

Bioterrorism Planning Guide
for
North Dakota Hospitals

July 2003



North Dakota Department of Health
Emergency Preparedness and Response

Introduction

This document is intended as a guideline for emergency planning efforts, including those involved in responding to biological disaster events. Your current emergency response plan will serve as the framework for a plan that also addresses the specific needs of biological incidents.

This guide includes an outline of what might be contained in the comprehensive emergency response (disaster) plan. The best plans, however, are based on the specific goals, needs and capabilities of the individual institution and the community it serves. Therefore, it is expected that each facility will assess its current response capabilities, determine how that compares to the level of preparedness desired, and determine planning priorities based upon functions necessary to the services they provide. It is important to protect your own staff first, then the patients already in your facility. Only after those priorities are accomplished can a facility be prepared to serve the community during a disaster.

Biological incidents differ from other disaster events in that there is no “big bang” indicating the need to activate the disaster plan. This will require continuous surveillance for threatening agents and a high level of suspicion. A biologic disaster may strain a healthcare institution by:

1. Requiring resource investments that permit prompt recognition and isolation of potentially contagious.
2. Exposing health care workers to contagious individuals.
3. Overwhelming emergency and inpatient care capabilities with a large number of critically ill people.
4. Placing financial strains on already strained institutions.

During a large-scale disaster, public and private healthcare leaders and city, state and federal governments may be forced to make many difficult decisions.

Working together in the planning process will ensure that those decisions are based on an understanding of the capabilities and limitations of those involved. All healthcare institutions are encouraged to build relationships and communicate with other agencies in their communities and regions to ensure the best possible care to victims of a biologic disaster and to protect the well public from unnecessary exposure. The very nature of a biologic disaster ensures that there will be hardships. However, joint planning can identify win-win solutions when possible, and when that is not possible, can make sure that all are “equally gored.”

Hospital Emergency Plans

The following is an outline of topics to consider including in your emergency response plans. This guideline is not intended to be all inclusive or hospital specific. As you develop your plan, address the applicable areas by describing the process and policies under which you would operate when the plan is activated or on a continuous basis to prevent or support the activation of the plan. We recommend that you address each potential threat specifically by describing details that are specific to that threat. This will provide the opportunity to make decisions as part of the planning process rather than as part of the response. Doing so decreases the fear of the unknown and enhances the response.

- I. General emergency response plans
 - a. Concept of operations
 - i. Roles of authority
 1. Joint Commission on Accreditation of Healthcare Organizations now recommends using an incident command structure for emergency/disaster response.

2. References:

- a. Hospital Emergency Incident Command Systems (HEICS)

www.hospitalconnect.com/aha/key_issues/disaster_readiness/resources/HospitalReady.html#Response

- b. Online Incident Command Training

www.cgaux.info/g_ocx/training/ics100.html

- ii. Relationships with other agencies
iii. Memorandums of understanding/mutual aid agreements

b. Continuity of administration

- i. Assignment of responsibilities
ii. Incident command system

c. Continuity of services

- i. Staffing
ii. Volunteer management
iii. Credentialing
iv. Mass patient care/surge capacity
v. Equipment and supplies
vi. Assignment of floor space for emergency response services

d. Communications and information technology

- i. Internal emergency communications
ii. External emergency communications
iii. Public information and media communications

e. Prevention of secondary injury/transmission of infectious disease

- i. Surveillance
ii. Investigation

- iii. Isolation and quarantine
- iv. Mass prophylaxis
- v. Decontamination

- f. Mass fatality management/postmortem care
- g. Security
- h. Training and education
- i. Recovery

II. Biological incidents

- a. Smallpox
- b. Anthrax
- c. Botulinum toxin
- d. Plague
- e. Tularemia
- f. Brucellosis
- g. Q fever
- h. Equine encephalitis
- i. Hemorrhagic fevers
- j. Food-borne/water-borne outbreaks
- k. Other

III. Chemical incidents

- a. Ricin
- b. Cyanide
- c. T-2 mycotoxin
- d. Tabun
- e. Sarin
- f. Soman
- g. VX
- h. Organophosphates

- i. Other

IV. Radiological Incidents

V. Natural disasters

- a. Mass trauma

- b. Tornado

- c. Flood

- d. Snow emergency

Biological Incidents

We recommend that you extend your emergency plans by adding a section to address specific circumstances that would occur during an outbreak of each biological agent with the potential for use as a terrorist weapon. The following topics should be addressed for each biological agent.

