Objectives

Pharmacists Learning Objectives: At the completion of this activity, the participant will be able to:
1. Describe the purpose and goals of the Strategic National Stockpile (SNS) program.
2. Prepare an emergency disaster plan for pharmacy.

Technicians Learning Objectives: At the completion of this activity, the participant will be able to:
1. Describe the purpose and goals of the Strategic National Stockpile (SNS) program.
2. Assist pharmacist in preparing an emergency disaster plan for pharmacy.

Pre-Test

1. How many CHEMPACK containers are located in the state of Louisiana?
   a) 15
   b) 20
   c) 30
   d) 35
2. Who has the authority in Louisiana for requesting the 12 Hour Push Packs from CDC?
   a) SNS Coordinator
   b) State Health Officer
   c) Louisiana Hospital Association
   d) Louisiana Poison Center
   e) A and B

3. Which medication can be found in the 12 Hour Push Pack container?
   a) Amoxicillin
   b) Bactrim DS
   c) Norco
   d) Ultram

4. What does PODs stand for?
   a) Point of Designation
   b) Point of Dispensing
   c) Point of Distribution
   d) Point of Diagnosis
Pre-Test

1. What type of incident would CHEMPACK assets be utilized?
   a) Anthrax
   b) Botulism
   c) Sarin
   d) Smallpox
   e) All of the above

Strategic National Stockpile (SNS)

A national repository of antibiotics, chemical antidotes, vaccines, antitoxins, antivirals, life-support medications, IV and IV administration sets, airway maintenance supplies, and other medical/surgical items used to augment federal, state, and local public health agencies in the event of a terrorist attack or other emergency

Goals of Strategic National Stockpile

- Quickly provide medication/vaccine to a large population
- Decrease the number of ill persons and/or deaths
Public Health Emergencies

- Category 'A' Threat Agents
  - Smallpox
  - Anthrax
  - Botulism
  - Viral Hemorrhagic Fever
  - Plague
  - Tularemia
- Chemical Nerve Agents
- Pandemic Influenza

Medical needs exceed local and state resources
Louisiana requests federal assistance
Federal officials deploy SNS assets

Anthrax’s Ticking Clock

- Exposure: 0-24h, 24-48h, 2-3 days, 3 days, 3-5 days, 5 days, 5-6 days
- Latent period before day 3
- Death after 3 days

SNS Deployment Process
SNS Push Packages

- Large quantities of medicine and medical supplies strategically located across the US.
- "Push Packs" are available for rapid deployment during an emergency
- Contains all items within SNS formulary
- 130 cargo containers
- Weighs over 50 tons

SNS Push Packs

How long does it take for SNS Push Packs to be delivered?
1) 4 hours
2) 12 hours
3) 24 hours
4) 36 hours
5) 48 hours

Formulary Contents

- Pharmaceuticals
  - Antibiotics (oral and intravenous)
  - Chemical Agent Antidotes
  - Vaccines
  - Antivirals
  - Antitoxins
- Intravenous (IV) Administration Supplies
- Airway Management Supplies (Pediatric and Adult)
- Radiation, Burns, and Blast Supplies
- Wound Care Supplies
- Personal Protective Equipment (PPE)
Anthrax Treatment Expectations

- Initially, clients will receive a 10-day supply of one of the following medications:
  - Ciprofloxacin 500mg OR
  - Doxycycline 100mg OR
  - Amoxicillin 500 mg
- Important to begin medication to prevent illness as soon as possible to reduce mortality rate, usually within 24 hours of exposure
- Depending on organism susceptibility testing may change antibiotics
- Current guidelines are to continue antibiotics for a total of 60 days

Managed Inventory

- CDC partners with vendors to assist with inventory requests
- Special supplies not stocked by SNS may be ordered and shipped directly to an affected area
- Additional Push Package supplies (i.e. antibiotics, vaccines) may be ordered
- Arrive ~24-36 hours
- Represents 97% of SNS assets

SNS Responsibilities

- Federal SNS
  - Send medications/vaccines
  - Provide technical assistance
- State and Local governments
  - Demonstrate need for supplies [State and Local]
  - Receive, stage, and store supplies [RSS] [State]
  - Dispense at Open PODs [Local]
  - Distribute vaccines/medications to all PODs [State]
Louisiana SNS Response Flow

Need exceeds capacity
State requests SNS

CDC delivers SNS
to State RSS site
within 12 hrs of request

Indian
Tribes

Prisons

Region

State

Local Response

First Responders

Nursing Homes

Hospitals

Open POD Sites

Occupational/Residential

Military

What is a Point of Dispensing?

