

## OROPHARYNGEAL ANTHRAX


### Background:

Causative organism is *Bacillus anthracis*, an encapsulated, aerobic, gram-positive spore-forming rod-shaped bacterium. Humans become infected by exposure to spores from infected animals (e.g., sheep, goats or cattle), animal products, such as hides or hair, or intentional malicious acts of bioterrorism. The oropharyngeal form of anthrax is extremely rare. All suspected or confirmed cases of anthrax must be reported to the local department of public health and the Illinois Department of Public Health (IDPH).

### Incubation Period:

Usually 1 to 7 days after exposure to spores; germination may be prolonged for up to two months.

### Signs/Symptoms:

- 1) Fever and marked unilateral or bilateral neck swelling caused by regional lymphadenopathy
- 2) Severe dysphagia (  oropharyngeal pain in pediatrics)
- 3) Ulcers at base of tongue which initially may be edematous or hyperemic
- 4) Ulcers may progress to necrosis
- 5) There may be airway compromise from increased swelling

### Laboratory and Diagnostic Testing:

Call the local department of public health and IDPH to inform the state of a possible anthrax case and to obtain additional instructions as necessary.

- 1) Blood: gram-positive bacilli on unspun blood smear
- 2) Blood culture: aerobic growth of gram-positive bacilli
- 3) Pharyngeal swab for culture (Dacron or rayon swabs)

(see tables, next page)

**Treatment:**

**Table 1:**

| Category   | Initial Therapy (Oral)   | Duration   |
|--|--|--|
| Adults (including pregnant women and pregnant adolescents) | Ciprofloxacin 400 mg IV every 12 hrs <b>or</b><br>Doxycycline 100 mg IV every 12 hrs <b>and</b><br>One or two additional antimicrobials*   | IV treatment initially, switch to PO when clinically appropriate (see Table 1 for PO dosing).<br>Treat for a total of 60 days**<br>(IV & PO combined). |
| Children   | Ciprofloxacin 10-15 mg/kg every 12 hrs (not to exceed 1 g/day) <b>or</b><br>Doxycycline:<br>>8 yrs and >45 kg: 100 mg every 12 hrs <b>and</b><br>One or two additional antimicrobials*<br>All other children: 2.2 mg/kg every 12 hrs <b>and</b><br>One or two additional antimicrobials* | IV treatment initially, switch to PO when clinically appropriate (see Table 1 for PO dosing).<br>Treat for a total of 60 days**<br>(IV & PO combined). |
| Immunocompromised individuals                              | Same for non-immunocompromised adults and children   | Same for non-immunocompromised adults and children   |

Treatment of oropharyngeal anthrax in patients **with** systemic signs, extensive edema or lesions on the head and neck.

\* Additional antimicrobials include rifampin, vancomycin, penicillin, ampicillin, chloramphenicol, imipenem, clindamycin and clarithromycin.

\*\*Previous treatment guidelines for oropharyngeal anthrax suggested 7 to 10 days of therapy; however with the potential for bioterrorism, 60 days is recommended because of possible inhalational exposure.

**Do NOT use extended-spectrum cephalosporins or trimethoprim/sulfamethoxazole because anthrax may be resistant to these drugs.**