



If an unusual illness is seen which leads you to suspect bioterrorism, **IMMEDIATELY** call your county health department to arrange for specialized lab testing, guidelines for treatment, and infection control guidance.

You may also call the Arizona Department of Health Services at 602-364-3289 or the Centers for Disease Control and Prevention's 24-hour bioterrorism response office at 770-488-7100

Syndrome	Biological Threat Disease Description	Differential Diagnosis	Initial Laboratory and Other Diagnostic Test Results	Immediate Public Health and 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.	Bacterial mediastinitis, coccidioidomycosis, influenza, Legionnaires' disease, tularemia, Q fever, psittacosis, histoplasmosis, ruptured aneurysm, superior vena cava syndrome (SVC syndrome), SARS.	Chest x-ray with widened mediastinum; gram-positive bacilli in sputum or blood; definitive testing available through public health laboratory network	Call Local Health Department. Alert laboratory to possibility of anthrax. Standard precautions. Contact precautions for skin lesions.
	Pneumonic Plague Severe community-acquired pneumonia but with hemoptysis, cyanosis, gastrointestinal symptoms, shock.	Severe bacterial or viral pneumonia, inhalational anthrax, pulmonary infarct, pulmonary hemorrhage, hantavirus pulmonary syndrome, meningococemia, rickettsiosis, influenza, mycoplasma pneumonia, SARS.	Gram-negative bacilli or coccobacilli in sputum, blood, or lymph node; safety-pin appearance with Wright or Giemsa stain; definitive testing available through public health laboratory network.	Standard and droplet precautions with a regular surgical mask. Call hospital infection control and Local Health Department. Family members/close contacts of patients may need chemoprophylaxis; get detailed address and phone number information. Alert laboratory of possibility of plague.
	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, tularemia, Q fever, Staphylococcal enterotoxin B, phosgene.	Chest x-ray with pulmonary edema. Consult with Local Health Department regarding specimen collection and diagnostic testing procedures.	Call Local Health Department. 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.	Primarily clinical diagnosis. Consult with Local Health Department regarding specimen collection and diagnostic testing procedures.	Call Local Health Department. Standard precautions.
Acute Rash with Fever	Smallpox Fever followed by papular rash that begins on the face and extremities and uniformly progresses to vesicles and pustules; headache, vomiting, back pain, and delirium common. Severely ill.	Atypical varicella, drug eruption, disseminated herpes zoster, Stevens-Johnson syndrome, atypical measles, secondary syphilis, erythema multiforme, meningococemia, monkeypox, cowpox.	Clinical with laboratory confirmation; vaccinated, gowned and gloved person wearing N95 respirator obtains specimens (scabs or swabs of vesicular or pustular fluid). Call public health immediately and before obtaining specimen; definitive testing available through public health laboratory network.	Call hospital infection control and Local Health Department immediately. Standard, contact, and airborne precautions required. Family members/close contacts of patients may need prophylaxis; get detailed address and phone number information.
	Viral Hemorrhagic Fever (e. g., Ebola) Fever with mucous membrane bleeding, petechiae, thrombocytopenia, and hypotension in a patient without underlying malignancy.	Bacteremia (especially meningococemia), malaria, typhus, leptospirosis, borreliosis, thrombotic thrombocytopenic purpura (TTP), hemolytic uremic syndrome (HUS).	Definitive testing available through public health laboratory network--call public health immediately.	Call hospital infection control and Local Health Department immediately. Standard, airborne, and scrupulous contact precautions. Family members/close contacts of patients may need follow-up; get detailed address and phone number information.
Neurologic Syndromes	Botulism Acute afebrile, symmetric descending flaccid paralysis beginning with cranial nerve palsies. Normal mental status.	Guillain-Barré syndrome, myasthenia gravis, midbrain stroke, polio, tick paralysis, chemical intoxication, organophosphate, carbon monoxide, paralytic shellfish, belladonna-like alkaloid poisoning, Eaton-Lambert myasthenia syndrome.	CSF protein normal; EMG with repetitive nerve stimulation shows augmentation of muscle action potential; toxin assays of serum, feces, or gastric aspirate available through public health laboratory network.	Request botulinum antitoxin from local/state health department; call Local Health Department. Standard precautions.
	Encephalitis (Venezuelan, Eastern, Western) Encephalopathy with fever and seizures and/or focal neurologic deficits.	Herpes simplex, Epstein Barr virus, mycoplasma, West Nile virus, post-infectious encephalitis, rabies, syphilis, TB, other arboviruses.	Serologic testing available through public health laboratory network.	Call Local Health Department. Droplet precautions pending evaluation.
Influenza-like Illness	Brucellosis Irregular fever, chills, malaise, headache, weight loss, profound weakness and fatigue. Arthralgias, sacroiliitis, paravertebral abscesses. Anorexia, nausea, vomiting, diarrhea, hepatosplenomegaly. May have cough and pleuritic chest pain.	Inhalational anthrax, influenza, mycoplasma pneumonia, Legionnaire's disease, Q fever, plague, psittacosis, hantavirus pulmonary syndrome, tularemia, SARS	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, broncho-pneumonia, abscesses, single or miliary nodules, enlarged hilar nodes, effusions. Serologic testing and culture available through public health laboratory network.	Notify laboratory if brucellosis suspected – microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call Local Health Department. 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.	Inhalational anthrax, influenza, mycoplasma pneumonia, Legionnaire's disease, Q fever, plague, psittacosis, hantavirus pulmonary syndrome, brucellosis, SARS	Small, faintly-staining, slow-growing, gram-negative coccobacillus in smears or cultures of sputum, blood. CXR may show infiltrate, hilar adenopathy, effusion. Definitive testing available through public health laboratory network.	Notify laboratory if tularemia suspected – microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call Local Health Department. Standard precautions.

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