This information is current as of the date faxed and for the patient specified ONLY. Do not use this information for other patients without contacting the Poison Center at 1-800-222-1222.

INHALATIONAL ANTHRAX: Health Care Information

Anthrax is an acute infectious disease caused by the bacteria *Bacillus anthracis*. Exposure may occur by exposure to aerosolized spores or spores in a powder. Anthrax may infect the skin (cutaneous anthrax) or lungs (inhalational anthrax) or gastrointestinal tract (gastrointestinal anthrax) depending on the nature of the exposure.

Signs and Symptoms: Immediately after an airborne release or exposure to a powder, patients will have no symptoms, but may require antibiotic prophylaxis and decontamination (see below).

Clinical anthrax may occur in four syndromes:

1. **Pulmonary:** The incubation period is typically 4 to 5 days, but may range from 1 to 60 days. **Fever, malaise, fatigue, cough, vomiting and mild chest discomfort** are followed by severe **respiratory distress with dyspnea, diaphoresis, stridor and cyanosis**. **Shock and death** occur within 24 to 36 hours after onset of severe symptoms. Elevation of liver enzymes may also occur. Chest x-ray may show mediastinal widening, pleural effusion or infiltrates.
2. **Cutaneous: A**fter an incubation period of up to 12 days, a **painless, pruritic papule enlarges and develops into a painless ulcer with black eschar**. There may be associated fever and lymphadenopathy.
3. **Oropharyngeal: A**fter an incubation period of 1 to 7 days, **fever, cervical lymphadenopathy, pharyngitis and pharyngeal/lingual ulceration/eschar** formation occur.
4. **Gastrointestinal:** After an incubation period of 1 to7 days, symptoms include **nausea, vomiting, abdominal pain, fever, bloody diarrhea and possibly ascites**.

Diagnosis: Physical findings are non-specific. In symptomatic patients, obtain gram stain and routine culture of the blood. *Bacillus anthracis* is detectable by culture in other fluid, if necessary: skin vesicle fluid, ascitic fluid and CSF. Local hospital laboratory personnel should be notified of a potential anthrax sample. Contact your local public health agency (see attached sheet). Asymptomatic patients who were exposed to the bacteria may have sputum samples examined, but require no additional testing.

Decontamination: Patients who were recently exposed to airborne anthrax require removal of their clothing and washing of all exposed skin with soap and water. Patients who are symptomatic (i.e., exposed several days ago) do not require decontamination.

Treatment: CHECK WITH YOUR LOCAL PUBLIC HEALTH AGENCY AND THE CDC FOR UPDATES.

Hospitalized, ill patients: Two-drug therapy, if available (two of the following):

Ciprofloxacin: 10 mg/kg up to 400 mg q12 hours IV
Doxycycline: 2.2 mg/kg up to 100 mg q12 hours
Also rifampin, vancomycin, clindamycin, chloramphenicol or imipenem.

Non-hospitalized patients AND follow-up therapy for hospitalized patients:

Oral therapy: After IV therapy or for treatment of cutaneous anthrax:

Ciprofloxacin: 15 mg/kg up to 500 mg PO q 12 hours **OR**
Doxycycline: 2.2 mg/kg up to 100 mg q12 hours
(Therapy should be continued for 60 days, unless instructed otherwise by the CDC or public health.

Prophylaxis:

Antibiotics: Prophylaxis indicated for exposed individuals; treatment is for 60 days.

Ciprofloxacin: 10 to 15 mg/kg (up to 500 mg) PO BID (for adults, children, and pregnant women)

Alternatives:

Amoxicillin 40 mg/kg (up to 500 mg) PO TID

Doxycycline 100 mg PO BID (avoid in children and pregnant women)

Isolation and Personal Protection: Pulmonary anthrax is not spread person to person. Contact with cutaneous anthrax may lead to cutaneous anthrax in health care workers. Health care workers should use standard (body fluid) precautions only. No isolation or negative pressure is required. Patient transport does not need to be restricted; the patient does not require a mask during transport. After an invasive procedure or autopsy is performed, the instruments and area used should be thoroughly disinfected with a sporicidal agent (e.g., 0.5% sodium hypochlorite).

Resource Links:

www.bt.cdc.gov/agent/anthrax

www.upmc-biosecurity.org/pages/agents/anthrax.html