Model Procedures for Response to a Package with Suspicion of a Biological Threat

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Model Procedures for Response to a Package with Suspicion of a Biological Threat was developed using the International Association of Fire Chiefs Model Procedures for Responding to a Package with Suspicion of a Biological Threat released in January 2004 written in cooperation with the FBI's Hazardous Materials Response Unit. The document provides a model procedure for first-arriving emergency personnel to respond to potential bio-terror events primarily involving suspicious letters, packages or containers; it was created to serve as a model for all types of fire departments in all types of communities.

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FIRST RESPONDER DECISION MATRIX
Package with Suspicion of Biological Threat

Assessment

No Threat
- Notify local law enforcement
- Jointly determine how the package will be disposed of or removed
- Seal and double-bag
- Wash hands or affected area

Threat Suspected or confirmed
- Take initial actions
  - Establish hot, warm and cold zones; determine appropriate level of PPE
  - Shut down HVAC and any mail processing machinery
  - Isolate exposed individuals
  - Deny entry and preserve evidence

Request assistance
- Joint threat assessment or consequence consultancy

Establish unified command

Field screening
- Decontaminate and transport exposed individuals as needed.

Package transported to lab for testing

Law Enforcement (local, state, FBI WMD coordinator, U.S. Postal Inspector)
Additional fire service responders (e.g. HMRT) and EMS providers
Local threat assessment center [if applicable]
Public health department (local, state, CDC)
Purpose:

The purpose of these guidelines is to provide a model procedure for first-arriving emergency service personnel for addressing potential bioterror events primarily involving suspicious letters, packages or containers.

This model provides a framework for building a local protocol tailored to a specific community. It was created to serve as a model for all types of fire departments in all types of communities. While some information may reach beyond the typical scope of the first responder, it is outlined so that a first responder will have knowledge of the broader process in which they may be requested or required to assist.

Definitions:

**Definition of a biological threat:** Any biological material capable of causing death, disease, or other biological malfunction in a human, an animal, a plant, or another living organism; deterioration of food, water, equipment, supplies or material of any kind; or harmful alteration of the environment. Also, an expression of intention to use any such material for such purposes.

**Definition of emergency service:** The industry comprised of fire, law enforcement and emergency medical service providers who respond to an emergency; includes emergency management.

**Definition of a first responder:** An emergency worker who responds to an incident within a set amount of time. The term is usually specific to fire, law enforcement and EMS’ immediately arriving assets. Those arriving on scene at later intervals may be called a responder, an emergency responder, a secondary responder, a subject matter expert or a special law enforcement assignment.

**Definition of a hazmat responder:** A trained and certified individual who is a member of a hazardous material response team and qualified to respond to incidents involving toxic industrial chemical, chemical warfare agents and other weapons of mass destruction. A hazmat response specialist will have additional training to respond to specific weapons of mass destruction.

**Definition of a package:** A letter, box, jar, suitcase or any other container that may hold a suspect material.

**Definition of weapons of mass destruction (WMD):** WMDs may be any nuclear, biological, incendiary, chemical, explosive or radiological weapon that may be used for death or destruction. For the purpose of this document, we will be referring to only biological agents.
Identifying and Assessing Biological Threats

1) Personnel safety is the number-one priority in handling any suspected bioterror event.

2) **Emergency Service Personnel Must:**

   1. Perform a scene survey (size-up) that includes a risk assessment of the threat for an improvised explosive device (IED) prior to approaching any suspicious package. If an explosive threat exists, or an explosion has occurred, evaluate the scene for a secondary IED. If an explosive threat exists, it will take precedence over any biological threat until rendered safe.

   2. **Not touch, move or open any suspicious package until a risk assessment on the package can be performed in coordination with hazmat personnel and law enforcement!**

   3. Notify appropriate law enforcement (local, state and FBI WMD coordinator, postal inspectors) when a potential threat is identified.

   4. Don protective gloves (surgical, vinyl, etc.) as the **minimum** level of protective clothing for incidents involving suspicious packages.

