What To Expect From Your Local Hospital's Response to Emergency Events

Satellite Conference
Thursday, April 22, 2004
12:00-1:30 p.m. (Central Time)

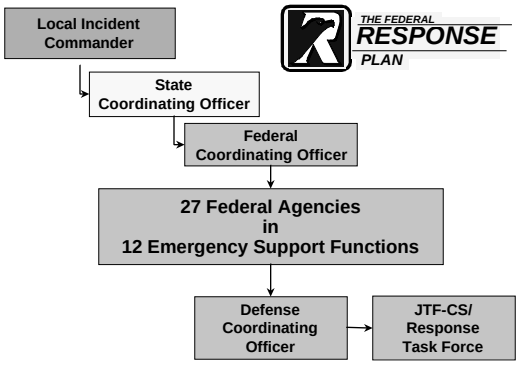
Produced by the Alabama Department of Public Health
Video Communications Division

Faculty

Thomas E. Terndrup, MD
Professor and Chair Dept. of Emergency Medicine
Director, Center for Emergency Care
and Disaster Preparedness
University of Alabama at Birmingham

Objectives

- To identify the role of local and regional hospitals in responding to mass casualty incidents (MCIs)
- To identify potential barriers to hospitals' effective participation in MCIs
- To describe key planning activities, policies and procedures that will contribute to the maintenance of hospital functionality during a MCI.



Are We Prepared to Respond?

- Sec. Thompson, October 3, 2001
  - "we are prepared to move rapidly to contain and treat any problematic disease…granted, we did not find any signs of bioterrorism."
- TOPOFF exercise - plague outbreak (5/00)
  - by day 4, 3,700 cases and 950 deaths
- Dark Winter - smallpox outbreak (6/01)
  - day 13, spread 25 states & 15 countries

Hospital Preparedness

- 73% hospitals unprepared bio/nuclear
  - *Ann Emerg Med* Nov. 2001;38:562.
  - 100% reported needing more training
- 82% hospitals had no bio/chem plan
  - *Am J Pub Health* May 2001;91:710.
  - 88% had no self-contained breathing appartus

Hospital Preparedness

- **Recommended preparations WMD**
  - **_JAMA_ Jan. 2000;283:242.**
  - **Prompt recognition; staff/facility protection; decontamination procedures; medical therapy; coordination with external emergency response and public health agencies.**

WTC, September 11, 2001

What would happen if 50% of evacuees south of Canal St. needed hospital treatment?

WTC attacks, first 48 hours

- **1,103 (65%) patients@ 5 Manhattan hospitals were survivors rx. WTC related injury or illness**
- **50% treated within 4 hours**
- **181 (16%) admitted, 4 died in ED**
- **Majority inhalation or ocular injury**

MMWR 2002:51(Jan. 11).

Medical Disaster

- **A medical disaster occurs when the destructive effects of natural or manmade forces overwhelm a community's ability to properly allocate existing resources**
- **Terrorism's impact on the medical infrastructure**
  - **World Trade Center Bombing - 6 dead; 1,000 injured**
  - **Oklahoma City Bombing - 168 dead; 759 injured**
  - **Tokyo Subway Attack - 12 dead; ~5,500 injured**

Shopping Mall Scenario

- **Anthrax aerosolized - shopping mall ventilationsystem:**
  - **10,000 present 9,000 people exposed**
  - **Terrorist announcement @ 24 hours**
- **90% received antibiotics by end day 2,**
  - **10% cannot be found initially**

  RESULTS:
- **Total number hospitalized: 4,950**

  ICU 2,925, deaths 855, ventilators 2,601
- **"Small" scale bioterrorism overwhelms city's medical care resources**

Col. Ed Eitzen: USAMRIID

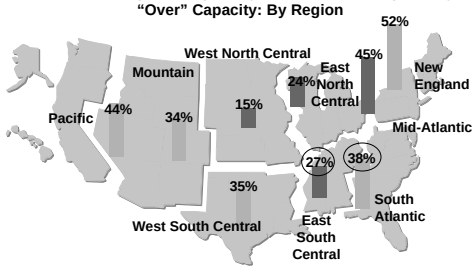
Alabama – Capacity Assessment

- **Population** ~4,500,000
- **Hospitals** 114
- **Hospital Discharge** 622,030
- **Staffed Beds** 15,669
- **ICU Beds** 829
- **Med/Surg Beds** 6,419
- **ER Bays** 1,140
- **ED Visits** 1,951,121

