

<b>Title: BIOTERRORISM AND CHEMICAL RESPONSE PLAN</b>	<b>EMP Appendix H</b>
<b>Manual: Emergency Management Plan</b>	<b>Effective Date: 1-25-15</b>
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<b>Administrative Team: CNE Jodi Hein</b>	

**Purpose:**

The purpose of this Bioterrorism and Chemical Response Plan is to provide detailed information to medical center staff and physicians for the recognition, response, treatment, prevention and control measures in response to suspected chemical releases or bioterrorism-related outbreaks.

**Policy:**

St. Mary Medical Center has a coordinated bioterrorism response plan that may be activated after a bioterrorism-related outbreak is suspected or known. It is critical to establish control and a chain of command so that necessary decisions can be made quickly and information can be centralized and communicated. Should a bioterrorism event be suspected, a network of communication must be activated to involve hospital administration and key staff members (infection control, etc.), local and state health departments, local police and fire departments, the Federal Bureau of Investigation (FBI) field office and the Centers for Disease Control (CDC).

To minimize the number of casualties and potential exposures, early identification of an outbreak is essential. Hospitals and clinics may have the first opportunity to recognize and initiate a response to a bioterrorist-related outbreak. Bioterrorism may occur as covert events, in which persons are unknowingly exposed and an outbreak is suspected only upon recognition of unusual disease clusters or symptoms. Bioterrorism may also occur as announced events, in which persons are warned that an exposure has occurred. The Bioterrorism Response Plan includes details for the management of both types of scenarios: Suspicion of a bioterrorism-related outbreak potentially associated with a covert event and announced bioterrorism-related events or threats. The possibility of a bioterrorism-related event should be ruled out with the assistance of the FBI and local or state health officials.

**Procedure:**

**I. Bioterrorism Response Plan**

**A. Introduction**

Bioterrorism is the overt or covert release of disease pathogens by individuals, groups or governments to intentionally cause death or disease in humans, animals or plants to meet terrorist aims. Biological terrorism agents include both living

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microorganisms (bacteria, protozoa, fungi) and toxins (chemicals) produced by microorganisms, plants or animals. Early detection of illness caused by bioterrorism would save countless lives since the earlier an act of bioterrorism is detected, the earlier control measures can be taken to limit exposure, investigate and determine exposure location(s) and identify persons in need of preventive medication.

Bioterrorism diseases include, but are not limited to: Anthrax (*Bacillus anthracis*); Botulism (*Clostridium botulinum*); Brucellosis (*Brucellae* species); Plague (*Yersinia pestis*); Q Fever (*Coxiella burnetii*); Smallpox (*Variola*); Tularemia (*Francisella tularensis*); and, Viral Hemorrhagic Fevers.

## B. Recognizing a Bioterrorism-Related Event

1. A bioterrorism-related event may be suspected when increasing numbers of otherwise healthy persons with similar symptoms seek treatment in the hospital's emergency department, physician's offices, or clinic's over a period of several hours, days, or weeks. The early clinical symptoms of infection for most bioterrorism agents may be similar to common diseases seen by healthcare professionals every day. The principles of epidemiology should be used to assess whether the patient's symptoms are typical of an endemic disease (e.g., influenza) currently circulating in the community or an unusual event. The most common features of an outbreak caused by bioterrorism agents include:
  - a. Covert Event
    - A rapid increase (hours to days) in the number of previously healthy persons with similar symptoms seeking medical treatment;
    - A cluster of previously healthy persons with similar symptoms who live, or work in a common geographical area;
    - An unusual clinical presentation;
    - An increase in reports of dead animals;
    - Lower incident rates in those persons who are protected (e.g., confined to home; no exposure to large crowds);
    - An increase number of patients who expire within 72 hours after admission to the hospital;
    - Any person with a recent history (within the past 2-4 weeks) of travel to a foreign country who presents with symptoms of high fever, rigors,

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delirium, rash (not characteristic of measles or chick pox), extreme myalgias, prostration, shock, diffuse hemorrhagic lesions or petechiae; and/or extreme dehydration due to vomiting or diarrhea with or without blood loss.

b. **Announced Event**

The response to an announced bioterrorism threat would be coordinated by the FBI and local law enforcement agencies. If the FBI believes the threat to be credible and has obtained information about the time, place, mode and/or contents of the release, the information would be communicated to local health departments or DHS. Public health personnel will be responsible for defining the population at risk of exposure.

