Stockpiling Medical Countermeasures for Chemical Threats

How Can We Create Preparedness?

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Scoping the Problem

• Chemicals are everywhere
  ─ More than 120 chemicals listed on the DHS Chemical Terrorism Risk Assessment

• Chemicals are fast
  ─ Symptoms can appear within seconds
  ─ Death can occur within minutes to hours

• No time to send a push package out from the SNS

How can Stockpiled MCMs Help??

• The CHEMPACK program is an ongoing initiative of the DSNS through which antidotes to nerve agents are forward deployed for civilian use.

• CHEMPACK containers are self-contained units placed in centralized locations to enable first responders to quickly administer life-saving antidotes and save lives.

CHEMPACK is a back-up for local supplies.
Why CHEMPACK?

• SNS has a 12-hour response time, too long in the event of a chemical attack
• State and local governments have limited or no chemical/nerve agent antidote stocks
• Hospitals carry very limited supplies of treatments for nerve agent exposures
• Nerve agent antidotes are costly and have variable shelf lives—*not an easily sustainable resource*

*How can we make it better??*

*ASPR: Resilient People. Healthy Communities. A Nation Prepared.*
• Midazolam as an improved anticonvulsant
  — For nerve agents **AND** status epilepticus
  — For adults **AND** children
  — In easy-to-use autoinjectors

• Midazolam has the highest potency, fastest seizure cessation against nerve agent challenge

• IM Midazolam is non-inferior to IV Lorazepam against status epilepticus in RAMPART study

**BARDA is supporting the development of Midazolam for both indications**
Stockpiling for Chemical Response

• Get it there fast—*have it there already*
• Drugs with everyday uses—and chemical MCM applications
  – Example: anticonvulsants
  – Example: burn dressings
  – Example: cyanide antidotes/smoke inhalation treatments
• Advantages of ‘user-managed inventory’
  – Minimized amount of unused and expired product
  – Community familiarity
  – Easy access in emergency

*Fast Action Saves Lives*

*ASPR: Resilient People. Healthy Communities. A Nation Prepared.*
Thank You!