Introduction

The CHEMPACK program serves to augment existing local capabilities to respond to incidents involving chemical nerve agent or organophosphate release. It consists of the forward-placement of eight (8) containers of nerve agent antidotes at four (4) different Cache Sites located throughout the State of Rhode Island.

Sensitive Information Disclaimer

Because of the very sensitive nature this program, locations of Cache Sites are not to be discussed outside of work or with those without a clearly understood “need to know.” Under 42 USC § 247d-6b and 5 USC § 552 (United States Code), federal agencies are prohibited from disclosing any information identifying the location at which CHEMPACK containers are stored. This prohibition from disclosure extends to all state and local-level emergency responders, and any other individual who may gain knowledge of a CHEMPACK container’s location through preparedness planning or utilization of a container.

Contact Information

Rhode Island Department of Health – Center for Emergency Preparedness and Response
24/7 On-Call Number: 401-222-6911

Inside this Field Operations Guide

What is a CHEMPACK? ................................................................. 2
When to Request CHEMPACK .................................................. 2
How to Request CHEMPACK .................................................... 2
Deployment and Receipt of CHEMPACK .................................... 3
Administration of CHEMPACK Medications .............................. 3
Demobilization ........................................................................ 5
What is a CHEMPACK?

A CHEMPACK is a container of nerve agent and organophosphate antidotes. Below is a table that lists the contents of a single CHEMPACK container.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Pack</th>
<th>Cases</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark 1 auto-injector</td>
<td>240</td>
<td>5</td>
<td>1200</td>
</tr>
<tr>
<td>Atropine Sulfate 0.4mg/ml 20ml</td>
<td>100</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Pralidoxime 1gm inj 20ml</td>
<td>276</td>
<td>1</td>
<td>276</td>
</tr>
<tr>
<td>Atropen 0.5 mg</td>
<td>144</td>
<td>1</td>
<td>144</td>
</tr>
<tr>
<td>Atropen 1.0 mg</td>
<td>144</td>
<td>1</td>
<td>144</td>
</tr>
<tr>
<td>Diazepam 5mg/ml auto-injector</td>
<td>150</td>
<td>2</td>
<td>300</td>
</tr>
<tr>
<td>Diazepam 5mg/ml viat, 10ml</td>
<td>50</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>Sterile water for injection (20Vials)</td>
<td>100</td>
<td>2</td>
<td>200</td>
</tr>
</tbody>
</table>

The container is designed primarily for field-use by EMS services, and contains items to facilitate such use (a majority of the contents are Mark 1 auto-injectors). These items may also be readily used in hospital settings.

Rhode Island has supplemented the CHEMPACK containers with ancillary supplies, including needles, syringes, and sharps containers, to ensure that appropriate dosing and administration of the medications can occur in the field. These supplies will accompany the deployment of CHEMPACK.

When to Request CHEMPACK

A request for CHEMPACK should be considered in all incidents involving human exposure to a chemical nerve agent or organophosphate. **Deployment of CHEMPACK to treat a single casualty or patient is permissible.**

How to Request CHEMPACK

CHEMPACK assets may be requested by the on-scene Incident Commander. They may also be requested by a hospital's Emergency Department Physician or Charge Nurse.

**All requests for CHEMPACK should be directed to the Department of Health at (401) 222-6911.** This is a 24/7 on-call system for public health emergencies.

When making a request, provide the following information:

- Name of Incident Commander/Emergency Department Physician or Charge Nurse and contact information
- Location of incident and staging area
- Estimated number of casualties or patients

While the number of CHEMPACK assets deployed will be left to the ultimate discretion of the Department of Health, in most situations (except for the treatment of a single casualty or patient) the contents of an entire container, as well as the ancillary supplies, will be released.
Deployment and Receipt of CHEMPACK

All requests for CHEMPACK, whether from the field, a hospital, or from a Cache Site seeking to deploy internally, should be made to the Department of Health at (401) 222-6911.

Once the Department of Health receives a request for CHEMPACK, it will determine the most appropriate cache site and will forward the request. The Department of Health will also coordinate with a transportation resource to retrieve and deliver the assets. The primary transportation agency will be the Rhode Island State Police.

IMPORTANT: It is not the role of the Cache Site (or any of its personnel) to approve or deny deployment of CHEMPACK. Once instructed by the Department of Health, the Cache Site must deploy the assets without delay.

After the Department of Health receives a request for CHEMPACK, it will identify the most appropriate Cache Site, contact the Site’s Emergency Department (primarily via phone; alternatively via RISCON WA3) and will instruct it to begin deploying CHEMPACK.

Once the Cache Site receives instruction to deploy CHEMPACK, the Cache Site’s Pharmacist should be contacted immediately in order to access the containers. It is also advisable that the Emergency Department Physician be notified in case the hospital receives patients from the incident. Approval or authorization from the Physician is not necessary.