- Locating the persons at risk for exposure as soon as possible to assess for illness and provide appropriate preventive therapy;
- Monitoring the persons who have received preventive treatment for symptoms or signs of the disease;
- Implementing enhanced surveillance for the suspected disease at health care facilities, laboratories and emergency medical services.

**C. Notification & Reporting Requirements**

Any suspected case of bioterrorism must be treated as a public health emergency and reported to the infection control practitioner, administration, local health departments and local law enforcement immediately.

1. All healthcare providers must report to the local health department the following; brucellosis, tularemia, smallpox, or any unusual diseases (e.g., a rare disease or a newly apparent or emerging disease or syndrome of uncertain etiology for which healthcare provider has reason to believe that it could possibly be caused by a transmissible agent or by a microbial toxin) or varicella deaths.
2. Reporting should come from the facility Incident Commander or Medical Technical Specialist (Infectious Disease Director) or designee with the consensus of the Command Group. After receiving an announcement of a bioterrorism-related event affecting the medical center, the the Administrator

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on Call will be notified immediately. The decision to activate the Hospital Incident Command System (HICS) will be made by the Administrator on Call.

- a. If the disaster plan is to be activated, the Incident Commander (IC) will inform the switchboard who will overhead page the appropriate code, and activate the group page to notify the HICS response team.
- b. The IC will obtain the bins containing the HICS job action sheets and vests (located in the Disaster Resource Center) and assign roles based on need, pre-assigned duties or the most appropriate individual present.

3. How rapidly local and state health departments can respond to the crisis will depend on how rapidly they are notified of a possible outbreak. Information needed to be gathered can include the following:

- a. Emergency department diversions (via HAVBED or Reddinett data)
- b. Emergency department visits and diagnosis;
- c. Over-the-counter pharmacy sales;
- d. Hospital admissions, diagnoses, and deaths;
- e. Critical care unit admissions (CCU) and diagnoses; and
- f. Clinical syndrome reporting (syndromic surveillance)

4. Key telephone numbers are listed below:

LA County Medical Alert Office	(323) 887-5310
Long Beach Department of Health Services	(562) 570-4302
Long Beach Police Department	(562) 435-6711
Federal Bureau of Investigation (FBI)	(310) 477-6565
Centers for Disease Control (CDC)	(770) 488-7100 Bioterrorism
Long Beach City Emergency Ops Center	(562) 570-3361

**D. Decontamination of Patients & Environment for Bio or Chem exposure:**

The need for decontamination depends on the suspected exposure and in most cases will not be necessary. The goal of decontamination after a potential exposure to a bioterrorism agent is to reduce the extent of external contamination of the patient and contain the contamination to prevent further spread and be necessary to ensure the safety of patients and staff while providing care.

Depending on the agent, the likelihood for reaerosolization, or risk associated with cutaneous exposure, clothing of exposed persons may need to be removed.

1. Decontamination should be considered in instances of gross contamination with hazardous chemicals or radioactive material. Decisions regarding the

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need for decontamination should be made immediately. The IC or ED physician will determine if the incoming patients requiring decontamination will overwhelm the resources at SMMC and the Long Beach Fire Department will be called for assistance.

2. Three decontamination zones will be set up. The zones are continuous with the hot zone being the initial holding point such as tents or the decontamination trailer and the cold zone is the Emergency Department.
  - a. Hot Zone - For known contaminated patients or personnel requiring showering - will be behind the HEC Building at the decon showers
  - b. Warm Zone - that area in between the Hot zone and the Cold zone where decontamination takes place. All staff working in this area have to go through the decontamination showers at the conclusion of their duty there.
  - c. Cold Zone - For those patients or personnel who are clean or have been successfully showered and decontaminated.
  