   5. Use NIOSH-approved respiratory protection when the risk assessment indicates a respiratory threat. Many biological agents pose a significant health risk by inhalation.

   6. Meet minimum competencies at the Hazardous Materials – Technician level according to the following laws and standards when handling unknown or suspicious packages:
      a. OSHA: 29 CFR 1910.120 (q),
      b. EPA: 40 CFR 311, or
      c. NFPA: 472, 473.

   7. Ensure that materials are safely packaged. Try to retain enough suspicious material for:
      a. Laboratory analysis, if necessary;
      b. Use as criminal evidence, regardless of whether the threat is ultimately determined to be infectious, toxic or a criminal hoax.

   8. Transfer custody of evidence to a law enforcement officer as soon as possible. Maintain chain of custody by obtaining a record of names and signatures every time custody of a suspicious material or sample for laboratory analysis changes hands.

   9. Complete an incident report with the initial responding law enforcement agency, which will be forwarded to the local FBI WMD coordinator.
Assessment of Situation

1. Assess the hazard by:
   a) gathering information from the reporting party, bystanders, witnesses and any other first responders.
   b) determining who has physically had contact with the package.
   c) conducting an initial evaluation of the package; consider using binoculars while standing a safe distance away from the suspicious package.

2. Determine the answers to the following questions
   a. Was the package accompanied by a verbal or written threat? (see Appendix A on threat considerations)
   b. Is the package open, leaking, giving off an odor or have any suspicious markings?
   c. If the package is open, was any substance released from the package?
   d. Is anyone who touched the package feeling ill?
   e. Is the package making noise?
   f. Are there any wires protruding?

3. When possible, the final hazard determination should be a coordinated effort with a hazardous material response team (HMRT) and a bomb squad.
Decontamination Guidelines for Personnel Exposed to a Suspicious Package Containing a Substance or Accompanied by a Threat

1. Unopened, no leak or exposure
   a. Thoroughly wash hands or affected area with soap and water.
   b. Public health department may be notified for further assistance.

2. Unopened, oily or granular leak, no exposure
   a. Thoroughly wash hands or affected area with soap and water.
   b. Shower at home with soap and water.
   c. Launder clothes separately in hot water with soap.*
   d. Public health department may be contacted for further assistance.

3. Opened, no exposure
   a. Thoroughly wash hands or affected area with soap and water.
   b. Public health department must be notified.

4. Opened, oily or granular substance present, with exposure to:
   a. Hands only (minimal contact)
      i. Thoroughly wash hands or affected area with soap and water.
      ii. Change and place clothes in a sealed plastic bag.
      iii. Shower at home with soap and water, shampoo hair.
      iv. Launder clothes separately in hot water with soap.*
      v. Public health department must be notified.
   b. Hands and clothes
      i. Remove clothes and seal in plastic bag onsite.
      ii. Gross decontamination by emergency service that is based on and justified by the hazard assessment.
      iii. Transport to medical facility for evaluation after decon.
      iv. Leave contaminated clothes onsite for later pick-up by public health or other appropriate agency.
Additional Information on Biological Weapons

Bio: Just One of Many Threats

Many different threats can be sent through the mail. The initial triage, or sorting and allocation of treatment to individuals according to a system of priorities for any threat situation, must consider all hazards. A critical element to be performed by the first responder is assessing for the presence of:

- Explosive devices
- Radiological hazards
- Chemical hazards
- Biological hazards.

Effective, well-tested procedures exist for detection and response to explosive devices, chemicals and radiological materials. This document is specifically designed to deal with suspected biological threats.

Unlike chemical and radiological agents that are rapidly known and require immediate consequence management, biological agents are not as immediately recognizable and consequence management may be delayed, for example by therapy or vaccinations, and may be managed by health care workers. However, effective countermeasures are available against many of the bacteria, viruses and toxins that might be used. If we develop a solid understanding of the biological threats we face and how to respond to them, many effects may be prevented or minimized.

