Wake Forest Baptist Medical Center	**Bioterrorism – Disaster Preparedness Plan**	**Type:**	**Emergency Operations**
		Original Effective Date:	**2/01**
		Current (Revised) Date:	**1/19**
		Contact:	**Manager for Emergency Management and Business Continuity**
Approval Signature: Signature on file		**Date of Signature:**	
Name and Title: Karen Hart Huey, VP- Facilities			

1) General Policy Statement:

This document is designed to provide guidance in the event of an alleged threat or actual act of bioterrorism. Bioterrorism is the intentional release or dissemination of toxic biological agents. These agents are bacteria, viruses, or toxins, and may be in a naturally occurring or a human-modified form. Wake Forest Baptist Medical Center (WFBMC) and all affiliate locations listed below have responsibility to notify knowledgeable and competent staff in the area of bioterrorism and contain and/or limit the exposure, and to promptly care for the exposed and/or contaminated individuals.

WFBMC employees shall refer to these guidelines in the event there is a suspected threat or physical use of a biological agent. This plan will be updated as additional information is available or every three years whichever occurs first.

The bioterrorism plan is a part of WFBMC's overarching Emergency Operations Plan (EOP) therefore implementation of this plan can be made by the Chief Executive Officer, Administrator on Call, the Manager for Emergency Management and Response, Chief Nursing Officer, or their designee(s) and the respective Emergency Department Attending physician and as such has the authority to partially or fully activate any part of or all of the bioterrorism plan. No part of this plan shall limit the actions the WFBMC Authority Having Jurisdiction (AHJ), or his/her designee, can take to protect life, stabilize the incident, nor limit their ability to protect property and Medical Center infrastructure.

a) **Scope**: All WFBMC employees, faculty and staff are responsible for complying with this policy
b) **Responsible Department/Party/Parties**:
   i. Policy Owner: Emergency Management
   ii. Procedure: Emergency Management
   iii. Supervision: Emergency Management and Hospital Administration
   iv. Implementation: Emergency Management, Hospital Administration, and staff

2) Definitions: For purposes of this Policy, the following terms and definitions apply:

a) ***WFBMC:*** Wake Forest Baptist Medical Center and all affiliated organizations including Wake Forest University Health Sciences (WFUHS), North Carolina Baptist Hospital (NCBH), all on-site subsidiaries as well as those off-site governed by WFBMC policies and procedures.

b) ***Policy:*** As defined in the Policy on Creating and Amending Policy, a statement of principle that is developed for the purpose of guiding decisions and activities related to governance,

administration, or management of care, treatment, services or other activities of WFBMC. A policy may help to ensure compliance with applicable laws and regulations, promote one or more of the missions of WFBMC, contain guidelines for governance, and set parameters within which faculty, staff, students, visitors and others are expected to operate.

3) Policy Guidelines:

Response to a Threat or Act of Bioterrorism

A. **<u>Report</u>**

1. Anyone witnessing a suspected or actual bioterrorism incident on any WFBMC property (regardless of location) should, as quickly as reasonably possible, notify Medical Center Security via Emergency Communications Center at 6-9111 or outside of the Winston Salem campus call for the appropriate local law enforcement at 911.

2. The person reporting the event should provide his/her name and as much detail as possible regarding the location and immediate circumstances of the event:

    a. The specific location (building, floor, department name, room number).
    b. Call back number.
    c. Number of people at the threat location.
    d. Number and type of injuries (if applicable).
    e. Description of suspect(s)
        1) Exact location and number of suspect(s)
        2) Race
        3) Gender
        4) Clothing description
        5) Physical description
        6) Description of container/package
        7) Is suspect carrying anything else? (Duffle bag, backpack, etc.)
        8) Assailant's identity if known
        9) Specific demands or threats (if stated)

3. Other services to inform include:

    a. Contact WFBMC Emergency Management and Response by calling the Emergency Communications Center at 716-3305

    b. Communications Marketing and Media will be responsible for coordinating H response with news agency requests and providing internal information as appropriate.

    c. Command Center activation will follow notification of WFBMC Emergency Management. Situational awareness to other appropriate department will be managed as the incident management team assembles and creates an Incident Action Plan.

    d. WFBMC Administrator on Call (AOC)

- Upon receiving notification, AOC will immediately verify the notification of law enforcement.