Point of dispensing (POD) - A place where a vaccine, antibiotic or other medication is dispensed quickly to a large group of people.
Why do we need a POD?

• A catastrophic public health emergency could require the rapid distribution of medicines and/or supplies
• An example scenario: An aerial release of anthrax over a large geographic area
  ➢ Louisiana (64 parishes) – 4,649,676 citizens based on 2014 US Census estimate
  ➢ Goal: Need to provide antibiotics to the entire exposed or potentially exposed population within 48 hours of Anthrax event

Why would a POD be activated?

➤ To prevent disease in those exposed to an infection but who are not yet sick (pandemic influenza)
➤ To respond to a terrorist event (aerosolized anthrax event)
➤ To treat an infectious disease
    • The treatment offered would be limited to dispensing a specific medication

Where can PODs be located?

Some examples of where PODs can be located:
➤ High School Gymnasium
➤ Special Event Arenas
➤ Auditoriums
➤ Large open fields/parking lots
➤ Hospitals
➤ Universities/colleges
➤ Prisons
What are the types of PODs?

- DHH will set up POD Sites where the public can come to receive medications: **Open POD Sites**
- During pre-planning, LDH encourages organizations to set up their own POD Site where employees and their families could receive medications: **Closed POD Sites**
- A Closed POD Site would also distribute medications to their clients/residents/patients.
- LDH will distribute medications to Hospitals, Nursing Homes, First Responders, and Prisons.

**OPEN POD Models**

- Door-to-Door
- Drive-Thru
- Walk-Thru

**Example of a POD layout**
How will a POD be staffed?

- Individuals to run a POD
- Number and mix of skills depends on situation
- Source of staff
  - Public health and hospital staff members
  - Other first responders
  - Volunteers
  - School/Arena staff
  - Employees

Closed PODs

- Nursing homes
- Parish Jail
- Department of Corrections facilities
- Assisted Living Facilities
- Home Health
- Hospice
- Mental Health
- Meals On Wheel Program
- Senior Nutrition Programs
- Neighborhood Associations

The Benefits of Closed POD Sites

- For your organization
  - Convenient for employees and facility residents
  - Employee peace of mind that their family members and residents will be treated
  - Maintain your organization’s continuity of operations
- For the community
  - Decrease the number of people going to Open POD Sites
  - Lessens economic impact
  - Lessens burden and stress on first responders (traffic and crowd control)
- Should not be used to dispense to the general population
Stations of a Closed POD

- **Greeting /Check-In**
  - Give out forms/fact sheets
  - Ensure form is completed
- **Screening**
  - Review form and determine appropriate medication
- **Dispensing**
  - Dispenses the appropriate medication, dosage, and guidance
- **Exit**

Closed PODs: LDH Roles

- **Pre-event:** Assistance organizations with planning and/or training
- **At the time of an event LDH will provide:**
  - Medication/vaccine
    - Vaccines will only be distributed to closed PODs with licensed health care providers
  - Guidance for dispensing
  - Forms and fact sheets
  - Real-time support by phone/email

Preparing Your Pharmacy or Business Plan

- Develop Continuity of Operations Plan (COOP)
- Appoint a committee
- Identify a primary and alternative dispensing location on the premises
- Sign a Closed POD Memorandum of Agreement (MOA)
- Write a POD plan and Security Plan
- Ensure facility staff understands their role and how to dispense medications prior to an event
CHEMPACK

CHEMPACK Mission

- To provide, monitor, and maintain a nationwide program for the forward placement of nerve agent antidotes.
- To provide state and local governments a sustainable resource; and improve their capability to respond quickly to a nerve agent incident.

What is CHEMPACK?

- CHEMPACK is a program of the Centers for Disease Control and Prevention’s (CDC)- Division of Strategic National Stockpile (SNS)
- It is a voluntary project which pre-positions sealed containers of federally-owned nerve agent antidotes at the local level
- CHEMPACK program is only one of a number of programs that are part of Strategic National Stockpile (SNS)
CHEMPACK Program

What are Nerve Agents?

