DEPARTMENT OF HEALTH
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SUBJECT: Antidotes for Agents of Chemical Terrorism

TO: Regional EMS Council Directors
Regional EMS Medical Directors
Regional Counterterrorism Task Force Leaders

FROM: Douglas F. Kupas, MD
Commonwealth Emergency Medical Director
Emergency Medical Services Office
(717) 787-8741

THRU: Director
EMS Office

The Department of Health and Human Services (HHS) recently made recommendations related to the use of nerve agent and cyanide antidotes by EMS systems. It is important for Pennsylvania's EMS providers to have the authority to carry and use these antidotes when the need has been recognized and the regional protocols permit such use.

Pralidoxime (2-PAM) is an antidote for certain nerve agents and, along with atropine, is a component of the Mark 1 autoinjector kits that may now be used by ALS personnel. Sodium thiosulfate is used to treat cyanide poisoning and is a component of cyanide kits. At this time, sodium thiosulfate is the only component of the cyanide kit approved in response to the HHS recommendation. The following information is provided to regional EMS councils to assist with decision making related to the use of these antidotes:

1) Are ALS personnel permitted to use these medications?
Effective immediately, pralidoxime and sodium thiosulfate are approved as exceptions to the ALS drug list. ALS services may carry and use these medications if permitted to do so by the regional ALS treatment protocols. This exception is in effect until these medications are added to the state ALS drug list and published in the Pennsylvania Bulletin.

2) What medications are administered to patients who have symptoms related to exposure to a nerve agent or cyanide?
Atropine and **pralidoxime** are the initial treatments for patients with symptoms of a nerve agent exposure. These may be given as individual injections, but they are also conveniently packaged in autoinjectors known as Mark 1 kits. Generally, one Mark 1 Kit is used to treat mild or moderate symptoms and 3 kits are used for moderate to severe symptoms. **Diazepam** is used to treat or prevent seizures in these patients. Diazepam may be carried in vials or in autoinjectors

known as CANA. **Sodium thiosulfate** is used to treat patients with symptoms that may be related to exposure to cyanide.

3) Which ALS service should carry these medications?

Threat assessment is the basis for answering this question. All regions and RCTTFs were part of the Pa Domestic Preparedness Strategy (threat assessment) completed in September 2001. These assessments may need updating. Regional EMS councils and RCTTFs must be involved in the assessment of the need for carrying these antidotes in forward responding units, the amount of antidotes that should be stored, and the location of any caches. All use of these medications must be consistent with the regional EMS treatment protocols. All medications must be stored and maintained in compliance with the EMS Act and regulations and other laws pertaining to the storage, maintenance and security of medications.

ALS services that cover municipalities with populations over 50,000 or mass gathering events with over 50,000 attendees should consider carrying these antidotes in forward responding EMS units. ALS services that cover smaller populations should consider alternatives that would provide access to these medications if needed. Examples include storing prepackaged caches at a local hospital so that the medications can be picked up by a responding unit or storing prepackaged caches at air ambulance bases so that the medications can be transported to a scene when needed. These alternatives should be planned in collaboration with regional EMS councils and RCTTFs to assure minimum duplication and maximum coordination

4) How should these medications be incorporated into regional EMS protocols?

Drafts of the ALS regional protocol guidelines for nerve agent exposure and cyanide exposure are attached to this RC memo. Regions may use these drafts to develop regional EMS protocols. The EMS Office will distribute revisions to these drafts to the EMS regional councils when completed. Any new regional EMS treatment protocol must be approved by the EMS Office via the existing process for protocol approval.

5) How should ALS practitioners be trained to use these medications?

The EMS Office is developing a continuing education program for the use of these antidotes. This will be completed urgently. The course will be completed as a traditional CE lecture and via the Learning Management System.