B. **Suspicious Package**

Any employee(s) who opens a package and afterwards suspects the package to be suspicious in nature shall immediately remove themselves to a safe location away from the item yet remain in that location if it can be done safely; if patients are present and were potentially exposed patients shall be sequestered in the area as well. If continued harm would result by remaining in the room of origin remove yourself and/or the patient to the closest adjacent room and call for assistance. If a package (e.g. letter, box, etc.) is opened which contains a written threat or suspicious object, it shall be secured by leaving the item(s) where opened. All persons shall vacate the area and all entrances to the room locked. Security shall post an officer at, a safe distance to, each entrance to the location. Item(s) shall not be moved to another area by hospital staff without the expressed directive by the appropriate law enforcement agency. Further handling of such items will typically be carried out by state or federal law enforcement or other appropriate authority on the scene.

Upon initial notification, and verification/confirmation of a potential biological threat, engineering shall shut down ventilation systems to prevent transmission of any infectious agents via the Heating, Ventilation and Air Conditioning (HVAC) system. The contaminated room will be closed, labeled, and remain unavailable for use until thoroughly decontaminated in accordance with Infection Prevention/Infectious Disease instructions.

C. Decontamination

See agent specific decontamination procedures listed for each biologic agent in Agent Specific Recommendations.

D. Cleaning, Disinfection, and Sterilization of Equipment and Environment

Principles of standard precautions should be generally applied for the management of the patient-care equipment and environmental control. Refer to Isolation Precautions Policy. This section of the plan should in no way supersede the Medical Centers plan for cleaning/High Level Disinfection (HLD)/sterilization processes.

1. Existing procedures for the routine care, cleaning and disinfection of environmental surfaces, beds, bedrails, bedside equipment and other frequently touched surfaces and equipment is appropriate.

2. Facility-approved germicidal cleaning agents should be used in patient care areas for cleaning spills of contaminated material and disinfecting non-critical equipment.

3. Used patient-care equipment soiled or potentially contaminated with blood, body fluids, secretions or excretions should be handled in a manner that prevents exposures to skin and mucous membranes, avoids contamination of clothing and minimizes the likelihood of transfer of microbes to other patients and environments.

4. Refer to Cleaning and High Level Disinfection of Patient Care Items to ensure that reusable

equipment is not used for the care of another patient until it has been appropriately cleaned and reprocessed and to ensure that single-use patient items are appropriately discarded.

5. Sterilization is required for all instruments or equipment that enter normally sterile tissues or through which blood flows. Refer to Verifying Sterilization.

6. Rooms and bedside equipment of patients with biological infections should be cleaned using the same procedures that are used for all patients as a component of standard precautions, unless the infecting microorganism and the amount of environmental contamination indicate special cleaning. In addition to adequate cleaning, thorough disinfection of bedside equipment and environmental surfaces may be indicated for certain organisms that can survive in the inanimate environment for extended periods of time.

7. Contaminated waste should be sorted and discarded in accordance with federal, state and local regulations.

Refer to Blood and Body Fluid Exposure Control Plan for the prevention of occupational injury and exposure to blood borne pathogens in accordance with standard precautions and universal precautions apply.

