

ANTHRAX PROPHYLAXIS (BIOTERRORISM)

I. DEFINITION:

- A. Anthrax is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*. Anthrax is a disease of warm-blooded animals that can infect humans when they are exposed to spores in the environment, when they consume meat from an infected animal, or when they come into contact with spores from a diseased animal, for example, while processing hides. Symptoms of disease vary depending on how the disease was contracted, but usually occur within seven days of exposure. Anthrax infection can occur in three forms: cutaneous (skin), inhalation, and gastrointestinal. Person-to-person spread of anthrax most likely does not occur.
- B. Although anthrax can be found anywhere in the world, it is most common in agricultural regions where it occurs in wild and domestic animals, including, cattle, sheep, goats, camels, antelopes and other herbivores. Areas of the world currently listed as high risk are South and Central America, Southern and Eastern Europe, Asia, Africa, the Caribbean, and the Middle East.
- C. *B. anthracis* is considered one of the most serious biowarfare or bioterrorism agents, and CDC has classified anthrax as a category A biological warfare agent.

II. CLINICAL FORMS:

A. Inhalational:

Inhalational anthrax is the most lethal form of anthrax and results from inspiration of spores of *Bacillus anthracis*. Inhalational anthrax begins with a brief prodrome resembling a viral respiratory illness and may include fever, malaise, and mild cough or chest pain, followed by development of hypoxia and dyspnea, with radiographic evidence of mediastinal widening, with death shortly thereafter. The incubation period of inhalational anthrax among humans typically ranges from 1-7 days but may occur up to 60 days. Host factors, infectious dose, and chemoprophylaxis may affect the length of the incubation period. Case-fatality estimates for inhalation anthrax are extremely high, even with all possible supportive care including appropriate antibiotics.

B. Cutaneous:

Cutaneous anthrax follows deposition of the organism onto the skin, occurring particularly on exposed areas of the hands, arms, or face. Risk is increased when broken skin is present prior to the exposure. An area of local edema becomes a pruritic macule or papule, which enlarges and ulcerates after 1-2 days. Small, 1-3 mm vesicles may surround the ulcer. A painless, depressed, black eschar usually with surrounding local edema subsequently develops. Clients may also have fever, malaise, headache, and regional lymphadenopathy. The incubation period for cutaneous disease is reported to be 5-7 days. More than 95% of all naturally occurring anthrax infections worldwide are cutaneous. The case fatality rate for cutaneous anthrax is 20% without, and <1% with, antibiotic treatment.

C. Gastrointestinal:

Gastrointestinal anthrax is characterized by severe abdominal pain followed by fever and signs of septicemia. This form of anthrax usually follows after eating raw or undercooked contaminated meat and has an incubation period of 1-7 days. An oropharyngeal and an abdominal form of the disease have been described. Involvement of the pharynx is usually characterized by lesions at the base of the tongue, dysphagia, fever, and regional lymphadenopathy. Lower bowel inflammation typically causes nausea, loss of appetite,

and fever followed by abdominal pain, hematemesis, and bloody diarrhea. The case fatality rate is estimated to be 25%-60%. The effect of early antibiotic treatment on the case-fatality rate is not established.

D. Oropharyngeal:

A form of gastrointestinal anthrax, that starts as a painless mucosal lesion in the oral cavity or oropharynx. Symptoms may include dysphagia with posterior oropharyngeal necrotic ulcers, cervical adenopathy, edema, pharyngitis, fever, and possibly septicemia.

E. Meningeal:

An acute illness, or post-mortem examination revealing fever, convulsions, coma, or meningeal signs. *B. anthracis* causes a hemorrhagic meningoencephalitis that involves both deep brain parenchymal hemorrhagic lesions as well as infection of the CSF. Signs of another form will likely be evident as this syndrome is usually secondary to the above syndromes. All forms of systemic anthrax can progress to meningoencephalitis and is almost always fatal.

III. EXPOSURE AND CASE DEFINITION OF ANTHRAX:

A. Potential exposure is defined as the inhalation of or the contamination of an open cut/wound in the skin with a powder, crystalline, or animal substance that may contain a biological agent.

B. Exposure is defined as the inhalation of or the contamination of an open cut/wound in the skin by *Bacillus anthracis*.

C. A confirmed case of anthrax is defined as a clinically compatible illness with one of the following:

1. Culture and identification of *B. anthracis* from clinical specimens by the Laboratory Response Network (LRN);
2. Demonstration of *B. anthracis* antigens in tissues by immunohistochemical staining using both *B. anthracis* cell wall and capsule monoclonal antibodies;
3. Evidence of a four-fold rise in antibodies to protective antigen between acute and convalescent sera or a fourfold change in antibodies to protective antigen in paired convalescent sera using CDC quantitative anti-PA IgG ELISA testing;
4. Documented anthrax environmental exposure AND evidence of *B. anthracis* DNA (for example, by LRN-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or CSF) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal).

D. A probable case is defined as a clinically compatible illness that does not meet the confirmed case definition, but with one of the following:

1. Epidemiological link to a documented anthrax environmental exposure;
2. Evidence of *B. anthracis* DNA (for example, by Laboratory Response Network [LRN]-validated polymerase chain reaction) in clinical specimens collected from a normally sterile site (such as blood or cerebrospinal fluid [CSF]) or lesion of other affected tissue (skin, pulmonary, reticuloendothelial, or gastrointestinal);

3. Positive result on testing of clinical serum specimens using the QuickELISA™ (enzyme-linked immunosorbent assay) Anthrax-PA (protective antigen) kit;
4. Detection of Lethal Factor (LF) in clinical serum specimens by LF mass spectrometry;
5. Positive result on testing of culture from clinical specimens with the RedLine Alert test.