Source = American Hospital Association Hospital Guide 2001-2002

Potential Barriers: Full Hospitals & Emergency Departments

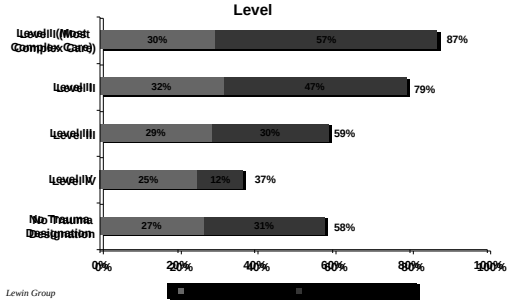
Percent of Hospitals Reporting that Their ED is Operating "Over" Capacity: By Region



Lewin Group

Among Level I Trauma Centers, nearly 90 percent are "at" or "over" capacity

Percent of Hospitals Reporting ED Capacity Issues by Trauma Level



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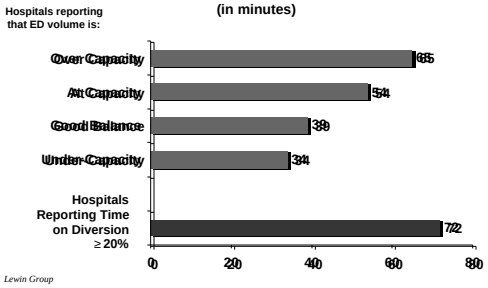
Longer Waiting Times for Treatment…

Average Waiting Time for Treatment by a Physician or Other Provider in November (in minutes)



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Readiness of Hospitals and Healthcare Organizations for Disasters?

- **JCAHO standard EC.1.4 (emergency management plan)**
  - **"Cooperative planning among health care organizations that, together, provide services to a contiguous geographic area to facilitate the timely sharing of information about:**
    - **Essential elements of their command structures and control center for emergency response.**

Readiness of Hospitals and Healthcare Organizations for Disasters?

- **JCAHO standard EC.1.4 (emergency management plan)**
  - **"Cooperative planning among health care organizations that, together, provide services to a contiguous geographic area to facilitate the timely sharing of information about:**
    - **Names, roles, and telephone numbers of individuals in their command structures.**

Readiness of Hospitals and Healthcare Organizations for Disasters?

- **JCAHO standard EC.1.4 (emergency management plan)**
  - **"Cooperative planning among health care organizations that, together, provide services to a contiguous geographic area to facilitate the timely sharing of information about:**
    - **Resources and assets that could potentially be shared or pooled in an emergency response.**

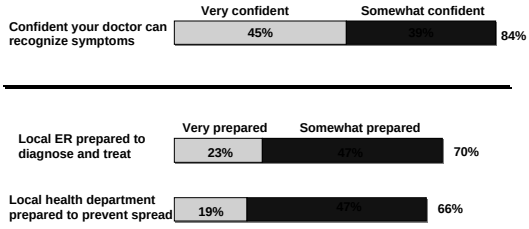
Readiness of Hospitals and Healthcare Organizations for Disasters?

- **JCAHO standard EC.1.4 (emergency management plan)**
  - **"Cooperative planning among health care organizations that, together, provide services to a contiguous geographic area to facilitate the timely sharing of information about:**
    - **Names of patients or deceased individuals brought to their organizations to facilitate identification and location of victims of the emergency."**

Readiness of Hospitals and Healthcare Organizations for Disasters?

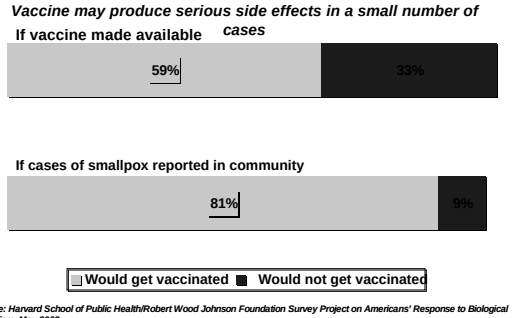
- **Does the public think we're ready?**

Public Confidence in the Health System in Case of Smallpox Attack



Source: Harvard School of Public Health/Robert Wood Johnson Foundation Survey Project on Americans' Response to Biological Terrorism, May 2002

Americans Who Would Get Smallpox Vaccination as Precaution Against Terrorist Attack



Source: Harvard School of Public Health/Robert Wood Johnson Foundation Survey Project on Americans' Response to Biological Terrorism, May 2002