E. Post Exposure Management

1. Decontamination of Patients and Environment

   a. 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 contamination of the patient and to prevent further spread. Decontamination should only be considered in instances of gross contamination. Decisions regarding the need for decontamination should be made in consultation with Infection Prevention and Infectious Disease. Decontamination of exposed individuals prior to receiving them in the healthcare facility may be necessary to ensure the safety of patients and staff while providing care; this includes any emergency services personnel as well.

   b. Clothing of the exposed person will need to be removed; however, this presents the possibility for aerosolizing the agent and possibly exposing healthcare workers, therefore, appropriate personal protective equipment should be worn. Once removal of contaminated clothing has taken place, patients should be instructed (or assisted if necessary) to immediately shower with soap and water *ONLY*. Clean water, saline solution or commercial ophthalmic solutions are recommended for rinsing eyes. If indicated, after removal at the decontamination site, patient clothing should be handled only by personnel wearing appropriate personal protective equipment and placed in an impervious bag to prevent further environmental contamination.

   c. The state and federal law enforcement agencies may collect exposed clothing and other potential evidence for submission to FBI or Department of Defense laboratories to assist in exposure investigations.

H. Triage and Management of Large Scale Exposures and Suspected Exposures

1. Triage will take place at the site of recognition which will most commonly be the Emergency

Department. Patients requiring decontamination will be placed in the decontamination area to receive a thorough shower prior to entering the patient care area. Personal protective equipment must be worn if entering the area.

2. Psychological Aspects of Bioterrorism

   Following a bioterrorism-related event, fear and panic can be expected from both patients and healthcare providers. Psychological responses following a bioterrorism event may include horror, anger, and unrealistic concerns about infection, fear of contagion, paranoia, social isolation or demoralization. WFBMC Infection Prevention and Infectious Disease staff can provide assistance with communications regarding disease pathogen information. Refer to Critical Incident Staff Support.

J. Laboratory Support and Confirmation

WFBMC Clinical Microbiology Laboratory, Infection Prevention and Infectious Disease will work with local public health as well as state and federal Department of Health and Human Services to tailor diagnostic strategies to specific events.

The clinical microbiology laboratory plays a key role in the detection and identification of biological agents likely to be used in bioterrorist events. Once a BT or Class A agent is suspected, the BT response team must contact the microbiology laboratory and the clinical pathologist on call to coordinate the submission of specimens. The microbiology laboratory would perform a small number of simple rule-out tests on suspected isolates and, depending on test results; the lab will obtain approval to refer those organisms to the NC State Laboratory of Public Health (NCSLPH) for further testing and confirmation of identification.

1. Obtaining Diagnostic Samples - Diagnostic sampling will be individualized for each agent. Sampling should be performed in accordance with appropriate isolation precautions. current laboratory standard operating procedures for unknown agents (reference to clinical laboratory Microbiology SOP) and standard precautions. In cases of suspected bioterrorism, when possible to process and store safely in accordance with clinical laboratory standard operating procedures, an acute phase serum sample should be collected and analyzed if agent is known, aliquoted and saved for comparison to a later convalescent serum sample.

2. Transport Requirements - Specimen packaging and transport must be coordinated with local and state health departments and the Centers for Disease Control and Prevention. Compliance with WFBMC laboratory safe packaging and specimen transportation policies and procedures should be maintained. A chain of custody document should accompany the specimen from the moment of collection.

4) Review/Revision/Implementation

a) **Review Cycle**: This policy shall be reviewed by the Manager for Emergency Management and Response or designee at least every 3 years from the effective date.

b) **Office of Record**: After authorization, the Legal Department shall house this policy in a policy database and shall be the office of record for this policy.

5) Related Policies

Isolation Precautions Policy
Cleaning and High Level Disinfection of Patient Care Items
Verifying Sterilization

Blood and Body Fluid Exposure Control Plan

6) Governing Law or Regulations
None

7) Attachments
Attachment 1 - Clinical Characteristics of Critical Biological Agents
Attachment 2 – Biological Agents

8) Revision/Review Dates
2/01, 10/01, 10/02, 10/03, 10/04, 10/05, 10/06, 10/07, 10/08, 10/09, 5/10, 7/12, 1/19

Attachment 1 - Clinical Characteristics of Critical Biological Agents (Add reference)

