Biological Weapons Response Template and Decision Tree

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Abstract

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BIORESPONSE TEMPLATE

- **The Bioresponse Template is an integrated, full-spectrum response strategy designed to mitigate the consequences of a bioterrorist attack aimed at a civilian population**

- **The template can be used by any community or government as a starting point to formulate its own bioresponse plans**

BW IRP DECISION TREE

Continuous Surveillance

Public Health Surveillance

Unusual Health Event (Y/N)

Expanded Surveillance

Active Investigation

Medical Diagnosis

Epidemiological Investigation

Criminal Investigation

Key Decisions

- Major public health event (Y/N)
- Cause and population at risk
- Prophylaxis, treatment, isolation
- Appropriate emergency response

Emergency Response

Command and Control

Hazard Assessment, Mitigation, & Control

Prophylaxis & Immunization

Public Information

Care of Casualties

Control of Affected Area & Population

Resource & Logistic Support

Continuity of Infrastructure

Fatality Management

Family Support Services

BW RESPONSE COMPONENTS & KEY DECISIONS

Continuous Surveillance

Key Decision

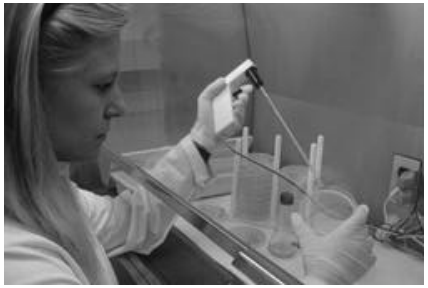
Decide if an unusual public health event has occurred.

Initiate Active Investigation

SURVEILLANCE

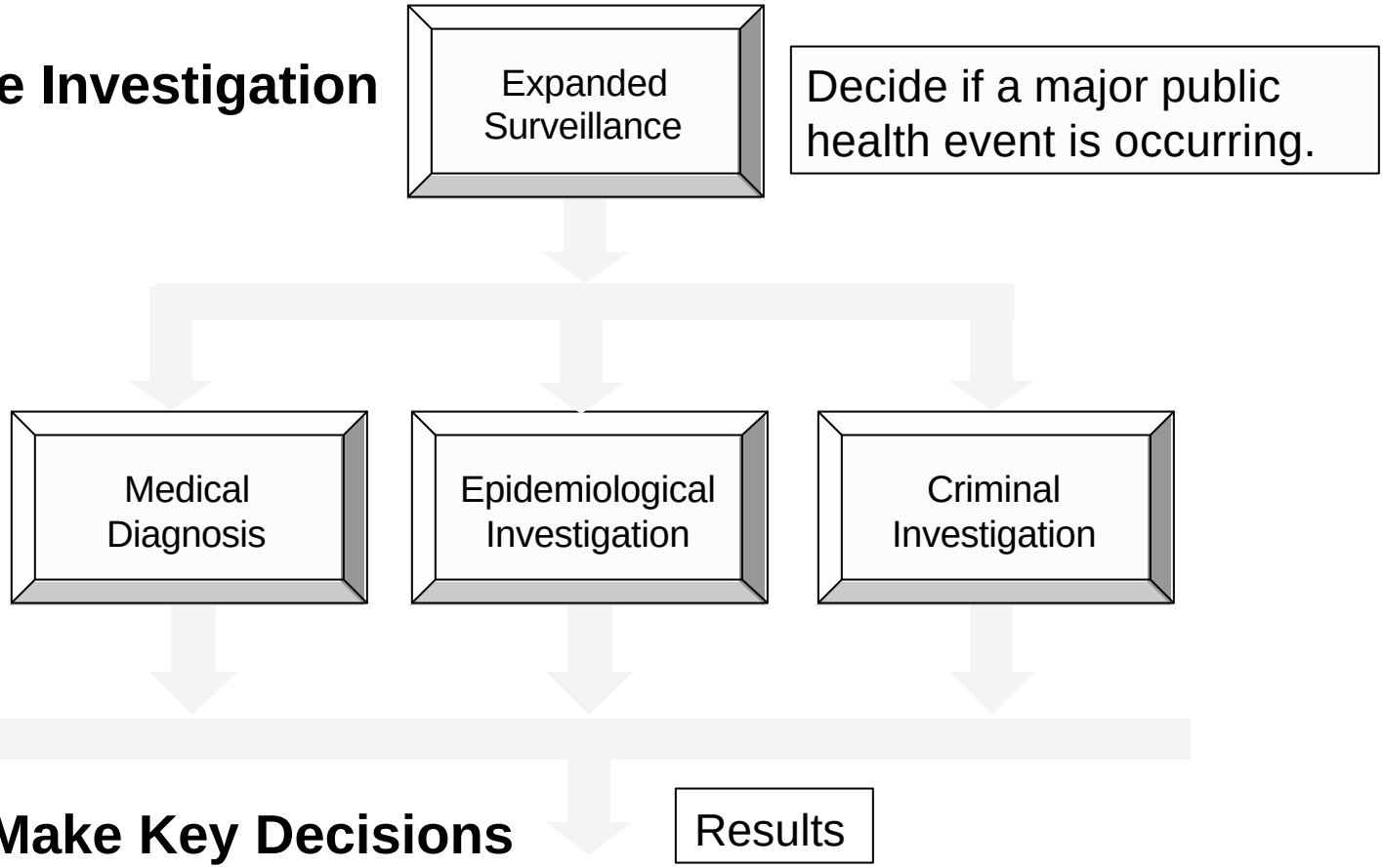
Medical surveillance improves the chances of quickly detecting unusual medical events:

- **Medical staff should be trained to be alert to unusual clusters of disease symptoms indicative of bioterrorist activity**
- **Initiates the four *active investigation* components**

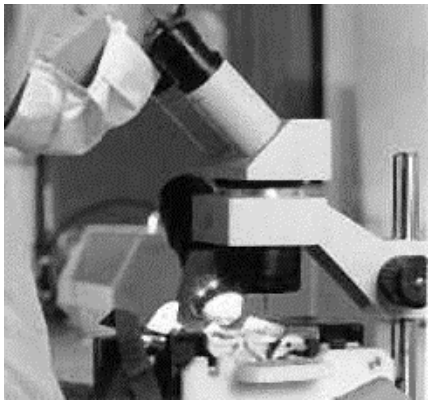


BW RESPONSE COMPONENTS & KEY DECISIONS

Active Investigation



MEDICAL DIAGNOSIS



- **Local officials should have established procedures for confirmation and definitive diagnosis of suspected BW agents**
- **Undertake clinical lab tests**
- **Obtain presumptive diagnosis and preliminary lab ID**
- **Ship samples to CDC/USAMRIID and to USDA**
- **Obtain confirmed diagnosis and agent ID**

EPIDEMIOLOGICAL INVESTIGATION

- **Integrate epi and criminal data gathering and sharing**
- **Conduct information and contact-tracing efforts**
- **Establish case definition and update with new findings**
- **Analyze distribution of cases, places, and time**
- **Define population at risk**
- **Recommend measures for containment, prevention, treatment, and protection**

CRIMINAL INVESTIGATION

- **Activate investigation task force**
- **Conduct interviews with hospital staff, patients, and others**
- **Establish tip-line**
- **Collect evidence, such as unexplained powder residue**
- **Interface with epi investigation and share information**

