

**The Centers for Disease Control and Prevention**

**Antibiotic Post Exposure Prophylaxis Dosing Guidelines  
For The National Pharmaceutical Stockpile  
Components**

May 2001

### Anthrax Post-Exposure Prophylaxis Protocol

	Initial therapy	Duration
Adults, including pregnant women <sup>1, 2</sup> and Immuno-compromised	Ciprofloxacin 500 mg po BID <b>OR</b>	60 days
	Doxycycline 100 mg po BID	
Children <sup>1, 3</sup>	Ciprofloxacin 15-20 mg/kg po Q12 hrs <sup>4</sup> <b>OR</b>	60 days
	Doxycycline <sup>5</sup> : <u>&gt; 8 yrs and &gt; 45 kg</u> : 100 mg po BID <u>&gt; 8 yrs and ≤ 45 kg</u> : 2.2 mg/kg po BID <u>≤ 8 yrs</u> : (same as > 8 yrs and ≤ 45 kg)	

1. If susceptibility testing allows, therapy should be changed oral amoxicillin for post-exposure prophylaxis to continue therapy out to 60 days.
2. Although tetracyclines are not recommended during pregnancy, their use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6<sup>th</sup> month of gestation. Please consult physician after the 6<sup>th</sup> month of gestation for recommendations.
3. Use of tetracyclines and fluoroquinolones in children has adverse effects. These risks must be weighed carefully against the risk for developing life-threatening disease. If a release of *B. anthracis* is confirmed, children should be treated initially with ciprofloxacin or doxycycline as prophylaxis but therapy should be changed to oral amoxicillin 40 mg per kg of body mass per day divided every 8 hours (not to exceed 500 mg three times daily) as soon as penicillin susceptibility of the organism has been confirmed.
4. Ciprofloxacin dose should not exceed 1 gram/day in children.
5. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing and low incidence of gastrointestinal side effects.

### Tularemia Post-Exposure Prophylaxis Protocol<sup>1</sup>

	<b>Initial therapy</b>	<b>Duration</b>
<b>Adults</b>	Doxycycline 100 mg po BID <b>OR</b>	14 days
	Ciprofloxacin 500 mg po BID	
<b>Children</b>	Doxycycline <sup>2</sup> : <u>&gt; 8 yrs and &gt; 45 kg</u> : 100 mg po BID <u>&gt; 8 yrs and ≤ 45 kg</u> : 2.2 mg/kg po BID <u>≤ 8 yrs</u> : 2.2 mg/kg po BID <b>OR</b>	14 days
	Ciprofloxacin <sup>3</sup> 15-20 mg/kg BID	
<b>Pregnancy<sup>4</sup></b>	Same as for non-pregnant adults	<b>Pregnancy</b>
<b>Immuno-compromised</b>	Same as for non-immunosuppressed adults and children	<b>Immuno-suppressed</b>

1. Antimicrobial prophylaxis against possible aerosol exposure to *Francisella tularensis* is controversial. Since no human to human transmission of *F. tularensis* has been confirmed, close fever watch is the most appropriate course for persons exposed to *F. tularensis*. Tetracycline has been used with success to prevent tularemia in adult volunteers exposed to experimentally aerosolized *F. tularensis* when treatment (2 gm daily) was begun 24 hours after exposure and continued daily for 14 days. Tetracyclines are recommended for treating persons who have been exposed to a laboratory accident potentially resulting in aerosolized *F. tularensis*.
2. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing low incidence of gastrointestinal side effects.
3. Ciprofloxacin dose should not exceed 1 gram/day in children.
4. Although tetracyclines are not recommended during pregnancy, its use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6<sup>th</sup> month of gestation. Please consult physician after the 6<sup>th</sup> month of gestation for recommendations.

### Plague Post-Exposure Prophylaxis Protocol

	<b>Initial Therapy</b>	<b>Duration</b>
<b>Adults</b> including Pregnant women <sup>1</sup> and Immuno-compromised	Doxycycline 100 mg po BID	<b>7 Days</b> (after last contact with plague case)
<b>Children</b>	Doxycycline <sup>2</sup> : <u>&gt; 8 yrs and &gt; 45 kg:</u> 100 mg po BID <u>&gt; 8 yrs and ≤ 45 kg:</u> 2.2 mg/kg po BID <u>≤ 8 yrs:</u> 2.2 mg/kg po BID	

1. Although tetracyclines are not recommended during pregnancy, its use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6<sup>th</sup> month of gestation. Please consult physician after the 6<sup>th</sup> month of gestation for recommendations.
2. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing low incidence of gastrointestinal side effects.

## References:

1. Bacterial Zoonoses Branch, DVVID, NCID, CDC: (December 14, 1999)
2. Emerging Bacterial and Mycotic Disease Branch, DBMD, NCID, CDC: (February 12, 1999)
3. AHFS Drug Information® 1999
4. Drugs Facts and Comparisons® 2000
5. 1997 Red Book, Report of Committee on Infectious Diseases, 24<sup>th</sup> Edition, American Academy of Pediatrics
6. Mandell, Douglas, and Bennett's, Principles and Practices of Infectious Diseases, 5<sup>th</sup> Edition
7. Control of Communicable Diseases Manual, 16<sup>th</sup> Edition, 1995
8. Inglesby TV, Henderson DA, Bartlett JG, et al. Anthrax as a Biological weapon, Medical and Public Health Management. JAMA 1999; 281(18): 1735-1745.
9. Red Book 2000, American Academy of Pediatrics, 25<sup>th</sup> Edition.
10. Blaser J, Konig C. Once-Daily Dosing of Aminoglycosides. Eur J Microbiol Infect Dis., 1995, 14:1029-1038.
11. Abramson J, Jon S, Givner LB. Rocky Mountain Spotted Fever. [Review] Ped Inf Dis J. 18(6):539-540, June 1999.
12. Inglesby TV, Dennis DT, Henderson DA, et al. Plague as a Biological Weapon, Medical and Public Health Management. JAMA 2000;283(17):2281-2290.
13. Use of Anthrax Vaccine in the United States: Recommendations of the Immunization Practices Advisory Committee (ACIP), MMWR, December 15 2000/Vol. 49/No. RR-15.
14. Inglesby TV, Dennis DT, Henderson DA, et al. Tularemia as a Biological Weapon, Medical and Public Health Management. JAMA 2001, In Press.