JCAHO Hospital Preparedness Changes

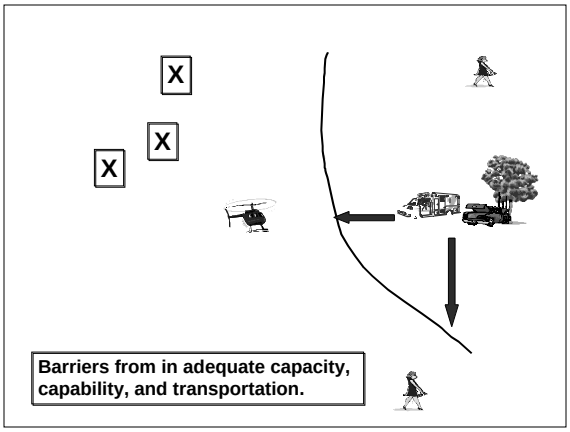
- **EC.2.4 Implementing the emergency plan**
  - **clearly defined process**
  - **staff education on roles & responsibilities**

JCAHO Hospital Preparedness Changes

- **EC.2.9.1 Drills are conducted regularly to test emergency management.**
  - **Annually with simulated patients**
  - **Annual community wide drill, based upon hazards vulnerability assessment**

Role of Hospitals – PH Emergencies

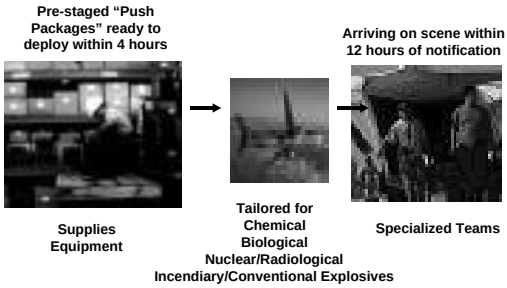
- **Be available and responsive to acute needs.**
- **Prepare staff members for anticipated incidents.**
- **Make sufficient equipment available for response.**
- **Work with local emergency and public health management in planning and exercising.**
- **Not all hospitals have same role….**



Other Potential Barriers…

- **Equipment**
- **Staff training**
- **Personnel fully occupied**
- **Command structure variability**
- **Not integrated with emergency and public health response**

Specialized Resources Rapid Deployment



What about EMTALA? (Emergency Medical Treatment And Labor Act)

- Requires hospitals to perform medical screening exam and stabilization all patients

What about EMTALA? (Emergency Medical Treatment And Labor Act)

- Inspector General's office (bio attack)
  - Must meet EMTALA "within the hospital's capability and capacity and/or within the provisions of a community response plan developed by state/local government"

What about EMTALA? (Emergency Medical Treatment And Labor Act)

- Inspector General's office (bio attack)
  - May be situations "where referral of a potentially exposed patient prior to the actual examination is appropriate" within the community response plan.

"Public Health Preparedness and Response for Bioterrorism in Alabama" - CDC (FY04)

Focus Areas	
A. Administration & Planning	$ 5,146,000
B. Epidemiology & Surveillance	$ 4,437,000
C. Biological lab Capacity	$ 984,000
D. Chemical Lab Capacity	$ 1,851,000
E. Health Alert Network	$ 2,468,000
F. Risk Communication	$ 410,000
G. Training & Education	$ 1,296,000

Bioterrorism Hospital Preparedness in Alabama" HRSA, FY04

• Governance & Administration	$ 285,000
• Pediatric Hospitals	$ 579,000
• Other Hospitals	$ 2,494,000
• Federally Qualified Health Centers	$ 400,000
• Hospital Bed Capacity	$ 350,000
• Pharmaceutical Caches	$ 405,000
• Communication & Info Technology	$ 450,000
• Emergency Medical Services	$ 300,000
• Hospital Labs	$ 330,000
• Hospital Surveillance	$ 500,000
• Education & Preparedness Training	$ 574,000
• Terrorism Preparedness Exercises	$ 911,000

What more should we be doing?

- ✓ Pharmaceuticals
  - Assess requirements
  - Backup procedures
- Staff members
  - Education
  - Practice scenarios
- Region
  - Inter-facility exercises
- ✓ State
  - Understand assets
  - Communicate
- ✓ P&T committee
  - Anti-microbials
  - Antidotes/vaccines
- ✓ Education
  - CE credits
  - Local exercises
- ✓ EMA/JCHD/ADPH
  - Regional exercises
- ✓ ADPH, ALEMA
  - State BT plan
  - Surveillance methods

Crisis Communications

- Assemble and organize resources
  - Resource information may include:
    - List of crisis team members, phone numbers.
    - Updated media lists.
    - Lists of emergency services.
    - Key contacts and contact information.
    - A means to communicate with volunteers and staff -- phone and fax numbers.
    - Copies of policies for potential crisis situations.
    - Emergency procedures guide.