Background

Briefly describe the agent, the disease history, the disease process, epidemiology, the potential threat as a weapon of mass destruction, the possibility of a naturally occurring outbreak, and the impact the occurrence of the disease in your community would have on your facility.

(References: www.hopkins-biodefense.org and www.slu.edu/colleges/sph/csbei/bioterrorism/index.html)

Pre-event Interventions

Many things can be done prior to the recognition of the first case of illness to prepare for and minimize the impact of an outbreak on your facility and community.

Assess your current surveillance practices and determine if the program needs to be enhanced to allow early recognition of the first cases that may present. Since the effective agents of bioterrorism will likely be those agents that we are not proficient in diagnosing and treating, develop a plan that increases your ability to identify the problem readily. Recognizing and reporting syndromes and symptoms prior to confirmed diagnosis of disease is recommended. This is known as “syndromic surveillance.” Syndromic surveillance is critical to early intervention and prevention of further transmission of disease. Consider

developing a network for sharing information with other healthcare facilities in your geographic area to identify changing trends or similar cases.

Pre-event interventions may include education and training. Determine what information your staff needs in order to respond appropriately to an event involving each specific biological agent. Develop a plan for disseminating the information and ensuring that the intended audience is able to apply the knowledge to their practice.

Consider whether designated response teams would streamline the ability to respond quickly, improve quality or enhance safety. If you develop specialized response teams, you need to define the positions that would be part of the response team, establish lines of authority and develop policies that define the role of the team. It will be important to consider how the response team will be scheduled or activated. A mechanism to address attrition of team members over time also will be needed.

When available, preventive vaccination programs for the biological threat agent should be considered. Define the conditions under which the vaccine would be offered to your employees. Include the responsibilities of the organization and the responsibilities of the employee for participation in the vaccination program.

Compare the impact to staff of a vaccination program during an outbreak versus the impact of post-event exposure treatment. Emotional preparedness of the staff for duty during an outbreak may be impacted by whether or not pre-event vaccination is offered.

Be specific in defining who will be involved or included in each planned pre-event intervention, the criteria for participation or exclusion in an intervention, when the intervention will be implemented, and how the interventions will be

accomplished. Lines of authority and responsibilities need to be clearly delineated. If interventions are to become part of standard operating procedure, develop the appropriate policies according to your hospital's expectations.

Diagnosis and Specimen Collection

Because the usual occurrence of a disease that is likely to be used as a weapon is nil or very infrequent, misdiagnosis of initial cases is a real probability. Include information that addresses the other disease processes that may be suspected when patients present with symptoms common to infection with the biological agent of terrorism. You may want to adopt protocols to assist in making the differential diagnosis rapidly.

Assess your facility's laboratory capabilities in relation to each biological agent and clearly define the policies for collection and handling of specimens. If your facility will need to send specimens to another laboratory, consider having a memorandum of understanding in place. Ensure that appropriate specimen containers, slides, shipping containers, etc., are stocked at your facility and that staff are knowledgeable about the procedures they will be required to perform.

Notification of Authorities

Define who is responsible for notification of authorities when cases are suspected and confirmed. A hospital representative should be identified to communicate with the North Dakota Department of Health and/or Centers for Disease Control and Prevention. Local law enforcement agencies also should be notified when immediate public safety issues are involved. Emergency contact phone numbers should be included in your plan.

Triage and Lockdown

For each biological threat agent, develop a plan for how patients will be received and triaged. Identify a triage location that will allow patients to be screened and directed to appropriate care without contaminating essential treatment areas and infecting additional people, including other patients, staff and the public.