E. A suspected case is defined as:

1. An illness suggestive of one of the known anthrax clinical forms; **and**
2. No definitive, presumptive, or suggestive laboratory evidence of *B. anthracis*, or epidemiologic evidence relating it to anthrax.

IV. MANAGEMENT:

A. Place client information in PHOCIS and open a limited service record (Consent for Service, ODH 303C, Progress note, ODH 303G and PHOCIS demographic print out).

B. Recommendations for persons with potential or known exposure to anthrax:

1. Asymptomatic client WITHOUT known exposure

- a. Reassure the client about the rarity of infection without known exposure.
- b. It is important for people to know that there is no screening test available for the detection of anthrax infection in an asymptomatic person.
- c. Nasopharyngeal swabs and blood serum tests should NOT be used for diagnosis or screening; they are generally used as an epidemiologic tool or to assist in confirming the diagnosis in a person with symptoms compatible with anthrax.

2. Asymptomatic client WITH known exposure

- a. Conduct an individual risk assessment and consult with the Acute Disease Service (ADS) Epidemiologist-on-Call at (405) 271-4060 to determine if post-exposure prophylaxis (PEP) is recommended. If the OSDH is responding to a large-scale event where a significant number of individuals may have been exposed to anthrax (i.e. bioterrorism incident), public health will implement an incident command system for the response and PEP guidance will be communicated through the appropriate chain of command. Currently, there are no screening tests available for the detection of anthrax infection in an asymptomatic person.

b.

In the setting of *B anthracis* infection caused by bioterrorism, the CDC has recommended the following measures for decontamination of patients:

- Remove contaminated clothing and store in labeled plastic bags
- Handling clothing minimally to avoid agitation

- Instructing patient to shower thoroughly with soap and water

3. **Post-exposure Prophylaxis (PEP) Recommendations:**

- a. Antibiotics should only be used in a situation in which there is evidence to suggest that a BT event may have occurred and that the client might have been exposed. **The routine prescribing of antibiotics without credible evidence of an exposure is strongly discouraged.**
- b. Post-exposure prophylaxis for inhalation anthrax involves BOTH antibiotics and vaccination.
 - a. Three oral antimicrobial agents (ciprofloxacin, doxycycline, and levofloxacin) have been approved by the US FDA and are recommended by CDC for anthrax PEP. The recommended duration of PEP antimicrobial therapy is 60 days.
 - i. Clinicians may choose to use oral amoxicillin as an alternative for PEP for certain patient groups (e.g., children, pregnant or nursing women) if the associated strain is sensitive to amoxicillin (MIC \leq 0.125 mcg/mL)
 - b. In the post-exposure setting, ACIP recommends that anthrax vaccine (Anthrax Vaccine Absorbed, or AVA) be administered in three subcutaneous doses (at 0, 2, and 4 weeks) in conjunction with a 60 day course of antimicrobial therapy.
 - c. ACIP recommends the use of AVA for both pregnant and lactating women, as well as the consideration of vaccine use among children exposed to *B. anthracis* spores.
- c. Raxibacumab, a monoclonal antibody against protective antigen, can be used as prophylaxis of inhalational anthrax when alternative preventive therapies are not available or are not appropriate. Raxibacumab is given as a single dose following premedication with diphenhydramine. A supply of raxibacumab, is held in the US SNS for use by the CDC in the event of an anthrax emergency.
- d. Anthrax is not spread from person to person, therefore, PEP is not recommended for family members or other personal contacts of exposed persons unless they were similarly exposed.
- e. Consult with Acute Disease Service (ADS) Epidemiologist-on-Call at (405) 271-4060 to determine if PEP is recommended. If the OSDH is responding to a large-scale event where a significant number of individuals may have been exposed to anthrax (i.e. bioterrorism incident), public health will implement an incident command system for the response and PEP guidance will be communicated through the appropriate chain of command.
- f. See table "Client Prophylaxis" to determine which antibiotic to issue.

Client Prophylaxis
Recommended initial antimicrobial agent and anthrax vaccine adsorbed (AVA) dosages
for Post-exposure prophylaxis (PEP) after exposure to aerosolized *Bacillus anthracis*
spores*

