

## RP0405 - Treat Chemical Agent Casualties

### **TERMINAL LEARNING OBJECTIVE**

1. Given a chemical agent victim, the appropriate antidote and a decontamination kit, treat a chemical-agent casualty, to prevent further injury or death, per the student handout. (RP00.04.08)

### **ENABLING LEARNING OBJECTIVES**

1. Without the aid of references, given a list, identify the symptoms of nerve agent poisoning, per the student handout. (RP00.04.08a)
2. Without the aid of references, given a list, treat a nerve agent casualty, per the student handout. (RP00.04.08b)
3. Without the aid of references, given a list, identify the symptoms of blood agent poisoning, per the student handout. (RP00.04.08c)
4. Without the aid of references, given a list, treat a blood agent casualty, per the student handout. (RP00.04.08d)
5. Without the aid of references, given a list, identify the symptoms of blister agent poisoning, per the student handout. (RP00.04.08e)
6. Without the aid of references, given a list, treat a blister agent casualty, per the student handout. (RP00.04.08f)
7. Without the aid of references, given a list, identify the symptoms of choking agent contamination, per the student handout. (RP00.04.08g)
8. Without the aid of references, given a list, treat a choking agent casualty, per the student materials. (RP00.04.08h)
9. Without the aid of references, given a list, identify the symptoms of riot control agent contamination, per the student materials. (RP00.04.08i)
10. Without the aid of references, given a list, treat a riot control agent casualty, per the student materials. (RP00.04.08j)

### **PERFORMANCE STEPS:**

1. Identify the symptoms of nerve agent poisoning.
  - a. Mild symptoms. Casualties may be coherent and experience one or all of the following:
    - (1) Unexplained runny nose
    - (2) Unexplained sudden headache
    - (3) Drooling
    - (4) Difficulty with vision (dimness of vision)
    - (5) Tightness in chest/difficulty in breathing
    - (6) Localized sweating/muscle twitching in contaminated area of the skin
    - (7) Stomach cramps
    - (8) Nausea

**NOTES:** With mild symptoms, self-aid is a viable option. Using Nerve Agent Pyrodostigmine Pretreatment (NAPP), a standard issue pretreatment used in combating nerve agent poisoning, will counter react the effects of the agent depending on the length of exposure to and concentration of the agent.

Severe symptoms. Casualties can experience most or all of the mild symptoms and most or all of the following symptoms:

- (1) Strange or confused behavior
- (2) Wheezing, severe difficulty in breathing, and coughing
- (3) Red eyes with possible tearing
- (4) Vomiting
- (5) Severely pinpointed pupils
- (6) Severe muscular twitching and general weakness
- (7) Involuntary urination and defecation
- (8) Convulsions
- (9) Unconsciousness
- (10) Respiratory failure

2. Treating a nerve agent casualty.

a. Take steps to protect yourself and warn others.

- (1) Stop breathing, don, clear, and check the mask.
- (2) Upon receiving the command or detecting a contamination presence, stop breathing and close your mouth and eyes.

**CAUTION:** This does not mean take one last breath.

- (3) Place the rifle between your legs.
- (4) Remove the headgear and place it on the weapon.

**NOTE:** If wearing eyeglasses, remove them.

**CAUTION:** Do not wear contact lenses with field protective mask. Wearing contact lenses with the optical inserts will over correct your vision.

(5) Remove the mask from its carrier as shown in figure 1.

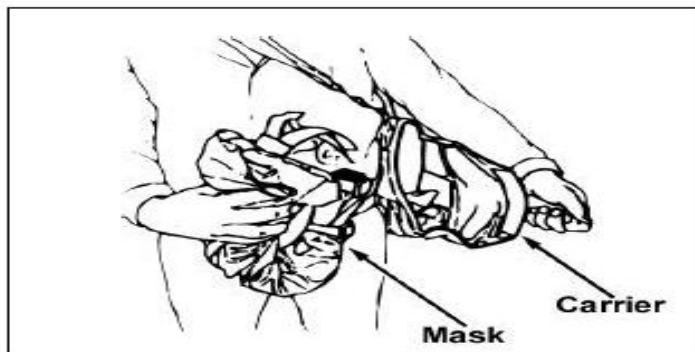


Figure 1

- (6) Open the carrier with your left hand and hold it open.
- (7) Use your right hand to grasp the facepiece, and then remove it from the carrier. Allow the hood to hang down in front of the mask.
- (8) Put your chin into the chin pocket of the facepiece. The mask is stored with the head harness pulled over the front of the mask as shown in figure 2.