- Highly poisonous chemicals that work by preventing nervous system from working properly
- Odor
  - Odorless
  - Faint fruity odor
  - Slight camphor odor
- Invisible liquid or gas
- Can be inhaled, swallowed, or absorbed through the skin
- Onset is abrupt (seconds to hours)
- May be utilized as potential weapons by terrorist

Nerve Agents

Chemical Weapons:
- Sarin
- Tabun
- Soman
- Cyclosarin
- VX

Organophosphate Pesticides:
- Parathion
- Malathion
- Chlorpyrifos
- Diazinon
Nerve Agent Timeline

1932
• Gerhard Schrader, a German scientist at Bayer, produced Tabun

1933
• Schrader created Sarin, Soman, and Cyclosarin as instructed by Nazi government

1967
• US military secretly tests Sarin in Hawaii. The test is called “Red Oak.”

1980s
• Sarin and other nerve agents may have been used in chemical warfare during Iran-Iraq war

1995
• Aum Supreme Truth cult placed plastic bags of Sarin on subway trains in Tokyo. 13 people die and more than 5,000 become ill.

1999
• Carbamate insecticide, Methomyl, was added to salt at a California restaurant

2002
• Nicotine-containing insecticide was placed in ground beef and purchased by customers in Grand Rapids, Michigan

Nerve Agents

- Nerve agent
- Inhibits nervous system
- Disrupts messages from brain
- Stops organs and muscles
- Death
- Difficulty breathing
- Seizures

Why the CHEMPACK program?

- Nerve agents can cause rapid system failure
- SNS has a 12-hour response time, which is too long in the event of a chemical attack
- Antidotes can reverse symptoms if administered in a timely manner
- Most hospitals and pharmacies do not stockpile nerve agent antidotes
- Nerve agent antidotes are costly and have variable shelf life
Was it a Nerve Agent Incident?

The 2001 anthrax attacks in United States, where letters containing anthrax spores killed five people and infected 17 others

- Yes
- No

Was it a Nerve Agent Incident?

The intentional release of Sarin gas on a Tokyo subway in 1995, resulting in over 5,000 ill and 12 deaths

- Yes
- No

Was it a Nerve Agent Incident?

The use of mustard gas as a chemical weapon during World War II

- Yes
- No
Signs and Symptoms

“DUMBBELLS”
- Diaphoresis or Diarrhea
- Urination
- Miosis
- Bradycardia
- Bronchospasm or Bronchorrhea
- Emesis
- Lacrimation
- Salivation

Nerve Agent Antidotes

The 3 drugs included in CHEMPACK can reverse the effects of nerve agent exposure:
- Atropine Sulfate
- Pralidoxime (2PAM)
- Diazepam (Valium)

Nerve Agent Antidotes

Multi-dose vial
Auto-injectors
CHEMPACK Contents

- Mark I Nerve Agent Antidote Kit (ATNAA)
- Pediatric Atropen
- Diazepam Auto injector
- Atropine, Pralidoxime, and Diazepam in Multi-dosage Vials

CHEMPACK Requirements

- CHEMPACK Storage Container (60.5”x32.5”x60.5”)
- SENSAPHONE Environmental Monitor

CHEMPACK Configurations

- Two different configurations
  - Hospital
  - EMS
Louisiana CHEMPACK

- 30 CHEMPACK containers strategically located across Louisiana
- In Louisiana, the locations where the containers are housed are known as CHEMPACK Host Sites
- Host sites are confidential and strategically located across the state

Who’s Involved in CHEMPACK Program?

- CDC
  - Owns and centrally manages CHEMPACK assets and conducts periodic inspections
- Louisiana Department of Health
  - Oversees receipt, maintenance and monitoring of CHEMPACK assets
  - Serves as liaison to CDC
- Host Sites
  - Ensures proper storage and security
- Louisiana Poison Center
  - Authority for utilization, coordination and distribution of CHEMPACK assets
- Louisiana State Police
  - Provide security, coordination, and transportation of CHEMPACK assets

CHEMPACK Response
Hospitals Roles

- Hospitals should be reserved for critically ill patients
- Ensure proper decontamination before entering the emergency department
- Providing the following care:
  - Treatment
  - Monitoring
  - Supportive Measures
  - Assisted Ventilation
Public Health Roles

- Promote life safety through education, information, and planning
- Participate as ESF-8 in Incident Command and/or Unified Command
- Conduct epidemiological investigations
- Coordinate laboratory services

Post-Test

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Post-Test

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Post-Test

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How you can help?

LAVA (Louisiana Volunteers in Action) is a registry of medical and non-medical volunteers that are pre-credentialed, trained and ready to assist during a time of disaster

www.lava.dhh.louisiana.gov

Thank you!

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