Population	Antimicrobials for 60-day [†] PEP		AVA dosage and route [§]
	Initial Oral Therapy [†]	Alternative Therapy ^{**}	
Adults (18-65 years)	<p><i>One of the following for 60 days:</i></p> <p>Ciprofloxacin, 500 mg orally twice daily</p> <p>Doxycycline, 100 mg orally twice daily</p>	Levofloxacin ^{††} , 500 mg PO once daily	3-dose subcutaneous (SC) series: first dose administered as soon as possible, second and third doses administered 2 and 4 weeks after the first dose
Children (<18 years) ^{§§}	<p><i>One of the following for 60 days:</i></p> <p>Ciprofloxacin^{§§}, 15 mg/kg per day every 12 hours, not to exceed 1 g/day</p> <p>Doxycycline^{§§,¶¶}</p> <p>>8 yr and >45kg: 100 mg orally every 12 hours</p> <p>>8yr and ≤45kg: 2.2 mg/kg orally every 12 hours</p> <p>≤8 yr: 2.2mg/kg orally every 12 hours</p>	<p>Levofloxacin^{††}, 16 mg/kg/day divided every 12 hours; each dose should not exceed 250mg</p> <p>Amoxicillin^{***}: 80 mg/kg/day divided every 8 hours, not to exceed 500 mg/dose</p>	Recommendations for use of AVA in children are made on an event-by-event basis
Pregnant Women ^α and breastfeeding mothers	<p><i>One of the following for 60 days:</i></p> <p>Ciprofloxacin, 500 mg orally twice daily</p>	<p>Doxycycline^α, 100 mg orally twice daily</p> <p>Amoxicillin^{**}, 500 mg orally every 8 hours</p>	3-dose subcutaneous (SC) series: first dose administered as soon as possible, second and third doses administered 2 and 4 weeks after the first dose

*Adapted from CDC. *Use of anthrax vaccine in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2010; 59(No. RR-6):1-30, Table 1.*

[†]Antimicrobials should continue for 14 days after administration of the third dose of vaccine.

[§]AVA used for PEP must be administered subcutaneously.

[†]Preferred drugs for oral PEP for infection with *Bacillus anthracis*.

^{**}Alternative therapy for patients who cannot take first-line treatment, if first-line treatment is unavailable, or susceptibility patterns of isolate (if indicated).

^{††}Levofloxacin is a second-link antimicrobial agent for PEP for persons aged ≥6 months with medical issues (e.g., tolerance or resistance to ciprofloxacin) that indicate its use. Safety data on extended use of levofloxacin in any population for >28 days are limited; therefore, levofloxacin PEP should only be used when the benefit outweighs the risk.

^{§§}Use of tetracyclines and fluoroquinolones in children can have adverse effects. These effects must be weighed carefully against the risk for developing life-threatening disease. If exposure to *B. anthracis* is confirmed, children may be treated initially with ciprofloxacin or doxycycline as prophylaxis. However, amoxicillin is preferred for antimicrobial PEP in children when susceptibility testing indicates that the *B. anthracis* isolate is susceptible to penicillins.

^{¶¶}In 1991, The American Academy of Pediatrics (AAP) amended the recommendation to allow treatment of young children with tetracyclines for serious infections such as Rocky Mountain spotted fever for which doxycycline might be indicated. Doxycycline is preferred for its twice daily dosage and low incidence of gastrointestinal side effects.

^{***}If susceptibility testing demonstrates an amoxicillin MIC ≤0.125 µg/mL, oral amoxicillin should be used to complete therapy.

^αThe antimicrobial choice for initial prophylactic therapy among pregnant women is ciprofloxacin. Doxycycline should be used with caution in asymptomatic pregnant women and only when other appropriate antimicrobial drugs are contraindicated. Although tetracyclines are not recommended during pregnancy, their use might be indicated for life-threatening illness.

- f. During Mass Antibiotic Prophylaxis Clinics, when possible, all family members should receive the same medications. For example, if one family member is allergic to Ciprofloxacin, but all family members can take Doxycycline, then all family members would receive Doxycycline, the secondary drug of choice. It is important to note that this might not be possible with a family with multiple drug allergies and issues.
 - g. If antibiotics are in limited supply the State Health Officer or designee will determine the number of doses to be issued. The remainder of the doses to cover 60 days of treatment will be issued as soon as supplies allow.
4. Symptomatic clients with or without potential or known exposure are to be referred to their health care provider for diagnosis and treatment. Identification of symptomatic clients is to be immediately reported to the ADS Epidemiologist-on-Call at (405) 271-4060 for investigation.

C. Counseling and Education:

At time of issuance of oral antibiotics, it is important that clients be counseled that all medications may have undesirable side effects. It is critical that clients inform the public health nurse of any troublesome reactions and NOT discontinue the antibiotic prophylaxis without medical consult.