Triage - Psychological Casualties

- Disasters cause emotional and psychological stress
  - Potential for large numbers of psychogenic casualties
- Presenting signs could be confused with organic disease

Triage - Psychological Casualties

- Triage system which maintains focus on objective signs of disease & minimizes impact of subjective complaints on the triage process
- Psychological casualties could be triaged off-site
  - As long as your plan includes that aspect

Current Preparedness

- Improved state of readiness
  - Yes, but what else should we do.
- Training and equipment updated
  - Agent recognition
  - Patient management
  - Patient decontamination
  - Patient transport

Current Preparedness

- Supplies and equipment
  - Antidotes
  - PPE
  - Decontamination

Decontamination

- Decontamination removes harmful substances
- Hospital preparedness for decontamination
- Decon of casualties arriving at the healthcare facility
- Vapor exposure
  - Liquid exposure
  - Mass casualty incident

PPE - Self-Protection

- Treat every patient with respiratory complaints and open wounds as an "infectious source"
- Normal standard universal precautions for most BW agents
- HEPA filter mask upgrade for pneumonic plague / smallpox / VHF

PPE - Self-Protection

- Special protective garments usually not necessary
- Precaution upgrades in areas of the hospital where aerosols could be generated: lab centrifuges, autopsy facilities, etc.

BT Patient Isolation Procedures

- Standard precautions
  - All patients
- Airborne precautions
  - Smallpox
- Droplet precautions
  - Pneumonic plague
- Contact precautions
  - Viral hemorrhagic fevers

Staff Preparedness

- Needs of unaffected population
- Receive large numbers of casualties
- Receive large numbers of deceased
- Rotate staff to avoid congestion and fatigue, especially personnel in PPE

- Local needs exceed local resources
- Available public health workers
- Streamline credentialing for physicians
- Provide public media with accurate, timely information

Hospital Services Sometimes Lost

- Establish alternative location and cooperative regional agreements.

National Bioterrorism Hospital Preparedness Program

http://www.hrsa.gov/bioterrorism/index.htm

To aid state, territory, and selected entities in improving the capacity of the health care system (hospitals, emergency departments, outpatient facilities, EMS systems, and poison control centers) to respond to incidents requiring mass immunization, isolation, decontamination, diagnosis, and treatment, in the aftermath of terrorism or other public health emergencies

HRSA

Preparation and Planning

Available preparedness training materials and guidance on the development of specific preparedness plans for:

- Health Care Professionals and Facilities
  - Hospitals, Academic Health Centers, Trauma Centers and EMS, Health Care Professionals, PPE, Decontamination

HRSA

Preparation and Planning

Available preparedness training materials and guidance on the development of specific preparedness plans for:

- State and Local Entities
  - Indian Nations, Border States, Regions, Metro Areas, Terroritories
- Public
  - General Public, Disabled, Social Support Services

HRSA

Emergency Response

Provides the following resources to assist hospital, emergency medical services (EMS), and outpatient facilities in responding to terrorist events and other public health emergencies:

- Initial Response Plan
- Emergency Notification Procedure
- First Responders Information
- Information Technology Systems

HRSA

Mass Casualty

Materials and guides relating to mass casualty preparedness and response:

- Personal protective equipment
- Domestic recovery
- Disaster recovery
- Bioterrorism preparedness

HRSA

Media Releases and News Briefs

Provides the most up-to-date media releases, news briefs, contacts, & other information to help hospitals, emergency medical service systems, & outpatient facilities to better respond to terrorist attacks and other public health emergencies

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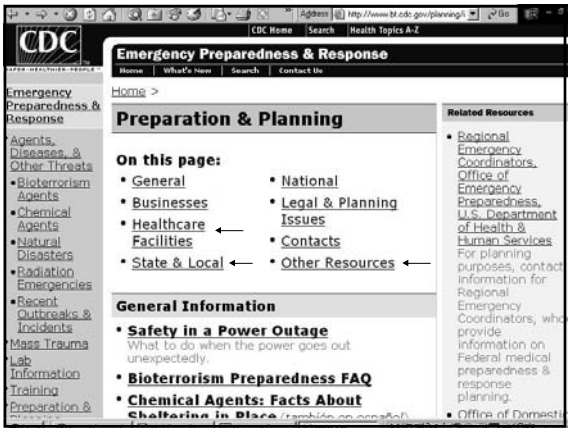
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Related Resources
Regional Emergency Coordinators, Office of Emergency Preparedness, U.S. Department of Health & Human Services
For planning purposes, contact information for Regional Emergency Coordinators, who provide information on Federal medical preparedness & response planning.