When readying assets for deployment, ensure that the ancillary supplies stored with the containers are also readied. The Transfer of Custody Form should be initiated during this time.

In most situations, the Rhode Island State Police will present at the Cache Site’s specified pickup location to retrieve the assets. If it is not the State Police who will retrieve the assets, the Department of Health will notify the Cache Site of this and will provide the necessary updated information.

Upon the arrival of the Rhode Island State Police, the appropriate section of the Transfer of Custody Form should be completed; the State Police will take two copies of the form when the assets are transferred into their custody.

The State Police will then deliver the assets to the incident’s staging area, and will transfer custody (again using the Form) to the on-scene Incident Commander.

For questions or support, contact (401) 222-6911 (24/7).

Administration of CHEMPACK Medications

Refer to State of Rhode Island Prehospital Care Protocols and Standing Orders and Major Incident Protocol. The following is an excerpt from the Major Incident Protocol (as of 4 February 2014).

Nerve Agents
1. Don appropriate PPE (see Appendix I) and evacuate contaminated area if inhalation exposure is suspected.

2. Only properly trained teams utilizing appropriate PPE (see Appendix I) should enter the contaminated area.

3. Level C PPE is adequate for treating exposed and symptomatic patients AFTER decontamination. Level C PPE may be worn only under the following conditions:

While treating/transporting patients who have been appropriately decontaminated; or
Incident Command has evaluated the situation and determined that positive pressure SCBA is not required.

4. Avoid contact with contaminated materials, including food and water.

5. Decontaminate self and/or partner as indicated following appropriate procedures (see Appendix I).

6. Treat self and/or partner if symptomatic.

7. Consider activation of CHEMPACK program through Incident Command and Regional Control.

8. Treat Patients:

Decontaminate patients as soon as possible following appropriate procedures. Decontamination must be performed by personnel trained to at least the Hazardous Materials Operations level and equipped with appropriate PPE (see Appendix I). Assure fresh air during decontamination.

Administer airway support as indicated, following proper protocols. This may include supplemental oxygen, ALBUTEROL, and airway adjuncts such as BVM ventilation, and/or advanced airway management as indicated.

If indicated, EMTs trained and licensed/certified by the RI Department of Health to perform endotracheal intubation may perform endotracheal intubation (patients >1 month old) following the Endotracheal Intubation protocol.

Administer nerve agent antidotes (ATROPINE and PRALIDOXIME CHLORIDE [2-PAM]) IM (by autoinjector or syringe/needle) for all symptomatic patients as indicated in Table 1.

Determine if patient’s symptoms are moderate or severe.

**Moderate/mild symptoms** include localized sweating, muscle fasciculations, nausea, vomiting, weakness, dyspnea.

**Severe symptoms** include unconsciousness, convulsions, apnea, flaccid paralysis.

For pediatric patients, use a length-based pediatric tape (e.g., Broselow tape), if available, to estimate patient weight.

- For severe exposures, start assisting ventilations as needed after administration of antidotes.
- Repeat ATROPINE at 5-10 minute intervals until secretions have diminished and breathing is comfortable or airway resistance has returned to normal.

**TABLE 1: Nerve Agent Antidote Dosing**

<table>
<thead>
<tr>
<th>Patient Age</th>
<th>Moderate Symptoms</th>
<th>Severe Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Atropine</td>
<td>2-PAM</td>
</tr>
<tr>
<td>Infant (0-2 yrs)</td>
<td>0.05 mg/kg</td>
<td>15 mg/kg</td>
</tr>
<tr>
<td>Child (2-10 yrs)</td>
<td>1 mg</td>
<td>15 mg/kg</td>
</tr>
<tr>
<td>Adolescent (10-15 yrs)</td>
<td>2 mg</td>
<td>15 mg/kg</td>
</tr>
<tr>
<td>Adult (&gt;15 yrs)</td>
<td>2-4 mg</td>
<td>600 mg</td>
</tr>
<tr>
<td>Elderly, frail</td>
<td>1 mg</td>
<td>10 mg/kg</td>
</tr>
</tbody>
</table>
[ALS PERSONNEL ONLY]: Follow the Seizures protocol to administer anticonvulsants (MIDAZOLAM [Versed], DIAZEPAM [Valium], or LORAZEPAM [Ativan]) to all patients with patients with seizures, respiratory distress requiring BVM support, or other signs of severe effects.

Transport decontaminated patient(s) to a designated receiving facility (may not necessarily be a hospital emergency department during a declared major incident). Notify receiving facility as instructed by Incident Command. Medical Control consultation should be sought for severe cases or if patient condition is worsening.

Document all incident information for transported patients by completing the RI EMS Ambulance Run Report or other RIDOH-approved form.

Demobilization

Following the deployment of CHEMPACK, and after the incident is stabilized, the Department of Health will issue guidance for the management of any unused CHEMPACK assets. These assets are the property of the State; no assets are to be disposed of or retained without the Department of Health’s explicit instruction to do so.
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