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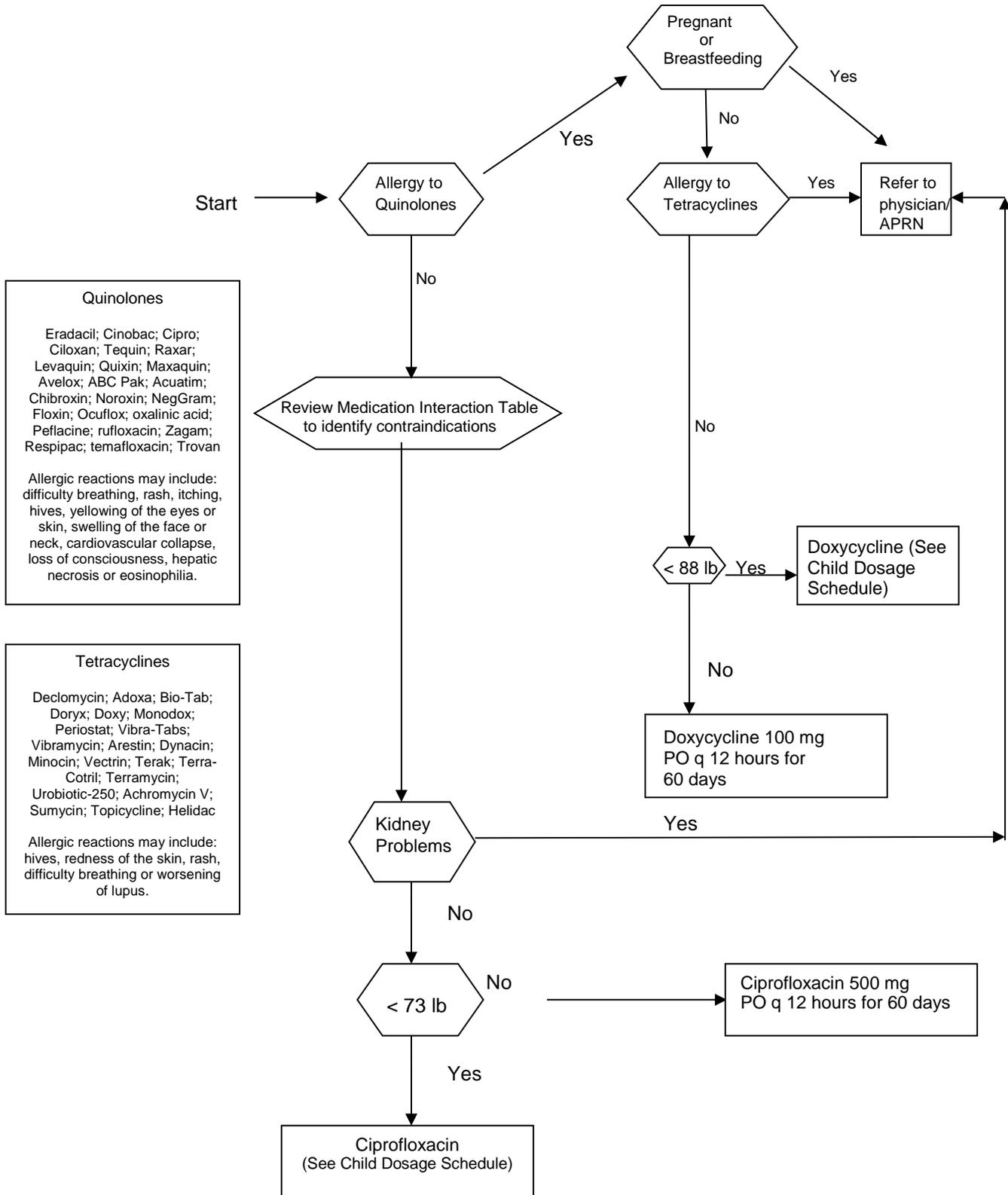
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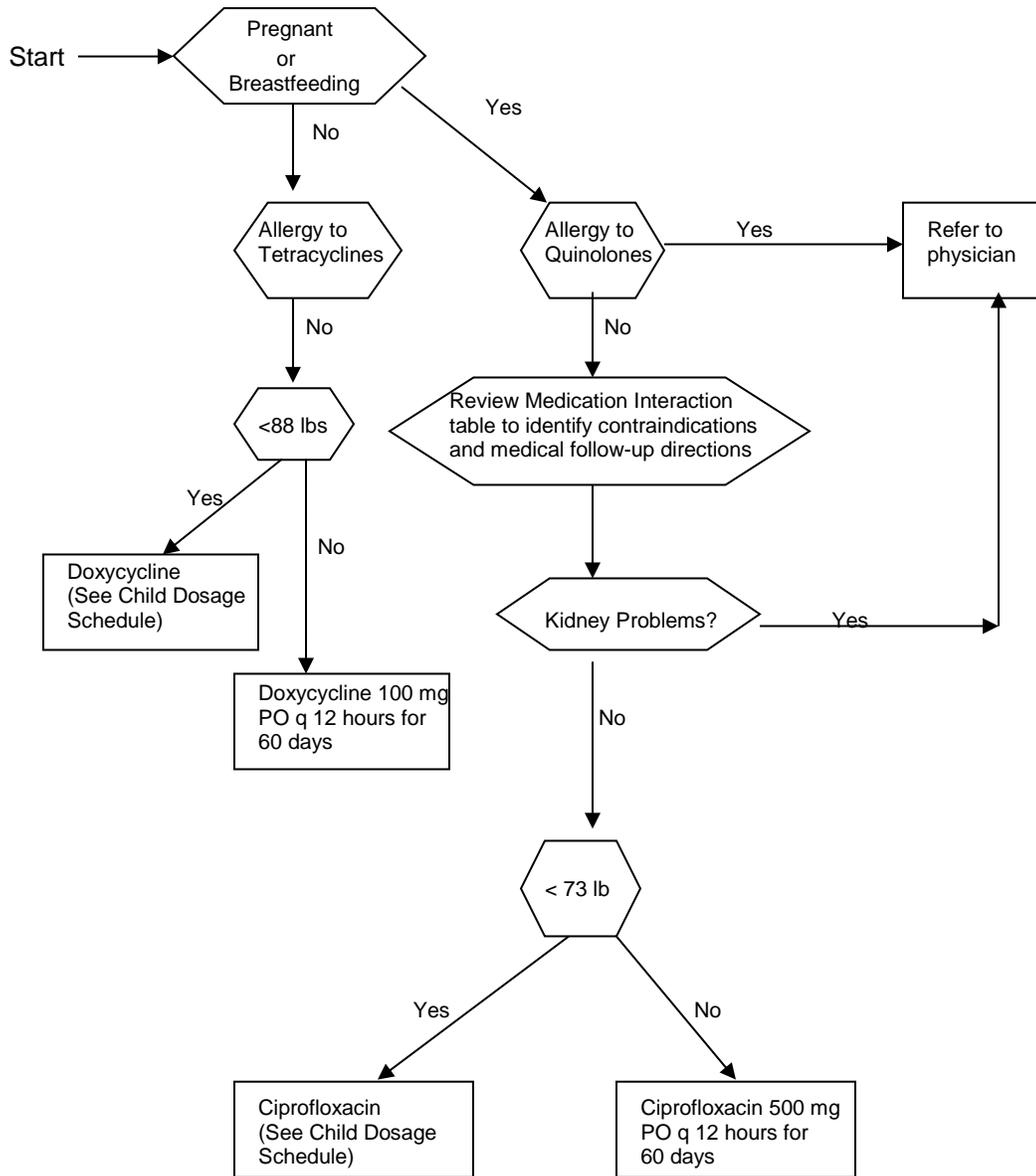
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Anthrax Post-Exposure Mass Antibiotic Prophylaxis Issuing Algorithm
Ciprofloxacin as primary drug