3. If decontamination is required the following steps will be followed:
  - a. The IC or ED physician will activate a members of the Decontamination Team or designate an appropriate individual to wear protective equipment according to the suspected agent and begin to decontaminate the patients using the decontamination shower trailer which will be deployed in the CARE Dental lot adjacent to the Health Enhancement Center.
  - b. Prior to triage patients will be decontaminated as efficaciously as possible.
  - c. Patients and personnel will be instructed to remove contaminated clothing, and place it patient property bag which will be labeled with one of the small labels from the 2 label package, the large label will be affixed to the patient's wrist. (This will ensure correct identification of patient property and may help investigating agencies with forensics). Only personnel wearing appropriate personal protective equipment shall handle contaminated clothing and clothing will be placed in an impervious bag to prevent further environmental contamination. Concern will be given to storage of property bags.
  - d. The patients will be directed or escorted through the showers.
  - e. Patients and personnel will be instructed, or assisted if necessary, to shower immediately with soap and water.

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- i. Systematically decontaminate from head to toe; priority areas include orifices (eyes, ears, etc.) and open wounds if contaminated. Do not be overly aggressive when decontaminating.
- ii. Protect uncontaminated body areas such as eyes and face of patients with goggles or other PPE as needed.
- iii. Suggested decontamination agents include:
  - Body surface Wash with soap and water
  - Hair Wash with baby shampoo (DAWN)and water
  - Face Wash with moist 4 x 4 gauze pad
  - Open wounds Flush using syringe irrigation
  - Eyes Flush using NS or ophthalmic Irrigating solution
  - Ears Flush using syringe irrigation
  - Nose Swab using Q-Tip or gauze pad
  - Mouth Flush and rinse using sterile water

*A bleach solution should NOT be used to decontaminate patients.*
- iv. Wash, rinse and blot dry.
- f. Document each decontamination by noting time started and time completed on the HICS patient tracking record. Decontamination record will be attached to the patient's permanent ED medical record.
- g. As they emerge from the shower patients will be handed temporary clothing and directed to the triage areas - at the hospital end of the parking structure. After decontamination, provide patients or personnel with gowns, booties, towels and blankets as needed.
- h. Triage equipment and minor dressing supplies will be available on the triage cart.
- i. Patients will be evaluated and treated **ONLY** after decontamination. Move patients or personnel to a clean gurney or wheelchair placed outside the decontamination zone and transfer to the appropriate treatment area.
  - i. Immediate Medical Treatment - Patients triaged as "Immediate" will be taken to the ED where the ED physician will conduct a medical screening examination, stabilize and treat the patient.
  - ii. First Aid / Delayed Treatment - Patients triaged as "Delayed" will be taken for treatment after decontamination
- j. Decontamination of all pre-hospital staff and equipment must be done prior to leaving to avoid extended contamination.

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- k. Staff must shower in decontamination shower after removing personal protective equipment and personal clothing if they had contact with contaminated patients.
  - l. Emergency Department role in decontamination:
    - i. Triage nurse performs and documents a visual primary assessment. Actual patient contact should be avoided until decontamination is complete unless life-threatening conditions exist.
    - ii. Triage nurse records vital signs on all caregivers that are required to be in the decontamination area prior to application of personal protective equipment and after staff remove personal protective equipment and leave the decontamination area. Vital signs are recorded on the log.
    - iii. Registration staff logs patients in.
    - iv. Additional staff will assist patients with removal of contaminated clothing being careful not to shake clothing and place clothing and belongings in plastic bags.
  - m. Security role in decontamination:
    - i. Secure access to the decontamination area by posting signage and placing barriers limiting access to the area.
    - ii. Using the log located on the decontamination cart, log in patient's name, social security number and agency/department (if applicable) for each person that enters the decontamination area.
4. After all patients and personnel have been decontaminated, the area should remain secure. Consult the Long Beach Fire Department Hazardous Materials Team for instructions and directions for clean up and disposal of items utilized for decontamination.

