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Strategic National Stockpile Distribution Planning: Dispensing Special Doses

PURPOSE

Discusses procedures for dispensing special doses of Strategic National Stockpile (SNS) pharmaceuticals to children and adults who cannot take the indicated medication, cannot take the indicated dosage, or are unable to swallow whole tablets.

SUMMARY

The SNS includes an amount of ciprofloxacin and doxycycline oral liquids and amoxicillin chewable tablets for children and adults unable to take certain drugs or who are unable to swallow whole tablets. Amoxicillin tablets can be given to individuals unable to take ciprofloxacin and doxycycline. This includes pregnant women and people who are allergic to ciprofloxacin and doxycycline. State and local SNS planners should ensure they have provisions in place to screen for such individuals at dispensing sites, and that dispensing sites are able to dispense these special doses medications.

State and local SNS planners may need to establish procedures to compound—breaking tablets into a powder and adding water—pharmaceuticals that arrive in the push packages. This is necessary due to limited supplies of oral liquids and chewable tablets to provide children or other patients requiring special doses. It is also necessary because the SNS program is planning to phase out the supplies of chewable tablets. Chewable tablets are expensive, have a relatively short shelf life, and have limited use in the private sector, making them difficult to rotate.

DESCRIPTION

Repackaging SNS pharmaceuticals is primarily a state function and is typically done at the receipt, store, and stage (RSS) site. **State and local SNS planners will need to decide whether to compound special doses at the RSS site during repackaging or at local dispensing sites.** This decision should be based on resources available to the state.

The Centers for Disease Control, Division Strategic National Stockpile (DSNS) guidance suggests compounding should occur at dispensing sites because compounded drugs and liquid suspensions can have a short expiration date and need to be reconstituted as

Appendix P of the [DSNS Version 10](#) Guidelines provides an overview of pediatric dispensing considerations --including comprehensive information on preparing oral suspensions of ciprofloxacin and doxycycline, including ingredients and directions.

[Stats Indiana](#) provides users with demographic overviews for areas in Indiana, including total population by age. Statistics on a region's pediatric and elderly population can assist planners in estimating demand for special doses.

late as possible. Compounds and suspensions can also be created using bottled or bulk pharmaceuticals at the site on an as needed basis. Compounding at the dispensing sites will require pharmacists to be available at each site. Finding adequate numbers of pharmacists to staff all dispensing sites may be difficult due to the number of operational sites and limits on the number of available pharmacists.

Operational guides, as well as layout and patient flow diagrams for individual dispensing sites plans should include the following:

- Screening procedures to identify individuals requiring special doses;
- Separate areas within dispensing sites for preparing and dispensing special doses; and
- Staff assignments for preparing and dispensing special doses.

Screening Procedures to Identify Patients Requiring Special Doses

Greeters at the entrance of the dispensing site can identify and direct parents with children, pregnant women, the elderly, and head of household (if planners decide to introduce a head of household protocol) to the designated area to receive special doses as they enter the site.

Greeters can also provide each patient with a medical screening form to be completed. This includes questions on allergies to drugs, medical history, and current medical conditions. Staff reviewing the forms will then direct individuals that require special doses to the designated area.

The [California Department of Health Services Mass Prophylaxis Planning Guide](#) (pages 73-82) provides examples of medical screening forms and anthrax and antibiotic fact sheets.

Additionally, flyers, banners, audiotape, and videos should relay the following information to patients standing in line:

- Name of the pharmaceutical product being dispensed;
- Dosage being provided;
- Information about allergic reactions;
- Known side-effects;
- Harmful interactions with other pharmaceutical products; and
- Individuals who should not receive the pharmaceuticals.

These items will allow patients who require special doses and have not been recognized by greeters to self-identify themselves. If there are sufficient resources, one or two volunteers could stand near the line, ready to direct these individuals.

Preparing and Dispensing Special Doses

In designing the layout and operations for individual dispensing sites, planners should identify a separate area for preparing special doses of pharmaceuticals and, if possible, a separate area for dispensing special doses.

This is important because reconstituting pharmaceuticals takes time and could slow down other operations. Local SNS planners will need to ensure that the following items are available at the dispensing site to distill the drugs:

The [Paddock Laboratories, Inc.](#) website provides articles on techniques and procedures for extemporaneous compounding of pharmaceuticals.

- Distilled water (not included in SNS);
- Pitchers;
- Measuring spoons; and
- Mortar and pestle.

Dosing information should be posted in the workspace to assist staff and expedite dispensing operations. Dosage forms for the SNS pharmaceutical supplies are available through the CDC and provide doses in milligrams based on weight in pounds and kilograms.

The Wyoming Department of Health SNS plan includes an annex providing a list of compounding pharmacies in the state and instructions on compounding medications.

Staffing Required for Preparing and Dispensing Special Doses

In addition to pharmacists, planners will need to allocate nurses to assist in dispensing special doses and volunteers to carry out other duties, including weighing children. Few pharmacists have experience in compounding drugs into oral suspensions. DSNS recommends that planners contact their state board of pharmacy to find experienced specialists in their area and establish contingency contracts with these pharmacists to assist in compounding pharmaceuticals during SNS dispensing. Local and state pharmacy boards and schools of pharmacology can also help planners find the most effective way to measure and compound special doses during SNS dispensing operations.

The Nebraska Health and Human Services System SNS Status Report (August 2003) includes an [NBC quick reference guide](#) for treatment of mass casualties and post-exposure prophylaxis. The guide lists dosages of treatment for children and pregnant women.

RESOURCES

- California Department of Health Services. *State of California Mass Prophylaxis Planning Guide*. Jun 2003. ([LLIS.gov ID# 160](#))
- Centers for Disease Control and Prevention. *Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness*. Version 10 (Draft), Jun 2005. ([LLIS.gov ID# 14197](#))
- Centers for Disease Control and Prevention. *SNS Preparedness Course*. 12-16 Jan 2004.
- Nebraska Health and Human Services. *Strategic National Stockpile: Status Report as of August 21, 2003*.
- Wyoming Department of Health. *Strategic National Stockpile Plan*. Revised 1 Jul 2003.

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