Anthrax Post-Exposure Mass Antibiotic Prophylaxis Issuing Algorithm
Doxycycline as primary drug



Quinolones

Eradacil; Cinobac; Cipro; Ciloxan; Tequin; Raxar; Levaquin; Quixin; Maxaquin; Avelox; ABC Pak; Acuatim; Chibroxin; Noroxin; NegGram; Floxin; Ocuflax; oxalinic acid; Peflaxine; rufloxacin; Zagam; Respipac; temafloxacin; Trovan

Allergic reactions may include: difficulty breathing, rash, itching, hives, yellowing of the eyes or skin, swelling of the face or neck, cardiovascular collapse, loss of consciousness, hepatic necrosis or eosinophilia.

Tetracyclines

Declomycin; Adoxa; Bio-Tab; Doryx; Doxy; Monodox; Periostat; Vibra-Tabs; Vibramycin; Arestin; Dynacin; Minocin; Vectrin; Terak; Terra-Cotril; Terramycin; Urobiotic-250; Achromycin V; Sumycin; Topicycline; Helidac

Allergic reactions may include: hives, redness of the skin, rash, difficulty breathing or worsening of lupus.

MEDICATION INTERACTION TABLE FOR CLIENT USE

HEALTH HISTORY OR CURRENT MEDICATION	INTERACTION	RECOMMENDATION
SEIZURE DISORDER	Ciprofloxacin (CIPRO) may increase number of seizures or duration of seizures	Use Doxycycline if available or check with your private provider
KIDNEY DISEASE	Ciprofloxacin (CIPRO) or Doxycycline (DOXY) - You may experience increased levels of this antibiotic in your system	It is recommended that you see your private provider for further evaluation to adjust the dosage by creatinine clearance levels
MYASTHENIA GRAVIS	Ciprofloxacin (CIPRO) may increase muscle weakness and cause serious adverse events in people with this condition.	It is recommended that you take Doxycycline if available but may talk with your private provider about taking the other.
COUMADIN – If you take this or other blood thinner	Ciprofloxacin (CIPRO) or Doxycycline (DOXY) may increase the effects of the medication by increasing bleeding time	See private provider in 3-5 days for further evaluation and PT/INR lab levels for recommendation of adjustment of dose
PROBENECID – If you take this medication	Ciprofloxacin (CIPRO) or Doxycycline (DOXY) may increase the effects of the medication	You may need to stop taking this medication while taking the antibiotic. It is recommended you see your private provider for further evaluation
THEOPHYLLINE – If you take this medication	Ciprofloxacin (CIPRO) – Increases the level of Theophylline in your system	It is recommended that you reduce the Theophylline dose by ½ and contact your private provider within 3-5 days for further evaluation
DILANTIN – If you take this medication	Ciprofloxacin (CIPRO) – May alter your Dilantin levels	It is recommended that you take Doxycycline if available. It is also recommended that you contact your private provider.
CYCLOSPORINE – If you take this medication	Ciprofloxacin (CIPRO) May increase blood creatinine levels	It is recommended that you contact your private provider to see if a blood creatinine and drug level is necessary.
ROPINIROLE – If you take this medication	Ciprofloxacin (CIPRO) may cause a Ropinirole toxicity (a toxic build up of the medication)	It is recommended you contact your private provider for further follow up of any dosage adjustments
ORAL CONTRACEPTIVES – If you take this medication	Ciprofloxacin (CIPRO) and Doxycycline (DOXY) may lessen the effectiveness of your birth control pills	It is recommended that you use additional methods of birth control while taking these antibiotics
ISOTRETINOIN – If you take this medication	Doxycycline (DOXY) – There is a slight increased risk of developing a condition that causes neurological symptoms	It is recommended that you report increased and persistent headaches, vomiting, or blurred vision to your private physician
GLYBURIDE – If you take this medication or if you are a diabetic	Ciprofloxacin (CIPRO) may decrease your blood sugar levels	It is recommended that you increase the monitoring of blood sugar levels and report this to your local provider if necessary

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This card explains how to prepare emergency dosages of
Ciprofloxacin
for infants and children exposed to anthrax

Once you have been notified by your federal, state, or local authorities that you have been exposed to anthrax, it may be necessary to prepare **emergency** doses of ciprofloxacin for infants and children using ciprofloxacin tablets.