#### **E. Infection Control Practices for Patient Management**

All patients within the facility, including patients with suspected or confirmed bioterrorism-related illnesses, should be managed utilizing Standard Precautions. Standard Precautions are designed to reduce the risk of transmission from both recognized and unrecognized sources of infection in healthcare facilities and are recommended for all patients receiving care, regardless of their diagnosis or presumed infection status. Standard Precautions prevent direct contact with all body fluids, secretions, excretions, non-intact skin and mucous membranes. Appropriate personal protective equipment (PPE) must also be used to prevent skin or mucous membrane exposure to blood or other body substances of ANY patient, regardless of whether the patient has signs or symptoms of infection.

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1. Gloves - Clean, non-sterile gloves are worn when touching blood, body fluids, excretions, secretions, or items contaminated with such body fluids. Clean gloves are put on just before touching mucous membranes and non-intact skin. Gloves are changed between tasks and between procedures on the same patient if contact occurs with contaminated material. Hands are washed promptly after removing gloves and before leaving a patient care area.
2. Facial Protection - Disposable, fluid-resistant masks and eye shields (goggles with side-shields) or a face shield are worn when performing patient care tasks likely to generate splashing or spraying of blood and body fluids onto the mucous membranes of the face.
3. Gowns - Disposable, fluid-repelling gowns are worn to protect the skin and clothing when performing procedures likely to generate splashing or spraying of blood or body fluids. The material composition of the gown should be appropriate to the amount of fluid penetration likely to be encountered. Remove soiled gowns after patient contact.
4. Handwashing - Wash hands after contact with blood and other body fluids or with articles and surfaces contaminated or soiled with blood and body fluids regardless of whether gloves are worn. Hands should be washed immediately after gloves are removed, between patient contacts and as appropriate to avoid transfer of microorganisms to other patients and the environment.
5. Additional requirements for personal protective equipment can be found under the specific bioterrorism agent treatment guidelines (see Attachments).

#### **F. Evidence Collection**

In most bioterrorism-related events, the FBI may require collection of exposed clothing and other potential evidence. Hospital staff, including Security, will work in collaboration with local law enforcement and the FBI when evidence collection is requested.

1. When evidence collection is requested, Security staff will wear the appropriate personal protective equipment along with local law enforcement or FBI agents and together they will collect the items requested and carefully place in plastic bags.

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2. The plastic bags will be marked with patient name and ID number.
3. Security will complete a Valuables Sheet and record all items taken into evidence. The law enforcement officers or FBI agents receiving the items will sign and date the Valuables Sheet and indicate which agency is taking the property into custody. The original valuables sheet will be kept with the patient's medical record and a copy will be given to the patient.

#### **G. Laboratory Support**

The hospital clinical laboratory is not equipped to identify most pathogens that may be used by terrorists. The clinical laboratory staff will primarily be responsible for the collection, packaging and transportation of specimens to the county or state laboratories.

1. Laboratory personnel will take maximum precautions when handling specimens and will wear appropriate personal protective equipment when performing phlebotomy and handling all specimens during a bioterrorism-related event using proper hoods and venting.

#### **H. Pharmacy Support**

The inpatient pharmacy will maintain a reasonable, daily inventory of antibiotics currently recommended for the treatment of patients with suspected or diagnosed bacterial bioterrorism agents. These agents include, but are not limited to, gentamicin, ciprofloxacin and doxycycline. Emergency stockpiles of antibiotics will be made available within 12 hours after the federal government confirms that a bioterrorism-related event is in progress. It will be the Director of Pharmacy's responsibility in determining the need for and requesting emergency supplies of antibiotics from the government or CDC. CHEMPACK will be deployed per LA County CHEMPACK policy for nerve agent antidotes.

#### **I. Training and Education**

Drills and exercises will be conducted periodically to assess the level of staff preparation. The facility will participate in city, county and/or state bioterrorism-related drills as these events are scheduled. Decontamination training at St. Mary Medical Center is quarterly with an annual Decontamination drill.