BIOTERRORISM SYNDROMES

If you suspect disease from a potential bioterrorism event, call the LACDHS Acute Communicable Disease Control Unit (ACDC) IMMEDIATELY:

Tel: (213) 240-7941 or after hours (213) 974-1234

ACDC will arrange for specialized lab testing; guidelines for treatment, prophylaxis, and infection control; and activate local, state, and federal emergency response systems.

Syndrome	Bioterrorism threat disease description	Differential diagnosis	Picture	Initial laboratory & other diagnostic test results	Immediate public health & infection control actions
Acute Respiratory Distress with Fever	Inhalational Anthrax Abrupt onset of fever, chest pain, respiratory distress without radiographic findings of pneumonia, no history of trauma or chronic disease, progression to shock and death within 24-36 hours.	Dissecting aortic aneurysm, pulmonary embolism, influenza		Chest x-ray with widened mediastinum; gram-positive bacilli in sputum or blood; definitive testing available at the LAC Public Health Laboratory, (213) 250-8619.	Call ACDC. Alert your laboratory to possibility of anthrax. No person-to-person transmission. Infection control: standard precautions.
	Pneumonic Plague Apparent severe community-acquired pneumonia but with hemoptysis, cyanosis, gastrointestinal symptoms, shock.	Community-acquired pneu- monia, Hantavirus pul- monary syndrome, meningococcemia, rickettsiosis, influenza		Gram-negative bacilli or coccobacilli in sputum, blood or lymph node; safetypin appearance with Wright or Giemsa stain; definitive testing available at the LAC Public Health Laboratory, (213) 250-8619.	Call hospital infection control and ACDC. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview/chemoprophylaxis; get detailed address and phone number information. Alert laboratory of possibility of plague. Infection control: droplet precautions in addition to standard precautions.
	Ricin (aerosolized) Acute onset of fever, chest pain and cough, progressing to respiratory distress and hypoxemia; not improved with antibiotics; death in 36-72 hours.	Plague, Q fever, staphylococcal enterotoxin B, phosgene, tularemia, influenza		Chest x-ray with pulmonary edema. Consult with ACDC regarding specimen collection and diagnostic testing procedures.	Call ACDC. Infection control: standard precautions.
	Staphylococcal Enterotoxin B Acute onset of fever, chills, headache, nonproductive cough and myalgia (influenza-like illness) with a NORMAL chest x- ray.	Influenza, adenovirus, mycoplasma		Primarily clinical diagnosis. Consult with ACDC regarding specimen collection and diagnostic testing procedures.	Call ACDC. Infection control: standard precautions.
Acute Rash with Fever	Smallpox Papular rash with fever that begins on the face and extremities and uniformly progresses to vesicles and pustules; headache, vomiting, back pain, and delirium common.	Varicella, disseminated herpes zoster, vaccinia, monkeypox, cowpox		Clinical with laboratory confirmation; vaccinated, gowned and gloved person obtains specimens (scabs or swabs of vesicular or pustular fluid). Call ACDC immediately before obtaining specimen; definitive testing available through CDC.	Call hospital infection control and ACDC immediately. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview and vaccination; get detailed address and phone number information. Infection control: airborne and contact precautions in addition to standard precautions.
	Viral Hemorrhagic Fever (e. g., Ebola) Fever with mucous membrane bleeding, petechiae, thrombocytopenia and hypotension in a patient without underlying malignancy.	Meningococcemia, malaria, typhus, leptospirosis, borreliosis, thrombotic thrombocy- topenic purpura (TTP), hemolytic uremic syndrome (HUS)		Definitive testing available through public health laboratory networkcall ACDC immediately.	Call hospital infection control and ACDC immediately. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview and follow-up; get detailed address and phone number information. Infection control: contact precautions in addition to standard precautions.
Neurologic Syndromes	Botulism Acute bilateral descending flaccid paralysis beginning with cranial nerve palsies.	Guillain-Barré syndrome, myasthenia gravis, mid- brain stroke, tick paralysis, Mg ⁺⁺ intoxication, organophosphate, carbon monoxide, paralytic shell- fish, or belladonna-like alkaloid poisoning, polio, Eaton-Lambert myasthenic syndrome		CSF protein normal; EMG with repetitive nerve stimulation shows augmentation of muscle action potential; toxin assays of serum, feces, or gastric aspirate available at the LAC Public Health Laboratory. Call ACDC to request testing.	Request botulinum antitoxin from ACDC. Infection control: standard precautions.
	Encephalitis (Venezuelan, Eastern, Western) Encephalopathy with fever and seizures and/or focal neurologic deficits.	Herpes simplex, post-infectious, other viral encephalitides		Serologic testing available at the LAC Public Health Laboratory, (213) 250-8619.	Call ACDC. Infection control: standard precautions.
Influenza-Like Illness	Brucellosis Irregular fever, chills, malaise, headache, weight loss, profound weakness and fatigue. Arthralgias, sacroiliitis, paravertebral abscesses. Anorexia, nausea, vomiting, diar- rhea, hepatosplenomegaly. May have cough and pleuritic chest pain.	Numerous diseases,	TOTAL THE	Tiny, slow-growing, faintly-staining, gram-negative coccobacilli in blood or bone marrow culture. Leukocyte count normal or low. Anemia, thrombocytopenia possible. CXR nonspecific: normal, bronchopneumonia, abscesses, single or miliary nodules, enlarged hilar nodes, effusions. Serologic testing and culture available at the LAC Public Health Laboratory, (213) 250-8619.	Notify your laboratory if brucellosis suspectedmicrobiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call ACDC. Infection control: standard precautions.
	Tularemia (Typhoidal, Pneumonic) Fever, chills, rigors, headache, myalgias, coryza, sore throat initially; followed by weakness, anorexia, weight loss. Substernal discomfort, dry cough if pneumonic disease.	including Q Fever, brucellosis		Small, faintly-staining, slow-growing, gram-negative coccobacilli in smears or cultures of sputum, blood. CXR may show infiltrate, hilar adenopathy, effusion. Definitive testing available at the LAC Public Health Laboratory, (213) 250-8619.	Notify your laboratory if tularemia suspectedmicrobiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call ACDC. Infection control: standard precautions.

Adapted from California State and Local Health Department Bioterrorism Surveillance and Epidemiology Working Group, 2001.



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