You will need:

- One (1) 500 milligram (mg) ciprofloxacin tablet
- Metal teaspoon
- Measuring spoons [1 teaspoon (tsp); and ½ teaspoon (tsp)]
(NOTE measuring spoons are preferred, however if not available, use the metal spoon to grind, measure and give the medicine)
- 1 small bowl
- Water
- One of these foods or drinks
 - chocolate syrup
 - maple syrup
 - strawberry jam
 - apple juice

Directions:

1. Put one (1) 500-mg ciprofloxacin tablet into a small bowl. Add two (2) level teaspoons (tsp) of water. Stir the water and tablet for 1 minute. Crush the tablet with the back of the metal spoon until no large pieces are seen.



2. Add four (4) level teaspoons (tsp) of a food or drink to the ciprofloxacin and water mixture. Stir them together until the drug looks evenly mixed with the food or drink.



How Much of the Ciprofloxacin Mixture to Give a Child

The number of teaspoons of the ciprofloxacin mixture to give a child depends on the child's weight. **If child's weight is unknown, weigh child before giving the first dose.** The chart tells you how much to give a child for one dose. You should give child two doses each day (one in the morning and one in the evening).

<i>If the child weighs</i>	Give the child
4 - 6.5 pounds (lbs.)	One half (1/2) teaspoon (tsp) of the ciprofloxacin mixture
7 - 12.5 (lbs.)	One (1) teaspoon of the ciprofloxacin mixture
13 - 18.5 (lbs.)	One and one half (1 ½) teaspoons of the ciprofloxacin mixture
19 - 24.5 (lbs.)	Two (2) teaspoons of the ciprofloxacin mixture
25 - 30.5 (lbs.)	Two and one half (2 ½) teaspoons of the ciprofloxacin mixture
31 - 37 (lbs.)	Three (3) teaspoons of the ciprofloxacin mixture
37.5 - 43 (lbs.)	Three and one half (3 ½) teaspoons of the ciprofloxacin mixture
43 - 49 (lbs.)	Four (4) teaspoons of the ciprofloxacin mixture
49.5 - 55 (lbs.)	Four and one half (4 ½) teaspoons of the ciprofloxacin mixture
55.5 - 61.5 (lbs.)	Five (5) teaspoons of the ciprofloxacin mixture
62 - 67.5 (lbs.)	Five and one half (5 ½) teaspoons of the ciprofloxacin mixture
68 - 73.5 (lbs.)	Six (6) teaspoons of the ciprofloxacin mixture
Children heavier than 73.5 pounds who are exposed to anthrax should take one (1) 500-mg tablet of ciprofloxacin two times a day (at the same time each day if possible) for 60 days.	

How already prepared Ciprofloxacin mixture should be stored

- Ciprofloxacin mixed with any of the recommended foods and drinks will keep for at least 24 hours.
- Store the mixture in a covered container and refrigerate.
- Mixtures made with juice can be stored at room temperatures.

This card explains how to prepare emergency dosages of
Doxycycline
for infants and children exposed to anthrax

Once you have been notified by your federal, state, or local authorities that you have been exposed to anthrax, it may be necessary to prepare **emergency doses of doxycycline for infants and children using doxycycline tablets.**

You will need:

- One (1) 100 milligram (mg) doxycycline tablet
- Metal teaspoon
- Measuring spoons [1 teaspoon (tsp); and ½ teaspoon (tsp)] (NOTE measuring spoons are preferred, however if not available, use the metal spoon to grind, measure and give the medicine)
- 1 small bowl
- One of these foods or drinks
 - chocolate syrup
 - maple syrup
 - strawberry jam
 - apple juice

Directions:

3. Put one (1) 100-mg doxycycline tablet into a small bowl. Crush the tablet with the back of the metal spoon until no large pieces are seen.



4. Add four (4) level teaspoons (tsp) of a food or drink to the crushed doxycycline. Stir them together until the drug looks evenly mixed with the food or drink.



How Much of the Doxycycline Mixture to Give a Child

The number of teaspoons of the doxycycline mixture to give a child depends on the child's weight. **If child's weight is unknown, weigh child before giving the first dose.** The chart tells you how much to give a child for one dose. You should give a child **two doses** each day (one in the morning and one in the afternoon).

<i>If the child weighs</i>	Give the child
4 – 11.5 pounds (lbs.)	One half (1/2) teaspoon (tsp) of the doxycycline mixture
11.5 – 22.5 (lbs.)	One (1) teaspoon of the doxycycline mixture
22.5 – 33.5 (lbs.)	One and one half (1 ½) teaspoons of the doxycycline mixture
33.5 - 45 (lbs.)	Two (2) teaspoons of the doxycycline mixture
45 - 55 (lbs.)	Two and one half (2 ½) teaspoons of the doxycycline mixture
55 - 65 (lbs.)	Three (3) teaspoons of the doxycycline mixture
65 - 77 (lbs.)	Three and one half (3 ½) teaspoons of the doxycycline mixture
77 - 88 (lbs.)	Four (4) teaspoons of the doxycycline mixture
Children heavier than 88 pounds who are exposed to anthrax should take one (1) 100-mg tablet of doxycycline two times a day (at the same time each day if possible) for 60 days. If the child cannot swallow tablets, use the directions for preparing a mixture and give 4 teaspoons twice a day.	