Depending on the agent, define in the plan if facility “lockdown” will occur and what situations will initiate lockdown. The positions that have authority to order the lockdown should be identified. If lockdown is initiated, it will require a great deal of security. The level of authorized response of the security staff should be defined and legal implications should be considered.

Capacity

In a full-scale exposure or outbreak, facilities eventually will reach the absolute limit of how many victims they can handle. If that level is anticipated and defined, implementation of alternative plans can be part of an organized response. Anticipate what volume of patients your facility can handle and define the point at which you would divert admissions to another facility. Outline protocols for early discharge of other patients and make plans for home-care services if possible. Determine whether long-term care facilities or ambulatory-care facilities can provide care for some patients during the emergency. Consider a community plan that encourages coordination of services between facilities and identifies alternative treatment sites for use when healthcare facilities have reached their maximum capacity.

Transfer Agreements

The smooth movement of patients to additional points of care will require cooperation from other healthcare providers in the community and region. Agreements should be formalized with a memorandum of understanding or other written agreement to ensure that all involved have the same expectations about how events would unfold when masses of people need care. Plans should define usual patterns of referral and backup plans for transfers. Facilities to which you

usually transfer may already be overwhelmed with responding to a different or similar emergency.

Once your transfer patterns are defined and negotiated with other providers, you will need to address the logistics of how patients are transported from one place to another. If the need will exceed the capacity of the usual methods of transporting patients-- i.e., ambulance services-- what alternate methods could be employed? Describe what vehicles would be made available for ambulatory and nonambulatory patients and what level of staff would accompany them en route to the receiving facility. Contact those facilities that frequently transfer patients to you and coordinate plans, letting them know your criteria for accepting or denying transfers.

Patient Care Protocols for Syndromic Conditions and Confirmed Cases

Staffing

Staffing plans should be considered and defined carefully. Discuss how staffing will be impacted by one case, several cases or an outbreak. Thought should be given to how assignments can best be made to minimize risk to your employees while providing quality care to the population. Integrate your expectations under these circumstances with your current staffing policies. Strive for consistency or clearly define what changes go into effect because of this biological agent. An area to consider is whether or not staff has the right to refuse an assignment to care for victims infected with the biologic agent. Implement measures to prevent or respond to the situation of staff not reporting for duty due to fear for their own well-being or that of their families.

Room Assignment and Cohorting

Identify rooms appropriate for the care of patients infected with the organism. Consider what infection control measures would be required, such as ante rooms and negative pressure. Outline the plan for few patients and for large volumes of patients. The plan should seek to minimize exposure to staff, other patients and visitors. This may involve using routine infection control measures, designating a geographic area of the hospital, designating a limited pool of staff to the specific population affected by the biologic agent involved, modifying air flow systems or utilizing temporary facilities.

Isolation Precautions and Visitation Policies

Define the transmission-based precautions that would apply to the disease processes as a result of the biological agent. The initiation of precautions should coincide with onset of symptoms prior to confirmed diagnosis. It will be necessary to outline criteria that require the implementation of transmission-based precautions. Your plan also should address the transportation of the patient through the facility if necessary for diagnostic tests or critical therapeutic treatments that cannot be accomplished in the isolation room. Define the criteria for discontinuing isolation and what arrangements would be required to discharge a patient safely if he or she may still be infectious. Consider whether the presence of patients with this condition will affect your visiting policies for the involved patients or for the entire facility. Some situations may require a plan for how you would enforce the precautions and visiting restrictions. Such a plan may require stringent security measures; if so, plans must include how that would be accomplished.

Required Medical Consultations

Consider if there is reason to require medical consultation with any medical specialists. If so, changes to the medical staff bylaws may be necessary to establish and enforce the requirement. The biologic emergency plan and the

medical staff bylaws should clearly outline the criteria for required medical consultation and any exceptions.