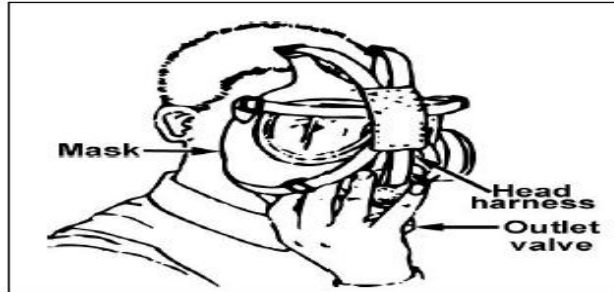


Figure 2

- (9) Clear the field protective mask.
- (10) Cover the outlet valve with the palm of one hand as shown in figure 3.
- (11) Exhale sharply so the air escapes around the edges of the facepiece.
- (12) Cover the air inlet port of the canister with the palm of your free hand, and then breathe in. The facepiece should collapse against your face and remain there while holding your breath.

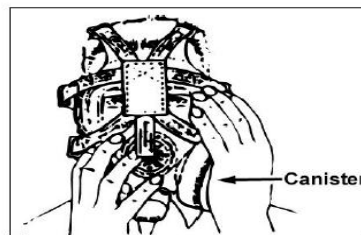


Figure 3

IF...	THEN...
Facepiece collapses	Consider it airtight.
Facepiece does not collapse	Check for hair, clothing, or other interference between the facepiece and your face.
Repeat steps to clear the mask until there is an airtight seal.	

- (13) Grasp the tab as shown in figure 4, then pull the head harness over your head.

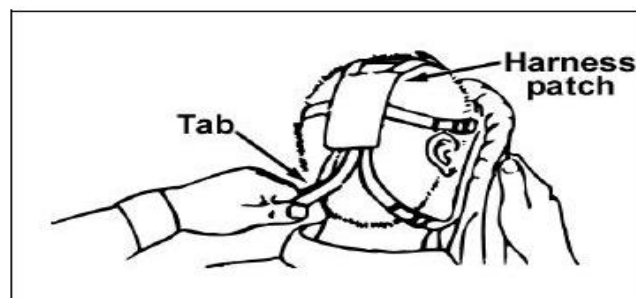


Figure 4

- (14) Make sure the square harness patch is centered comfortably on the rear of your head.

**CAUTION:** Make sure unit NBC personnel properly fit your mask. The temple and forehead straps are adjusted during fitting.

- (15) Maintain the seal while holding the facepiece to your face with one hand.

(16) Use your free hand to tighten the cheek straps one at a time as shown in figure 5.

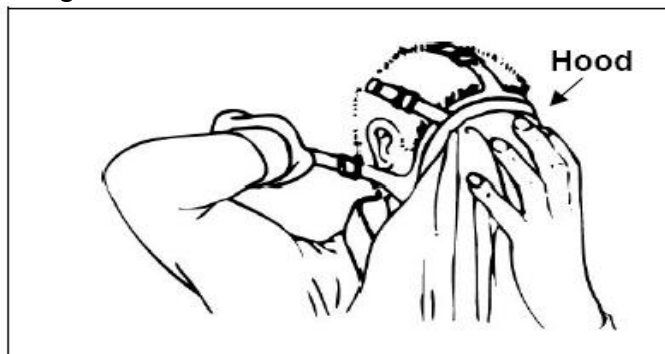


Figure 5

(17) Make sure the straps lie flat against your head.

(18) Should a leak or an improper seal be suspected,

(a) Clear the field protective mask as outlined in performance step 7.

(b) Recheck facepiece for leaks.

**WARNING:** Check the mask for leaks each time you put it on. Air should circulate over the eyelenses inside the mask. If air flows in from around the edges of the mask, you may have a leak.

(19) Run your finger around the edges of the mask to check for bulging material.

(20) When time permits, have another Marine check the facepiece.

(21) Resume breathing normally.

**CAUTION:** The mask must be donned, cleared, and sealed within 9 seconds. An additional 6 seconds is given to put the hood in place.

(22) Sound the alarm to warn others.

