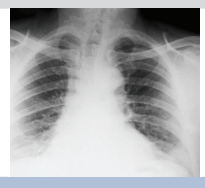
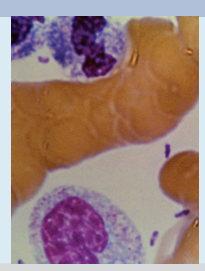
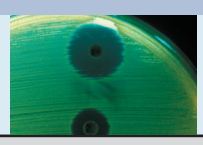
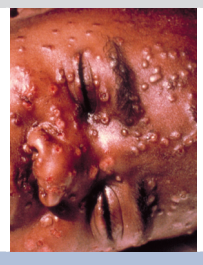
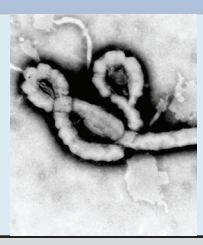
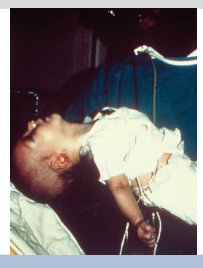
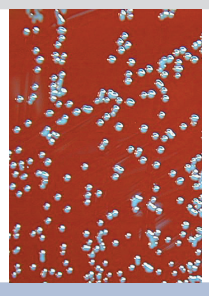
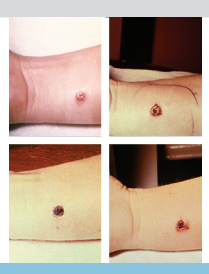
Bioterrorism Syndromes

If you suspect disease that may be bioterrorism related, IMMEDIATELY call SFDPH Communicable Disease Control Unit.

24/7 TELEPHONE: (415) 554-2830 (After-hours: follow prompts to page on-call MD)

For SF patients and clinical institutions San Francisco Department of Public Health (SFDPH) can facilitate reference lab testing and prophylaxis; can provide treatment and infection control guidelines; and can activate emergency responses.

Syndrome	Bioterrorism Threat Disease Description	Differential Diagnosis	Picture	Initial Lab & 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, 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. Reference testing available through SFDPH. Call SFDPH immediately.	Call SFDPH immediately. 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 pneumonia, Hantavirus pulmonary syndrome, meningococcemia, rickettsiosis, influenza.		Gram-negative bacilli or coccobacilli in sputum, blood or lymph node; safety pin appearance with Wright or Giemsa stain. Reference testing through SFDPH. Call SFDPH immediately.	Call hospital infection control and SFDPH immediately. Ask family members/close contacts of patient to stay at hospital for public health interview/ prophylaxis; get detailed address and phone info. 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 poisoning, tularemia, influenza.		Chest x-ray with pulmonary edema. Reference testing through SFDPH. Call SFDPH immediately.	Call SFDPH immediately. 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, ricin.		Primarily clinical diagnosis. Reference testing through SFDPH. Call SFDPH immediately.	Call SFDPH immediately. 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 diagnosis with laboratory confirmation. Call SFDPH immediately. After calling SFDPH, vaccinated, gowned and gloved person obtains specimens (scabs or swabs of vesicular or pustular fluid). Reference testing available through SFDPH.	Call hospital infection control and SFDPH immediately. Ask family members/close contacts of patient to stay at hospital for public health interview and vaccination; get detailed address and phone info. Infection control: **airborne** and **contact** precautions in addition to standard precautions.
	Viral Hemorrhagic Fever (e.g., Ebola, Marburg)				
	Fever with mucous membrane bleeding, petechiae, thrombocytopenia and hypotension in a patient without underlying malignancy.	Meningococcemia, malaria, typhus, leptospirosis, borreliosis, thrombotic thrombocytopenic purpura (TTP), hemolytic uremic syndrome (HUS).		Reference testing available through SFDPH. Call SFDPH immediately.	Call hospital infection control and SFDPH immediately. Ask family members/close contacts of patient to stay at hospital for public health interview and follow-up; get detailed address and phone info. 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, Eaton-Lambert myasthenic syndrome, midbrain stroke, tick paralysis, Mg++ intoxication, organophosphate, carbon monoxide, paralytic shellfish, or belladonna-like alkaloid poisoning, polio.		CSF protein normal; EMG with repetitive nerve stimulation shows augmentation of muscle action potential. Toxin assays available through SFDPH. Call SFDPH immediately.	Request botulinum antitoxin from SFDPH immediately. 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.		Reference testing available through SFDPH. Call SFDPH immediately.	Call SFDPH immediately. Infection control: standard precautions.
INFLUENZA-LIKE ILLNESS	**Brucellosis**				
	Irregular fever, chills, malaise, headache, weight loss, profound weakness and fatigue, anorexia, nausea, vomiting, diarrhea, lymphadenopathy, hepatosplenomegaly, arthralgias and arthritis especially in large joints: sacroiliitis, paravertebral abscesses. May have cough and pleuritic chest pain.	Numerous diseases, including Q Fever, tularemia.		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. Reference testing available through SFDPH. Call SFDPH immediately.	Notify your laboratory if brucellosis suspected--microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call SFDPH immediately. Infection control: standard precautions.
	Tularemia				
	Fever, chills, rigors, headache, myalgias, coryza, sore throat initially; followed by weakness, anorexia, weight loss, lymphadenopathy. Substernal discomfort, dry cough if pneumonic disease.	Numerous diseases, 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. Reference testing available through SFDPH. Call SFDPH immediately.	Notify your laboratory if tularemia suspected-- microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call SFDPH immediately. Infection control: standard precautions.
CUTANEOUS ULCER	**Cutaneous Anthrax**				
	Papule that progresses to vesicle or bulla in 1-2 days, sometimes hemorrhagic or with satellite lesions; vesicle ulcerates and central black eschar forms in 3-7 days; painless; surrounding erythema; edema; may have regional lymphadenopathy, fever, headache or malaise.	Spider bite, furunculosis, ecthyma, ecthyma gangrenosum, orf.		Gram stain and culture of skin lesion (unroofed vesicle fluid, base of ulcer, edges of/ underneath eschar); blood cultures; punch biopsy if patient on antimicrobials or if gram stain and culture are negative and clinical suspicion is high.	Call SFDPH immediately. Alert your laboratory to possibility of anthax. Infection control: standard precautions.

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

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Also call SFDPH for routine disease reporting

Phone: (415) 554-2830 Fax line: (415) 554-2848 E-mail: cdcontrol@sfdph.org

www.sfdph.org/cdcp