





Lesson Three – SNS Delivery Site Operations

SNS Learning Team
April 16, 2019

Purpose

To provide design and operational considerations that enhance the distribution speed of SNS materiel to points of dispensing and other points of care during an emergency



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Learning Objectives

- At the end of this session, participants will be able to:
- Identify delivery site options
- Describe receipt, stage and store (RSS) warehouse and regional distribution site (RDS) operations
- Describe RSS warehouse and RDS activities
- Identify RSS warehouse and RDS building, supply and equipment needs
- Describe methods to enhance delivery site throughput


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SNS Delivery Site Types

Delivery Sites





- Locations coordinated between states and SNS
- Medical countermeasures (MCM) delivered to these site
- SNS delivers to some; states deliver to others
- Past - focus on a single state RSS site. (v11)
- Now - may send to multiple sites if it makes sense
- States must coordinate multiple sites with SNS



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Delivery Sites

- Sites could be
 - State-designated RSS warehouse
 - Regional Distribution Sites (RDS)
 - Points of care
- Multiple links in your state distribution chain may slow the response
- Ensure sufficient resources at each level!

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Examples from the Field

- Warehouse run by third-party logistics (3PL) provider
- Contracted warehouse space
- State-owned warehouse
- State or county fairgrounds
- Civic centers
- Aircraft hangars



Maximizing Site Throughput

- Moving products through distribution system
- Time may be critical to save lives!
- Using appropriate facility
- Using appropriate equipment
- Having trained staff
- Determining velocity throughput needed for your response operations



Maximizing Site Throughput

- Receiving usually for immediate use
- Creating pre-determined orders to push out MCMs
- Sending full pallets when appropriate
- Cross docking outbound orders when appropriate



RSS Warehouse and RDS Activities

- Security Considerations
 - Staff arriving at RSS warehouse
 - Medical materiel arriving at RSS warehouse
 - Medical materiel from RSS warehouse to PODs and other points of care
 - Vetting of drivers



RSS Warehouse and RDS Activities

- Secondary sites
- Utility requirements
- Cold-chain storage equipment
- Environmental conditions (flood, traffic)
- Accessibility to modes of distribution
- Back-up power generation
- Climate control (58-86° F)






Knowledge Checks 1, 2

DSNS medical materiel will only be shipped to the state Receive, Stage and Store site
(Select one)


A. True
 B. False



Question 1

Which is NOT an RSS / RDS warehouse activity? (Select one)

A. Receiving medical materiel
 B. Processing orders
 C. Distributing medical materiel
 D. Dispensing medical materiel



Question 1



**Delivery Sites:
Building, Supply, and Equipment Needs**

Delivery Sites: Building Requirements

- Delivery sites should have docks!
- RSS warehouse site
 - Docks accommodate tractor with 53-foot trailers
 - Multiple receiving and shipping docks
 - Simultaneous inbound and outbound operations
 - Using smaller trucks outbound increases numbers of trucks and docks to support them
- Resource to your plan!



Dock Requirements What if you have no docks?

- Docks (fastest)
- Portable ramps
 - Dangerous
- Then Forklifts (2 @ 3k – 5k pounds)
 - Dangerous
 - May require access to outside load area
- Lift gate (Slowest)
 - Dangerous
 - Slowest



Auxiliary Equipment

- Power backup
- Lighting
- Climate control
- Fire safety



Delivery Sites: Supplies and Equipment Group Activity

- What supplies and equipment do you think you may need at the RSS warehouse or RDS?



Delivery Site: Supplies and Equipment

- Dock leveler / dock plates
- Material handling equipment
 - Forklifts and pallet jacks
- Pallets
- Stretch wrap
- Cold-chain pharmaceutical management and shipping products (product cases and temperature monitoring devices)
- Automation (computers, printers and supplies, communications)



Delivery Sites: Supplies and Equipment

- Personal protective equipment
 - Consult state and federal requirements
 - May include:
 - ✓ Work gloves
 - ✓ Footwear
 - ✓ Earplugs
 - ✓ First aid
 - ✓ Eye Protection
 - ✓ and more...



Material Handling Equipment

- Based upon needs at each site
- Forklifts
 - Essential if no docks
 - 3k-5k pound capacity
- Pallet Jacks
 - Can replace forklifts at sites with docks
 - Determine how many pallet jacks or forklift needed to service each expected truck or for each team
- Resource to your plan!



Staff Offices and Equipment


- Internet connectivity
- Desks
- Computers
- Phone and fax lines
- Conference room
- Fast & reliable copiers and printers
- Break area
- ID badges / name tag



Knowledge Checks 3 & 4

You do not need to plan for simultaneous receiving and shipping operations. Just focus on one thing at a time. (Select one)


A. True
 B. False





Question 1

You can replace forklifts with pallet jacks at sites without docks...

A. True
 B. False



Question 1



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**Delivery Sites:
Planning Considerations**

Delivery Site: Space Requirements

- Varies by need!
 - Inhalational anthrax compared to pandemic influenza
- Balance temp storage with long-term storage needs
- Cross docking reduces storage needs
- 10-foot wide aisles assists two-way traffic
- Incorporate administrative areas
- Incorporate staging areas
- Resource to your plan!

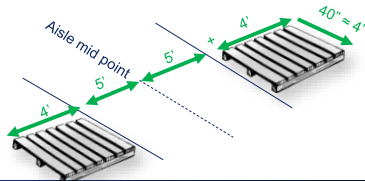
Palletized Product Space Needs

- Most DSNS-provided pallets are 48" long x 40" wide
- 1 pallet = 16 square feet
- With 10' aisle = 36 square feet



Palletized Product Space Needs

Pallet with 10' Aisle:
Pallet Length: 4' + 5 (1/2 aisle width) = 9'
Sq Ft: 9' X 4' (pallet width) = **36 Sq Ft**



Palletized Product – Anthrax Scenario

- Example – Atlanta MSA ≈ 6 million population
 - 96 cases doxy / cipro per "standard" pallet
 - 100 bottles per case
 - 9,600 bottles per pallet
 - 22 pallets to a truck
 - **6 million / 9,600 ≈ 625 pallets** 9 ≈ 22,500 square feet
 - **625 / 22 ≈ 28 trucks for 10-day unit of use only within hours**
 - **625 / 22 ≈ 28 trucks for 50-day unit of use soon thereafter**
 - Plus additional treatment MCMs



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Palletized Product – Anthrax Scenario

- Example – Cobb County, GA ≈ 800,000 population
 - 96 cases of doxy / cipro per "standard" pallet
 - 100 bottles per case
 - 9,600 bottles per pallet
 - 22 pallets to a truck
 - **800,000 / 9,600 ≈ 84 pallets** ≈ 3,024 square feet
 - **84 / 22 ≈ 4 trucks for 10-day unit of use within hours**
 - **84 / 22 ≈ 4 trucks for 50-day unit of use soon thereafter**
 - Plus additional treatment MCMs



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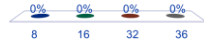
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Knowledge Checks 5 & 6

For planning purposes, a standard pallet, including aisle space, occupies how many square feet?

- A. 8
- B. 16
- C. 32
- D. 36



Question 1

Most DSNS pallets of doxy and Cipro contain how many 10-day unit of use bottles


- A. 840
- B. 1,000
- C. 8,600
- D. 9,600



Question 1

Summary

- Numerous options for SNS delivery sites and the management of these sites
- There are many ways to increasing velocity throughput
- Well-conceived plans can overcome constraints
- Resource to your plan!
- Time can be critical!



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QUESTIONS?