(23) Give visual alarm for a chemical/biological attack.

(24) The universal command to put the mask on is GAS-GAS-GAS.

(25) The word gas is repeated three times.

(26) Give vocal alarm for a chemical/biological attack as shown in figure 6.

(27) The arms are extended straight out to the side and hands made into a fist.

(28) As the word GAS is said, bend the arms at the elbows so the fists are placed to the ears, then repeat three times.

b. Administer self-aid if you feel any mild symptoms of nerve agent poisoning.

c. Decontaminate exposed skin as necessary.

d. Assume the appropriate MOPP level as directed.

e. Leave the casualty in the position he is found, when possible. Reposition the casualty only when it is necessary to don, to clear and adjust his mask, or to administer medication.

f. Mask the casualty.

(1) Ensure the casualty is on his back.

(2) Place the mask on the casualty.

- (3) Tighten the head harness straps.
  - (4) Instruct the casualty to clear the mask if he can follow instructions.
  - (5) Check for a complete seal by covering the inlet valve of the mask.
  - (6) Pull the hood over the casualty's head, neck, and shoulders.
- g. Evaluate the casualty's condition and determine the proper amount of medication to administer.
- h. Administering nerve agent antidote (figure 6).



Figure 6

- (1) Remove auto injectors from the casualty's mask carrier.
- (2) With one hand, hold one set of injectors by the plastic retaining clip as shown in figure 7.

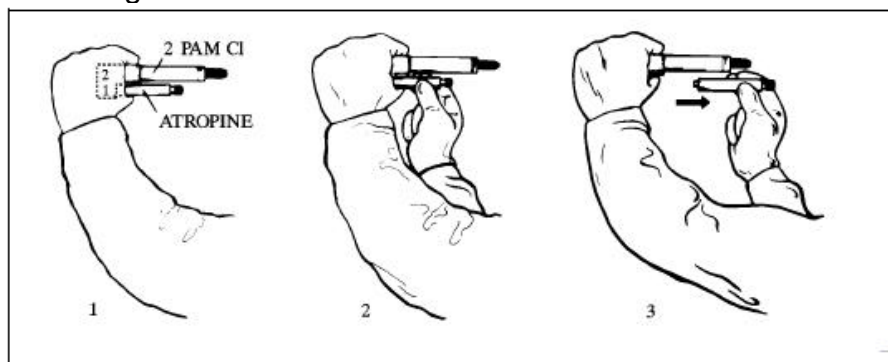


Figure 7

- (3) With your free hand, check the casualty's thigh to avoid buttons or other objects in his pockets.
- (4) Grasp injector 1, the small injector (Atropine), and then pull it from the clip with a smooth motion.
- (5) Form a fist around the injector without covering or holding the needle (green) end. The injector is armed! Do not place your thumb over the green (needle) part of the injector because you might accidentally inject yourself.

(6) Place the green end of the injector against the casualty's outer thigh muscle as shown in figure 8.



Figure 8

(7) To avoid the casualty from sustaining additional damage, do not inject areas surrounding the knees, hips, or the bones. Inject a thin casualty in the upper, outer part of his buttocks as shown in figure 9.

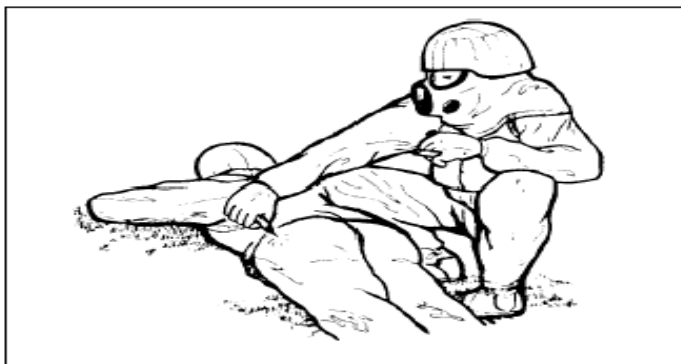


Figure 9

(8) Push the injector into the casualty's thigh with firm, even pressure until the injector functions and hold the injector in place for at least 10 seconds.

(9) For mild symptoms, administer one Mark I kit and wait 5 minutes. If symptoms persist, re-administer every 5 minutes for a maximum of three sets. For advanced nerve agent poisoning, administer Mark I kits, one after the other for a maximum of three.

i. Administer 2 Pam Chloride injection.

