resolve

**Pralidoxime (2PAM)**  
**600 mg IV / IO / IM**  
**Pediatric: 15 – 25 mg / kg**  
**IV / IO / IM**  
Over 30 minutes

Seizure Protocol UP 13

## CDC/ ASPR CHEMPACK Program

NC -57 EMS containers  
-43 locations

Almost all citizens within 50 miles of CHEMPACK  
See Page 2 and Pearls

Multiple Patients

YES

NO

Consider  
Activation and deployment of CHEMPACK

**CHEMPACK ACTIVATION:**  
(insert local number)

**Healthcare Coalition Activation**  
(insert local number)

Notify Destination or  
Contact Medical Control

Toxic-Environmental Protocol Section



# WMD-Nerve Agent Protocol



## Pearls

- **Recommended Exam: Mental Status, Skin, HEENT, Heart, Lungs, Gastrointestinal, Neuro**
- **Follow local HAZMAT protocols for decontamination and use of personal protective equipment.**

- **Adult/ Pediatric Atropine Dosing Guides:**

Confirmed attack: Begin with 1 Nerve Agent Kit for patients less than 7 years of age, 2 Nerve Agent Kits from 8 to 14 years of age, and 3 Nerve Agent Kits for patients 15 years of age and over.

If Triage/ MCI issues exhaust supply of Nerve Agent Kits, use pediatric atropines (if available).

Usual pediatric doses: 0.5 mg ≤ 40 pounds (18 kg), 1 mg dose if patient weighs between 40 to 90 pounds (18 to 40 kg), and 2 mg dose ≥ 90 pounds (≥ 40 kg).

- Each Nerve Agent Kit contains 600 mg of Pralidoxime (2-PAM) and 2 mg of Atropine.
- **Seizure Activity: Any benzodiazepine by any route is acceptable.**
- For patients with major symptoms, there is no limit for atropine dosing.
- Carefully evaluate patients to ensure they do not have exposure to other agent(s) (e.g., narcotics, vesicants, etc.)
- The main symptom that the atropine addresses is excessive secretions, so atropine should be given until secretions improve/ dry.
- EMS personnel, public safety officers and EMR/ EMT may carry, self-administer, or administer atropine/ pralidoxime to others by protocol. Agency medical director may require Contact of Medical Control prior to administration.

- **CHEMPACK Program:**

For multiple patients, call for **CHEMPACK** deployment per local emergency management and healthcare coalition plans.

**1 EMS CHEMPACK supports 454 patients.**

Medication in CHEMPACK may be used regardless of expiration date.

EMS Type CHEMPACK Container 454 Person Treatment Capacity			
Product	Cases	Units per case	Total Units
Mark 1 Auto-injector	5	240	1,200
-OR-			
ATNAA Auto-injector	6	200	1,200
-OR-			
Atropen 2mg Auto-injector	9	136	1,224
Pralidoxime 300mg Auto-injector	5	240	1,200
-AND-			
Diazepam 10mg Auto-injector	2	300	600
Seizalim (Midazolam) 5mg/ml vial 10ml	1	100	100
Atropen 0.5mg Auto-injector	1	225	225
Atropen 1mg Auto-injector	1	225	225
Atropine Sulfate 0.4mg/ml vial 20ml	1	100	100
Pralidoxime 1gm inj. 20ml	1	276	276
Sterile Water 20ml vials	1	150	150