Disease	Signs & Symptoms	Physical Exam	Clinical Tests*	Key Differential Diagnosis	Incubation Period
Inhalational Anthrax	Fever, malaise, cough, mild chest discomfort; possible short recovery phase then onset of dyspnea, diaphoresis, stridor, cyanosis, shock. Death 24-36 hours after onset of severe symptoms. Hemorrhagic meningitis in up to 50%	Nonspecific physical findings	Serology, gram stain, culture, polymerase chain reaction (PCR); CXR – widened mediastinum. Rarely pneumonia	Hantavirus pulmonary syndrome (HPS), dissecting aortic aneurysm (no fever)	1-6 days
Pneumonic plague	High fever, chills, headache, hemoptysis, and toxemia, rapid progression to dyspnea, stridor and cyanosis. Death from respiratory failure, shock and bleeding	Rales, hemoptysis, purpura	Gram stain, culture, serum immunoassay for capsular antigen, PCR, immunohisto-chemical stains (IHC)	HPS, TB, community acquired pneumonia (CAP), meningococcemia rickettsioses	2-3 days
Tularemia	Typhoidal – aerosol, gastrointestinal and intradermal challenge. Fever, headache, malaise, chest discomfort, anorexia, non-productive cough. Pneumonia in 30-80%. Oculoglandular from inoculation of conjunctiva with periorbital edema	No adenopathy with typhoidal illness	Serology, culture, PCR, IHC; CXR – pneumonia, mediastinal lymphadeno-pathy, or pleural effusion	Atypical CAP, Q fever, Brucellosis	1-10 days (average 3-5 days)
Smallpox	Fever, back pain, vomiting, malaise, headache, rigors. Papules 2-3 days later, progressing to pustular vesicles. Abundant on face and extremities initially	Papules, pustules or scabs of similar stage, many on face/extremities, palms/soles	Guarnieri bodies on Giemsa or modified silver stain, virions on electron microscopy, PCR, viral isolation, IHC	Varicella, vaccinia, monkeypox, cowpox, disseminated herpes zoster	7-17 days

* Test samples will be sent to the NC State lab of public health with prior approval of the Bioterrorism Unit at the NC Department of Health.

Attachment 2 - Biological Agents

Disease	Signs	Physical Exam	Clinical Tests*	Key Differential Diagnosis	Incubation Period
Botulism	Ptosis, blurred vision, diplopia, generalized weakness, dizziness, dysarthria, dysphonia, dysphagia, followed by symmetrical descending flaccid paralysis and respiratory failure	No fever, patient alert, postural hypotension, pupils unreactive, normal sensation, variable muscle weakness	Serology, toxin assays/anaerobic cultures of blood/stool; electromyography studies	Guillain Barre', myasthenis gravis, tick paralysis, Mg++ intoxication, organophosphate poisoning, polio	1-5 days
Filoviruses (Maburg, Ebola)	Fever, severe headache, malaise, myalgia, maculopapular rash day 5; progression to pharyngitis, hematemasis, melena, uncontrolled bleeding; shock/death days 6-9	Petechia, ecchymoses, conjunctivitis, uncontrolled bleeding	Serology, PCR, IHC, electrom microscopy (EM); elevated liver enzymes, thrombocytopenia	Meningococcemia, malaria, typhus, leptospirosis, borreliosis, thrombotic thrombocytopenic purpura (TTP), rickettsiosis, hemolytic uremic syndrome (HUS), arenaviruses	2-19 days
Arenaviruses (Lassa, Junin, Sabia, Machupo, Guanarito)	Fever, malaise, myalgia, headache, N/V, pharyngitis, cough, retrosternal pain, bleeding, tremors of tongue and hands (Junin), shock, aseptic meningitis, coma, hearing loss in some	Conjunctivitis, petechia, ecchymoses, flushing overhead and upper torso	Serology, viral isolation, PCR, IHC; leukopenia, thrombocytopenia, proteinuria	Leptospirosis, meningococcemia, malaris, typhus, borreliosis, rickettsiosis, TTP, HUS, filuviruses	Lassa 5-21 days Sabia, Junin, Machupo 7-16 days

* Test samples will be sent to the NC State lab of public health with prior approval of the Bioterrorism Unit at the NC Department of Health.