How already prepared Doxycycline mixture should be stored

- Doxycycline mixed with any of the recommended foods and drinks will keep for at least 24 hours.
- Store the mixture in a covered container and refrigerate.
- Mixtures made with juice can be stored at room temperature.
- Prepare the doxycycline mixture daily; unused portions should be thrown away.

Esta hoja explica cómo preparar dosis de emergencia de
Ciprofloxacina
para bebés y niños expuestos al **ántrax**

*Una vez que usted haya sido notificado por las autoridades federales, estatales y locales que la población ha sido expuesto a **ántrax**, puede ser necesario que tenga que preparar dosis de emergencia de Ciprofloxacina para infantes y niños, usando las tabletas de Ciprofloxacina.*

Usted necesitará:

- Una tableta de (1) 500 miligramos (mg) de ciprofloxacina
- Una cucharilla de metal
- Cucharas para medir [1 cucharilla; and ½ cucharilla]
(NOTA: las cucharas para medir son preferibles; no obstante, si no están disponibles, se puede usar la cuchara de metal para moler, medir y administrar la medicina)
- 1 tazón pequeño
- Una de las siguientes comidas o bebidas:
 - almíbar de chocolate
 - almíbar de caramelo
 - salsa de tomate o ketchup

Direcciones:

1. Ponga una (1) tableta de Ciprofloxacina de 500 mg. dentro del tazón. Triture la tableta con el dorso de la cuchara hasta que ya no se vean pedazos grandes.



2. Agregue seis (6) cucharillas niveladas de comida a Ciprofloxacina triturada. Revuélvalas hasta que la droga esté bien mezclada.



Cuánta mezcla de Ciprofloxacina hay que suministrar al niño

La cantidad de cucharillas de la mezcla de ciprofloxacina suministrada al niño depende del peso del niño. **Si no se conoce el peso del niño, hay que pesarlo antes de suministrar la primera dosis.** La tabla explica cuánta dosis de ciprofloxacina se debe dar al niño de acuerdo con su peso. Debe de suministrarle dos dosis diarias (una por la mañana y una por la tarde) x 10 días.

Si el niño pesa	Suministre
4 - 6.5 libras	Media (1/2) cucharilla de la mezcla de ciprofloxacina (2.5 ml)
7 - 12.5 libras	Una (1) cucharilla de la mezcla de ciprofloxacina (5 ml)
13 - 18 libras	Una cucharilla y media (1 ½) de la mezcla de ciprofloxacina (7.5 ml)
19 - 24 libras	Dos (2) cucharillas (tsp) de la mezcla de ciprofloxacina (10 ml)
25 - 30 libras	Dos cucharillas y media (2 ½) de la mezcla de ciprofloxacina (12.5 ml)
31 - 37 libras	Tres (3) cucharillas de la mezcla de ciprofloxacina (15 ml)
38 - 43 libras	Tres cucharillas y media (3 ½) de la mezcla de ciprofloxacina (17.5 ml)
44 - 49 libras	Cuatro (4) cucharillas de la mezcla de ciprofloxacina (20 ml)
50 - 55 libras	Cuatro cucharillas y media (4 ½) de la mezcla de ciprofloxacina (22.5 ml)
56 - 61 libras	Cinco (5) cucharillas de la mezcla de ciprofloxacina (25 ml)
62 - 67 libras	Cinco cucharillas y media (5 ½) de la mezcla de ciprofloxacina (27.5 ml)
68 - 73 libras	Seis (6) cucharillas de la mezcla de ciprofloxacina (30 ml) (1 tableta)

Niños que pesan más de 73 libras que han sido expuestos al **ántrax** deben tomar uno (1) pastilla de 500 mg. de ciprofloxacina dos veces diarias (a la misma hora del día, si es posible) durante 10 días. Si su niño no puede tragan las tabletas. Use las instrucciones para preparar la mezcla y dele 6 cucharaditas dos veces al día.

Como se debe almacenar la mezcla de ciprofloxacina preparada

- Prepare la mezcla diariamente.
- Guarde la mezcla en un recipiente cubierto y refrigérelo.
- Puede mantener la mezcla por lo menos 24 horas refrigerada.
- Descarte las porciones no usadas.

Esta hoja le explica cómo preparar dosis de emergencia de
Doxiciclina
para bebés y niños expuestos al **ántrax**

Una vez que haya sido notificado por sus autoridades federales, estatales y locales que la población ha sido expuesto a **ántrax**, puede ser necesario que tenga que preparar dosis de emergencia de Doxiciclina para infantes y niños usando tabletas de Doxiciclina.

Se necesita:

- Una tableta de (1) 100 miligramos (mg) de doxiciclina
- Una cucharilla de metal
- Cucharas para medir [1 cucharilla; and ½ cucharilla]
(NOTA: Las cucharas de medir son preferibles; no obstante, si no están disponibles, se puede usar la cuchara de metal para moler, medir y administrar la medicina)
- 1 tazón pequeño
- Una de las siguientes comidas o bebidas:
 - almíbar de chocolate
 - almíbar de caramelo
 - puré de manzana

Direcciones:

1. Ponga una (1) tableta de doxiciclina de 100 mg. dentro del tazón. Triture la tableta con el dorso de la cuchara hasta que ya no se vean pedazos grandes.