BW RESPONSE COMPONENTS & KEY DECISIONS

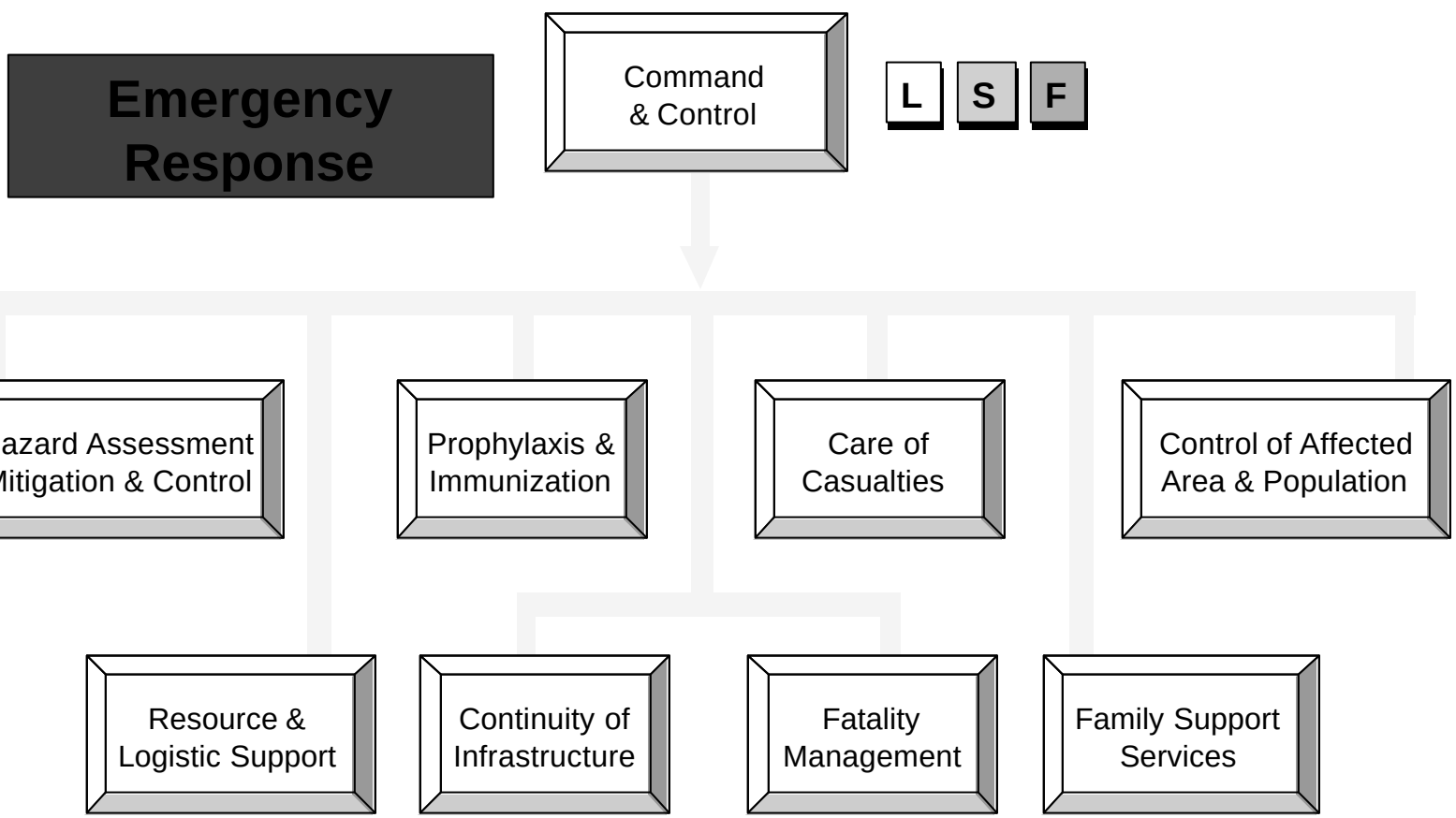
Results from the Active Investigation

Key Decisions

- Decide on a potential cause and the population at risk.
- Decide on the appropriate medical prophylaxis, treatment, and isolation measures.
- Decide on appropriate activation of response functions and strategies.

Activate Emergency Response

BW RESPONSE COMPONENTS & KEY DECISIONS



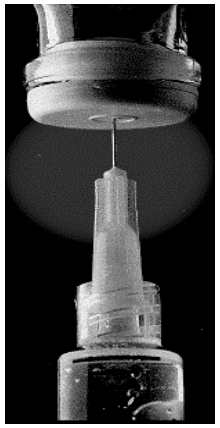
COMMAND AND CONTROL

- **Activate EOC**
- **Implement Emergency Operations Plans**
- **Deploy all relevant assets**
- **Provide representatives to JOC and ROC**
- **Declare emergency/disaster**

HAZARD ASSESSMENT, MITIGATION, & CONTROL

- **Conduct environmental sampling (air, water, soil, surfaces, animals, insects, plants, as applicable)**
- **Conduct control and decontamination measures**
- **Perform vector and animal control**
- **Control food sources**
- **Support sampling and decontamination teams**

PROPHYLAXIS & IMMUNIZATION



- **Mass prophylaxis involves the distribution and medical application of appropriate antibiotics, vaccines, or other medications in order to *prevent* disease and death in exposed victims**
- **The timeliness with which medical prophylaxis can be implemented effectively is critical to its success**

- **Local officials should address the issue of providing priority prophylaxis for use by "essential" emergency personnel**

CARE OF CASUALTIES

- **Provide care to initial patients in existing hospitals**
- **Activate Modular Emergency Medical System**
- **Establish medical command centers in community hospitals**
- **Provide medical regulation on “level of treatment”**
- **Establish casualty collection sites (e.g. NEHC, POD)**
- **Establish ancillary acute care facilities (e.g. ACC)**
- **Establish community outreach (particularly for contagious disease)**

CONTROL OF AFFECTED AREA & POPULATION

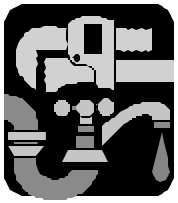
- **Physical control:**
  - **Provide security at medical sites and vital installations**
  - **Limit gatherings**
  - **Provide ingress/egress routes for responders**
- **Public information control:**
  - **Operate local incident help-line**
  - **Post incident and self-help information**
  - **Conduct senior officials' press conferences**