(1) Pull out the large injector, as shown in figure 10, and then form a fist around it. Avoid placing your thumb over the black (needle) tip.

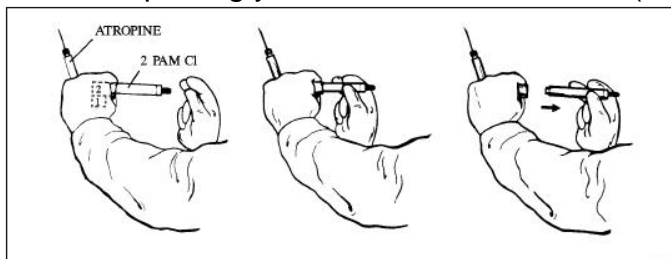


Figure 10

(2) Place the black (needle) end against the casualty's thigh.

(3) Push the injector into the casualty's muscle with firm, even pressure until the injector functions. And hold the injector in place for at least 10 seconds.

(4) If required, repeat until the casualty has received a total of three sets of antidote injections.

(a) j. Secure used injectors.

(1) Push the needle of each used injector through one of the breast pocket flaps of the casualty's protective over garment as shown in figure 11.

(2) Bend the needlepoints to form a hook without tearing or puncturing your protective gloves or clothing.

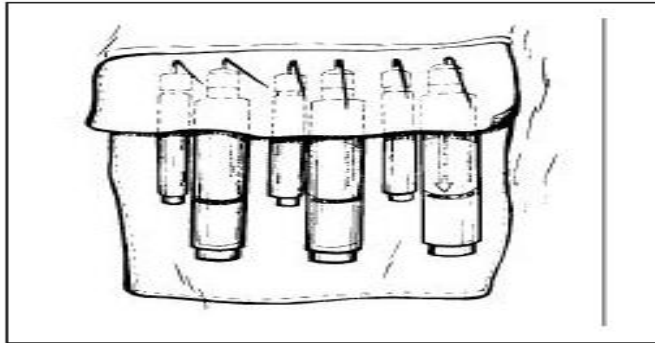


Figure 11

(b) k. Administer Chemical Agent Nerve Antidote (CANA) if victim is convulsing.

(1) The CANA auto injector looks similar to that of the 2 Pam Chloride in the Mark I kit.

(2) Exercise extreme care to prevent improper usage of the CANA. Improper usage of the CANA can be fatal to the casualty.

(3) Use CANA only as an anticonvulsant to combat nerve agent poisoning.

(4) Locate the CANA. Location and storage of the CANA will vary according to unit SOPs.

(5) Treat convulsions immediately. It may be necessary to restrain the casualty while injecting with CANA.

(6) The CANA auto injector is administered in the same manor as the Mark 1 kit.

(7) The CANA auto injector is secured in the pocket in the same manor as the Mark 1 kit.

(c) l. Resuscitate a nerve agent casualty if necessary.

(1) Carefully roll the casualty over if he is on his back. Before rolling the casualty over, ensure that he is masked and that applicable medication has been administered.

(2) Loosen casualty's war belt.

(3) Check to see if the casualty is wearing body armor and remove it if applicable.

(4) Cross the casualty's arms across his chest and cross his legs.

(5) Grasp the casualty by his overgarment and roll him away from you to reduce the spread of contamination.

- (6) Turn the casualty's head to the side and ensure that the voicemitter/outlet valve assembly is not buried in the ground.
- (7) Stand over the casualty at the waist and locate casualty's shoulder blades.
- (8) With both hands, apply pressure in a sharp down direction to the middle of the casualty's back just below the shoulder blades to force air out of the casualty's lungs.
- (9) Place your hands under the casualty's arms (in armpits) and lift him about 18 to 24 inches from the deck.
- (10) Ease the casualty back to the deck.
- (11) Perform this procedure 10 to 12 times per minute at a steady and uniform rate.
- (12) Continue to perform this procedure until you are too physically exhausted to continue, are relieved by medical personnel or another Marine, or casualty resumes breathing on his own.

(d) m. Treat the casualty for shock and seek medical attention.

(e) n. MEDEVAC the casualty as soon as possible.