2. Agregue cuatro (4) cucharillas niveladas de comida a la mezcla de doxiciclina. Revuélvalas hasta que la droga esté bien disuelta.



Cuánta Mezcla de doxiciclina hay que suministrar al niño

El número de cucharillas de la mezcla de doxiciclina suministrada al niño depende del peso del niño. **Si no se conoce el peso del niño, hay que pesarlo antes de suministrar la primera dosis.** La tabla le explica que cantidad debe darle a su niño por dosis. Debe de suministrarle dos dosis diarias (una por la mañana y una por la tarde) por 10 días.

Si el niño pesa	Suministre
4 – 11 libras	Media (2.5 ml) cucharilla de la mezcla de doxiciclina
12 – 22 libras	Una (5 ml) cucharilla de la mezcla de doxiciclina
23 – 33 libras	Una y media (7.5 ml) cucharillas de la mezcla de doxiciclina
34 - 45 libras	Dos (10 ml) cucharillas de la mezcla de doxiciclina
46 - 55 libras	Dos y media (12.5 ml) cucharillas de la mezcla de doxiciclina
56 - 65 libras	Tres (15 ml) cucharillas de la mezcla de doxiciclina
66 - 77 libras	Tres y media (17.5 ml) cucharillas de la mezcla de doxiciclina
78 - 88 libras	Cuatro (20 ml) cucharillas de la mezcla de doxiciclina
Niños que pesan más de 88 libras que son expuestos al ántrax deben tomar una (1) pastilla de 100 mg. de Doxiciclina dos veces diarias (a la misma hora cada día, si es posible) durante 10 días. Si el niño no se puede tragar las pastillas, siga las indicaciones previas para preparar una mezcla y déle 4 cucharillas dos veces cada día.	

Como se debe almacenar la mezcla de doxiciclina

- Prepare la mezcla de Doxiciclina diariamente, guarde la mezcla en un recipiente cubierto y refrigérelo.
- La Doxiciclina mezclada con las comidas recomendadas se mantendrán bien por lo menos 24 horas.
- Descarte las porciones no usadas.

Thẻ này giải-thích cách pha chế lượng thuốc khẩn cấp của
Ciprofloxacin
 cho các bé thơ và trẻ em bị nguy hiểm về anthrax/bệnh than

Khi bạn được thông báo bởi liên bang, tiểu ban, hay chính quyền địa phương rằng bạn đã bị nguy hiểm về anthrax, điều cần thiết là pha chế **khẩn cấp** lượng thuốc của ciprofloxacin cho các bé thơ và trẻ em, dùng các viên ciprofloxacin.

Bạn sẽ cần:

- Một (1) viên ciprofloxacin 500 milligram (mg)
- Muỗng trà kim loại
- Muỗng phân lượng (1 muỗng trà; và ½ muỗng trà)
 (GHỈ CHÚ muỗng lượng thuốc được cấp, tuy nhiên nếu không sẵn có, hãy dùng muỗng kim loại để nghiền, đo lường và cho uống thuốc)
- 1 chén nhỏ
- Một trong các thực phẩm này
 - Nước ngọt sôcôla
 - Nước ngọt của maple/cây thích
 - Nước ngọt caramel/đường trắng
 - Ketchup/sốt cà chua

Hướng Dẫn

1. Đe một (1) viên ciprofloxacin 500-mg vào một cái chén nhỏ. Nghiền nát viên thuốc bằng phần lưng của muỗng kim loại cho đến khi không thấy các mảnh thuốc lon.



2. Thêm sáu (6) muỗng trà của thực phẩm vào ciprofloxacin nghiền nát. Khuấy đều cho đến khi thuốc hòa tan với thực phẩm.



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 VN-01/31/07

Thẻ này giải thích cách pha chế khẩn cấp lượng thuốc của

DOXYCYCLINE

cho bé thơ và trẻ em bị nguy hiểm về anthrax/bệnh than

Một khi bạn đã được thông báo bởi liên bang, tiểu bang, hay chính quyền địa phương rằng bạn đã bị nguy hiểm về anthrax, điều cần thiết là pha chế **khẩn cấp** các lượng thuốc của doxycycline cho các bé thơ và trẻ em, sử dụng các viên doxycycline

Bạn sẽ cần:

- Một (1) viên doxycycline 100 milligram (mg)
- Muỗng trà kim loại
- Muỗng đo lường (1 muỗng trà; và ½ muỗng trà)
(LỐI GHI CHÚ muỗng đo lường được cấp; tuy nhiên nếu không có sẵn; dùng muỗng kim loại để nghiền, đo lường và cho uống thuốc)
- 1 chén nhỏ
- Một của những thực phẩm này
 - Nước ngọt sôcôla
 - Nước ngọt maple/cây thích
 - Nước ngọt caramel/đường trắng
 - Sốt trái táo

Hướng dẫn:

1. Đặt một (1) viên doxycycline 100-mg vào chén nhỏ. Nghiền viên thuốc bằng phần lưng của muỗng kim loại cho đến khi không còn thấy những mảnh lớn.



2. Thêm bốn (4) muỗng trà bằng phẳng của thực phẩm vào doxycycline nghiền nát. Khuấy trộn đều với thực phẩm.



OCCHDPEDDOXY-JAN2007
VN-FEB2007