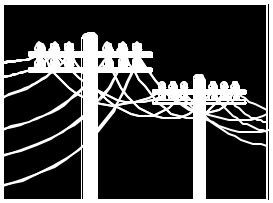
RESOURCE & LOGISTICS SUPPORT

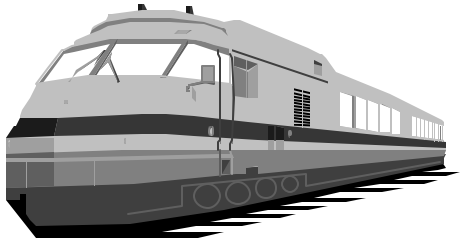
- **Establish mobilization centers and distribution points**
- **Establish centralized reception center for support personnel**
- **Provide housing and feeding to emergency responders and home-bound victims**
- **Coordinate transportation and delivery of supplies**

CONTINUITY OF INFRASTRUCTURE

- **Activate continuity of operations and staffing plans**
- **Close business offices to minimize contact with public**
- **Activate alternate operating facilities**
- **Identify essential personnel and request priority treatment and protective measures**
- **Activate mutual aid among industry**







FATALITY MANAGEMENT

- **Fatality management:**
  - **Rapid central processing of remains**
  - **Long-term storage facilities**
  - **Determination of final disposition**

- **Activation of a planned, centralized command system must occur to manage the response**

FAMILY SUPPORT SERVICES

- **Provide non-medical victim assistance**
- **Conduct notification of next-of-kin**
- **Provide crisis counseling**
- **Implement state and federal assistance programs**
- **Implement central coordination of volunteer service organizations**

CONCLUSIONS

Timing of response is the key:

- **Surveillance to detect attack**
- **Make response decisions quickly**
- **Implement pre-existing response plans**
- **Distribute prophylaxis (if applicable) quickly**
- **Keep up with flow of sick and worried well**
- **Establish system to receive and rapidly utilize outside help**

Early and continuous coordination among the law enforcement, medical, emergency management, and public health communities is fundamental

CONCLUSIONS (Cont.)

- **A BW terrorist event would primarily represent a public health *catastrophic medical emergency***

- **The most crucial aspect of an effective total response system will be the medical response - need medical community buy-in and participation**

CONCLUSIONS (Cont.)

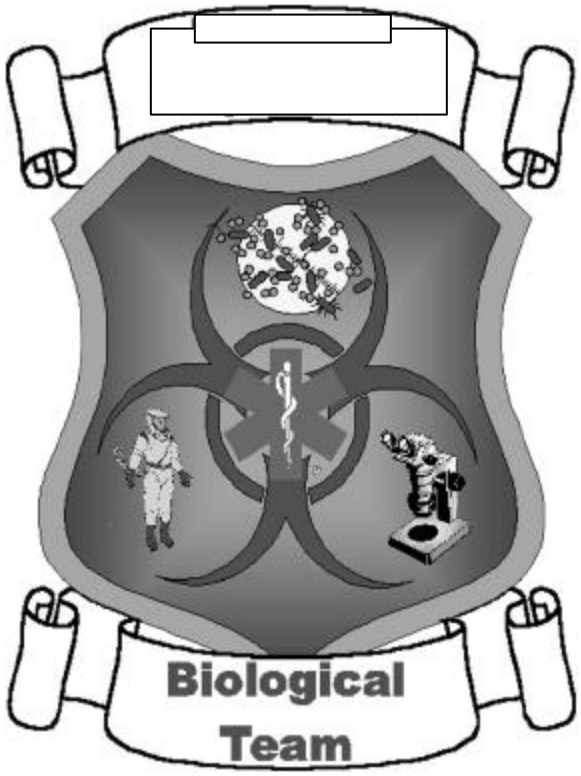
Timely and effective medical response to a large number of BW casualties would require the rapid establishment of the Modular Emergency Medical System (MEMS):

- **Neighborhood Emergency Help Centers (NEHC) to receive casualties and worried well, provide triage, and dispense pharmaceuticals and instructions**
- **Acute Care Centers (ACC) to provide definitive and supportive care to the critically ill**
- **Sector outreach to provide instructions, pharmaceuticals, and mobilization of citizen self-help for the critically ill that stay at home**

Pamphlets forthcoming for MEMS, NEHC, and ACC

CONCLUSIONS (Cont.)

- **BW response must be led by local community**
- **City officials will need to make difficult decisions on a presumptive basis**
- **Need regional, state, and federal assets for BW incident**
- **Need to consider long-term effects, distributed attacks, and agricultural targets**



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