Equipment and Supplies

In order to respond rapidly and to provide uninterrupted care to all patients, plan for acquisition of additional medical supplies and equipment. Some pre-event estimates of what would be needed above your established PAR levels should be established. A plan for obtaining additional supplies should be developed. Memorandums of understanding with traditional and nontraditional suppliers would be appropriate, as there may be extenuating circumstances that would impair the ability of your usual sources to meet the increased need of an emergency event.

Special Services

Your plan should be written with the needs of special populations in mind. All aspects of the plan previously addressed should be considered independently for pediatrics, obstetrics and any other groups with special needs. Think about how an infected child or an infected labor patient would impact your operations and determine what alternatives are available in your facility or community. Evaluate all services you offer, and determine as part of the planning process which services would be essential and which services could be suspended to provide your facility with additional space, supplies and staff for the emergency response. (Reference: www.apic.org. Select “information resources.”)

Housekeeping, Environmental Decontamination, Laundry and Biohazard Waste

Assess whether current environmental cleaning and decontamination policies, laundry policies and biohazard-waste policies are adequate for each biological agent. If special policies are needed, the content of the policies should be described briefly in the plan. Any special disinfectants or special handling of

laundry and biohazard waste should be identified. Ensure that the necessary cleaning supplies, equipment and services are available.

Postmortem Care

Determine if there are special recommendations for handling the bodies of victims and ensure that those needs can be met. Plan for an increase in space and for additional resources to handle the anticipated death rate. Again, there may be an increased need for storage or transportation of bodies. A community plan for these services may be beneficial.

Employee Health Policies

Assess whether employee health policies need to be changed to provide for the safety of your staff and other patients. Consider including exposure history, disease history and vaccination history in their employee health records.

Develop your post-exposure plan to reflect how you identify the exposed staff, patients and public; what prophylactic treatment will be offered or required; and what your institution will provide for families of exposed employees. As you develop this plan, you will need to consider the possibilities of exposure through contact with an infected patient, as well as exposure through an aerosol release of the biological agent in your immediate geographic area. Determine alternative plans for those who may be contraindicated to the recommended treatment. Evaluate the timeline for completed prophylaxis or treatment and provide adequate resources to accomplish the task within the time limits of effective treatment. Your plan should provide for ongoing monitoring of exposed staff and clear definition of criteria for exclusion from duty.

Patient, Family and Community Education

Determine content and obtain the materials that will be needed for educating patients and their family members, as well as the general public, about the threatening agent and how your facility will respond to the presence of the agent.

Develop a plan for integrating your message with public health, law enforcement and other healthcare providers in your area to deliver a consistent message.

Resources

www.cdc.gov

Centers for Disease Control and Prevention.

www.health.state.nd.us

North Dakota Department of Health.

www.hopkins-biodefense.org

Center for Civilian Biodefense Strategies: Consensus statements as published in the Journal of The American Medical Association on anthrax, botulism, plague, smallpox, tularemia, and viral hemorrhagic fever.

www.cdc.gov/niosh/docs/2003-136/2003-136b.html

Guidance for Protecting Building Environments for Airborne chemical Biological, or Radiological Attacks

www.apic.org

Bioterrorism Readiness Plan: A Template for Healthcare Facilities

Mass Casualty Disaster Plan Checklist: A Template for Healthcare Facilities

www.slu.edu/colleges/sph/csbei/bioterrorism/index.html

Center for the Study of Bioterrorism, St. Louis University School of Public Health

www.dhs.cahwnet.gov/BioTerrorism%20Headline/Revised%20BT%20Response%20master%20document.pdf

California Hospital Bioterrorism Response Planning Guide

www.lepcinfoexchange.com/docs/ahahospitalmc2000.pdf

Hospital Preparedness for Mass Casualties

www.counterterrorism.org/pdf/acc_blue_book.pdf

A Mass Casualty Care Strategy for Biological Terrorism Incidents

Contact Person:

Brenda Vossler, RN CIC,

Emergency Preparedness and Response

North Dakota Department of Health

701.328.2748

bvossler@state.nd.us