



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



Poison Control:

Poison control is a valuable resource, have a low threshold to engage them with any medication or chemical exposure. Poison control can aid with chemical or medication identification and treatment.

Poison control can prevent unnecessary emergency department visits and EMS transports:

They may instruct the patient to remain at home based on the type and nature of the ingestion or exposure. They can follow the patient at home with repeated phone calls and reassessments.

Poison control centers are connected nationwide. When you call 1-800-222-1222, you will most often be connected with Carolinas Poison Control, however if the NC center is busy, you may be directed to any poison center in the US.

When calling 1-800-222-1222, choose option #2 at the first voice prompt, and choose option #2 at the second voice prompt.

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 \leq 40 pounds (18 kg), 1 mg dose if patient weighs between 40 to 90 pounds (18 to 40 kg), and 2 mg dose \geq 90 pounds (\geq 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
Seizalam (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