Preparedness for Healthcare Facilities
Bioterrorism Readiness Plan: A Template for Healthcare Facilities
Hospital Preparedness for Mass Casualities
State & Local Preparedness
Continuation Guidance for Cooperative Agreement on Public Health Preparedness & Response for Bioterrorism – Budget Year Four
Public Health Preparedness & Response Capacity Inventories


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Hospital Leadership Course
The courses are scheduled approximately once a month, and
acquired by a team of
(1) hospital admin
(2) ER nurse managers
(3) EMS personnel
(4) ER physicians
(5) nursing administrators and
(6) public health personnel.
There are 60 participants in each class. The process is to cho
team, select a date for training, and to send an application for
participant. MMRS applicants and CSSEP facilities will be giv
priority. If you have any question, please contact
Linda Pressley
Training Department
Noble Training Center, P.O. Box 5237


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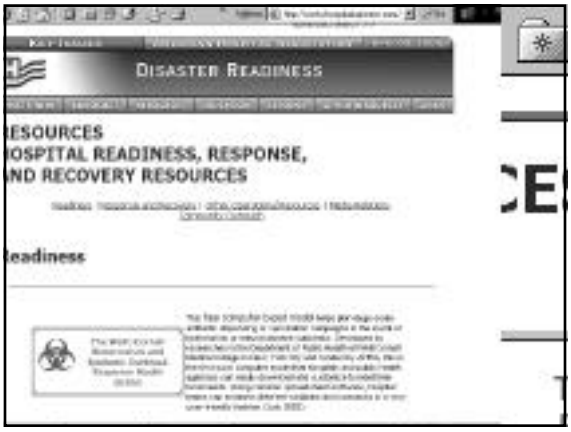
CDC Protecting Americans: Smallpox Vaccination Program
CDC Smallpox Resource Kit for Health Professionals
CDC Smallpox Preparedness Satellite Broadcast & Webcast - December 5-6, 2002
Bioterrorism-Related Anthrax. Emerging Infectious Diseases. Volume 8, Number 10. October 2002
ACIP Smallpox Vaccination Recommendations - Click here.
CDC Smallpox Vaccination & Adverse Events Training Module - Click here.
CDC Smallpox Vaccination Clinic Guide - Click here.
The Bio in Bioterrorism: Medical and Public Aspects of Major Bioterror Threats - Click version. (power point) | (Webcast)
CDC Responds: Bioterrorism and the Healthcare Epidemiology/Infection Control Team, Nov. 16, 2001 - Click here.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Lessons from Oklahoma City

Sheryl R. McLain, MS
Vice President, Communications, Oklahoma Hospital Association

- Practice disaster plans
- Flexible preparedness "(we were) shattered - physically and emotionally - on April 19, 1995"
- Medical community able to handle mass casualties.

Lessons from Oklahoma City

Sheryl R. McLain, MS
Vice President, Communications, Oklahoma Hospital Association

- Test communications, and back up methods.
- Build relationships with response agencies
  - Lessen confusion during a disaster
- Share basic patient information with and among
  - Hospitals, during & after a community-wide disaster.
- During a disaster, people need to do something to help.
- It takes a lot of resources to recover.

Components of Disaster Planning

- Risk assessment (hazards vulnerability)
- Personnel, roles & responsibilities
- Communication
- Align assets against risks

Components of Disaster Planning

- Educate and practice
  - Mass casualty
  - Triage & alternative care sites
  - Integrate community-wide emergency response

Conclusions

- Hospitals critical to community preparedness.
- Involve hospital emergency and administrative personnel in planning and policies for public health emergencies.
- Identify barriers to local and regional hospital availability.
- Utilize national resources available for hospital preparedness.

Upcoming Programs

Bridging Traditional Environmental Health and Health Promotion
Wednesday, May 5, 2004
2:00-3:00 p.m. (Eastern Time)

Transforming Vision to Reality: Potential Power of Partnership
Thursday, May 6, 2004
2:00-3:00 p.m. (Eastern Time)

Upcoming Programs

Principles for Effective Communication of Health Risks in High Concern, High Stress Situations
Friday, May 7, 2004
2:00-3:00 p.m. (Eastern Time)

For a complete listing of all programs, visit our website: www.adph.org/alphtn