### 3. Identify the symptoms of blood agent poisoning.

- Casualties may experience one or all of the following symptoms:

- (1) Vertigo
- (2) Headache
- (3) Nausea
- (4) Tightness in chest/coughing
- (5) Irritation of the eyes, nose, and throat
- (6) Increased depth of respiration within seconds
- (7) Labored breathing resulting from an increased need for oxygen or inadequate air exchange in the lungs (Dyspnea)
- (8) Possible, a persistent cough with much frothy sputum
- (9) Discoloration of the casualty's lips and finger tips
- (10) Convulsions in 20 to 30 seconds
- (11) Coma

### 4. Treat a blood agent casualty.

- Surviving a blood agent attack primarily depends on the concentration and length of exposure. Marines who fail to perform proper immediate action will likely become casualties. Due to the rapid effects of this chemical agent, there is currently no antidote to combat it.

- (1) Immediately mask the casualty.
- (2) Treat the casualty for shock.
- (3) MEDEVAC the casualty as soon as possible.

### 5. Identify the symptoms of blister agent poisoning.



- For instructional purposes, all blister agent symptoms have been grouped together. Symptoms and agent effects depend on agent concentration, length of exposure, and specific type of agent.

- (1) Nausea
- (2) Dizziness
- (3) Itching or tingling of the skin
- (4) Vomiting
- (5) Cramps
- (6) Diarrhea
- (7) Reddening of the skin
- (8) Immediate and intense pain, particularly in the eyes and respiratory tract
- (9) Inflammation and blisters
- (10) Blindness
- (11) Wheals or welts/small hard blisters
- (12) Coughing up blood
- (13) Shock

**NOTE:** Some blister agents, particularly arsenicals, will create spontaneous casualties. The symptoms listed above will be quickly noted. Even though other blister agents (e.g., vesicants) will create casualties, the symptoms may develop over time with no noticeable, immediate effects.

6. Treat a blister agent casualty.

- (f) a. Mask the casualty.
- (g) b. Decontaminate the casualty's eyes, if necessary.
- (h) c. Decontaminate the casualty's exposed skin, if necessary.

**WARNINGS:** Do not use the Skin Decon Kit to decontaminate the casualty's eyes. Doing so will aggravate the casualty's condition and will cause him extensive damage. Do not open blisters. Cover them loosely with a field dressing and secure. Should a blister open, treat it as an open wound.

- (i) d. Dress the casualty to MOPP 4.
- (j) e. Treat the casualty for shock.
- (k) f. MEDEVAC the casualty as soon as possible.

7. Identify the systems of choking agent contamination.

- (l) a. With ordinary field exposure, death will probably not occur. However, prolonged exposure to high concentrations of the vapor and neglect or delay in the masking can be fatal.
  - (1) Headaches
  - (2) Nausea

- (3) Tightness in chest
- (4) Tears/watery eyes
- (5) Dry throat
- (6) Vomiting
- (7) Hacking cough
- (8) Rapid shallow breathing
- (9) Red/pinkish sputum
- (10) Shock

8. Treat a choking agent casualty.

- (m)a. Mask the casualty.
- (n) b. Treat the casualty for shock.
- (o) c. MEDEVAC the casualty as soon as possible.

**NOTE:** Monitor the casualty to ensure that his airway does not become blocked by material he coughs up. It may be necessary to place the casualty on his side to clear his airway.

9. Identify the symptoms of Riot control agent contamination.

- Casualties may experience any of the following symptoms:

- (1) Sneezing
- (2) Runny nose
- (3) Slight tearing
- (4) Pepper-like taste
- (5) Involuntary closing of the eyes
- (6) Profuse tearing
- (7) Coughing
- (8) Severe irritation of the upper respiratory tract

10. Treat a riot control agent casualty.

- (p) a. Assist the casualty in masking.
- (q) b. Move the casualty to an uncontaminated area (upwind is recommended), expose the casualty to fresh air, and have the casualty face into the wind.
- (r) c. Wash or rinse exposed skin.
- (s) d. If contamination, in liquid or solid form, has gotten into the eyes, force open the eyes and flush with large amounts of water.

**WARNING:** Do not touch your face or rub your eyes. Doing so can cause an intense burning sensation in the affected areas.

**REFERENCES:** Marine Corps Common Skills Handbook – Book 1B  
MCRP 4-11.1A, *Treatment of Chemical Agent Casualties and Conventional Military Chemical Agents*