About Bio

Biological agents usually do not make people sick instantaneously. Most biological agents have an incubation period, which ranges from three to seven days. Final confirmatory test results will usually be available from the LRN laboratory in about two days, so there will be enough time to form and coordinate an appropriate response, including treatment when appropriate, before symptoms appear. Dramatic steps such as closing large buildings (but closing areas to the building where there is an incident and controlling access to that area are logical steps if the threat is viable) are not usually appropriate until the LRN results have been received. However, where other indicators raise suspicions, small areas may be isolated until the final report is received.

In the event that microbiological tests in an LRN laboratory produces a positive result, decisions regarding containment, isolation or quarantine and treatment of potentially exposed individuals must be made as an integrated process involving...
local public health, law enforcement and hazmat responders. Preplanning, training and rehearsal are essential to making this work. The process for responding in these circumstances is laid out in detail in the "Technical Assistance for Anthrax Response" issued by the National Response Team (www.nrt.org).

It is also important to note that some biological threats may not be aimed directly toward infecting people. They may be aimed at contaminating or otherwise decimating food supplies. Agricultural bioterrorism can be carried out via the mail and can spread rapidly throughout commercial and private ranches and farms. For more information on agroterrorism contact the U.S. Department of Agriculture or visit www.aphis.usda.gov.

Diseases caused by:

- **Bacteria**
  - Anthrax
  - Tularemia
  - Plague
  - Brucellosis
  - Cholera
  - Q Fever
  - Glanders

- **Viruses**
  - Smallpox
  - Viral hemorrhagic fevers (Ebola, Marburg, Lassa, etc.)
  - Venezuelan Equine Encephalitis (VEE)

- **Toxins**
  - Ricin
  - Botulinum (Botulism)
  - Staphylococcal Enterotoxin B (SEB) (Food Poisoning)
  - Aflatoxin
Media Coverage

Bioterror incidents will generate media interest regardless of the credibility of the threat. Be prepared to face intense media coverage of the incident.

It is imperative that the PIO's from first responding agencies coordinate their efforts from the outset of any potential bioterror event.

Media releases not carefully crafted jointly by public safety, public health and law enforcement can cause public panic, high demand on public health resources and a negative impact on the criminal investigation.

1. A public information officer (PIO) should be established to handle media inquiries.

2. First responding agencies that do not have PIOs should defer to an agency within the unified command system that does employ one.

3. Bioterror incidents usually involve several agencies. There may be several PIOs present, each representing the interests of his/her own agency. It is essential that PIOs use a joint information system with information coordinated among agencies before release.
Appendix A:

Identifying Suspicious Packages

Suspicious packages should be risk assessed for articulated threats. Examples would include:

- Actual threat message in or on the package
- Addressee in position of authority, e.g., government employee, political figure, private sector executive
- Addressee in controversial business, e.g., Planned Parenthood, chemical industry, forestry

What kind of packages should be considered suspicious?

Some characteristics of suspicious packages and envelopes include the following:

- Inappropriate or unusual labeling
  - Excessive postage
  - Handwritten or poorly typed addresses
  - Misspellings of common words
  - Strange return address or no return address
  - Incorrect titles or title without a name
  - Not addressed to a specific person
  - Marked with restrictions, e.g., “Personal,” “Confidential” or “Do not x-ray”
  - Marked with any threatening language
  - Postmarked from a city or state that does not match the return address

- Appearance
  - Powdery substance felt through or appearing on the package
  - Oily stains, discolorations or odor
  - Lopsided or uneven envelope
  - Excessive packaging material such as masking tape, string, etc.

- Other suspicious signs
  - Excessive weight
  - Ticking sound
  - Protruding wires or aluminum foil

If a package or envelope appears suspicious, NON-EMERGENCY PERSONNEL SHOULD NOT OPEN OUR TOUCH IT. Emergency personnel should limit direct contact with the package. Ideally, only those with hazardous material training should proceed to handle the package when necessary.

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2 Based on the Centers for Disease Control and Prevention’s FAQs regarding anthrax. www.bt.cdc.gov