

Current Recommended Antibiotics and Schedule for Prophylaxis and Treatment of Deliberate Release Agents

- These recommendations incorporate the decisions made by the HPA Advisory Group for Medical Countermeasures held 26/04/2006 to review the stockpile of antibiotics for deliberate release agents
- Antibiotic doses shown are for adults, including pregnant and breast-feeding women, unless otherwise stated
- Children's treatment, where it *varies* from adults, is shown in *italics* - in all cases the children's dose should not exceed the adult dose shown
- In a major incident information on how to access stocks can be found on the DH website: <http://www.dh.gov.uk/assetRoot/04/13/53/71/04135371.pdf>

Please note: Only the initial course (currently 3 days, although this is under review) of antibiotics for prophylaxis is held in pods as part of the stockpile. Arrangements for the supply of the remainder of the prophylactic course are being developed and individuals should be advised to report to their own GP.

Agent	Antibiotic Prophylaxis	Schedule for Prophylaxis	Antibiotic Treatment	Schedule for Treatment
<i>Bacillus anthracis</i>	Ciprofloxacin 500mg oral twice daily	Initial 3 days	Ciprofloxacin 400mg IV twice daily (<u>or</u> 500mg oral twice daily) <i>(children 10mg/kg IV twice daily <u>or</u> 15mg/kg oral twice daily)</i> <u>or</u> Doxycycline 100mg oral twice daily <i>(including children over 8y and more than 45kg)</i> <u>plus (for both adults and children)</u> one or two additional antibiotics agents with <i>in vitro</i> activity include, rifampicin, vancomycin, gentamicin, chloramphenicol, penicillin, amoxicillin, imipenem, meropenem and clindamycin	Duration of treatment is 60 days . Once the patients' condition improves and susceptibility of organism is known therapy should be changed to oral therapy with single antibiotic.
	Ciprofloxacin 500mg oral twice daily <i>(children 15mg/kg oral twice daily)</i> <u>or</u> Doxycycline 100mg oral twice daily <i>(children 2.2mg/kg PO bd)</i> <u>or</u> Amoxicillin 500mg oral three times daily <i>(children 80mg/kg in 3 doses)</i>	Further 57 days (to complete 60 days of prophylaxis)		

Agent	Antibiotic Prophylaxis	Schedule for Prophylaxis	Antibiotic Treatment	Schedule for Treatment
<i>Brucella</i>	Doxycycline 100mg oral twice daily <u>plus</u> Rifampicin 600mg oral daily	3 weeks	Doxycycline 100mg oral twice daily <i>(child >12 yrs: 2mg/kg oral twice daily)</i> <u>plus either</u> Rifampicin 600mg oral daily <i>(child >12 yrs: 10-15mg/kg oral daily)</i>	6 weeks for doxycycline or rifampicin
	<u>or</u> Co-trimoxazole 960mg oral twice daily <i>(children under 12 years sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg oral daily)</i>	3 weeks	<u>or</u> Gentamicin <i>(adults and children)</i> 5mg/kg IV daily	2 weeks for gentamicin (NB: when gentamicin is given it is important to monitor drug levels in the blood)
			<u>Pregnant or breast-feeding women:</u> Rifampicin 900mg oral daily	6 weeks
			<u>Children under 12 years:</u> Co-trimoxazole <i>(sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg) oral daily</i> <u>plus either</u> Rifampicin 10-15 mg/kg oral daily <u>or</u> Gentamicin 5mg/kg IV daily	6 weeks

Agent	Antibiotic Prophylaxis	Schedule for Prophylaxis	Antibiotic Treatment	Schedule for Treatment
<p><i>Burkholderia pseudomallei</i></p> <p>and</p> <p><i>Burkholderia mallei</i></p>	<p>Doxycycline 100mg oral twice daily</p> <p>or</p> <p>Co-trimoxazole 960mg oral twice daily (children under 12 years sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg oral daily)</p>	<p>7 days</p>	<p>Ceftazidime 120mg/kg/day IV as 3 doses (adults usually 2g tds)</p> <p>or</p> <p>Meropenem 50mg/kg/day IV 3 doses (adults usually 1g tds)</p> <p>or</p> <p>Imipenem with cilastatin 50mg/kg/day IV 3 doses (adults usually 1g tds)</p> <p><u>Alternatively for <i>B. mallei</i> only</u></p> <p>Gentamicin 5mg/kg once daily</p> <p>plus Co-trimoxazole sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg oral daily</p>	<p>Length of intravenous treatment dependent on response – minimum of 14 days.</p> <p>Follow with oral "eradication" therapy (see below) to complete a total of 20 weeks.</p> <p>2 weeks (NB: when gentamicin is given it is important to monitor drug levels in the blood)</p>
			<p><u>Recommended oral "eradication"</u></p> <p>Doxycycline 4mg/kg/day</p> <p>plus Co-trimoxazole (sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg) oral daily</p> <p>or (especially for children and pregnant women)</p> <p>Co-amoxiclav 60/15mg/kg/day (usual adult dose two 625 mg tablets every 6h)</p>	<p>20 weeks</p>

Agent	Antibiotic Prophylaxis	Schedule for Prophylaxis	Antibiotic Treatment	Schedule for Treatment
<i>Clostridium botulinum</i>	Botulism is generally caused by ingestion or inhalation of preformed toxin therefore specific treatment is with an antitoxin. Antimicrobial chemotherapy is only appropriate in cases of wound botulism: use penicillin and metronidazole according to standard dosing regimens. Antibiotic prophylaxis is not recommended.			
<i>Coxiella burnettii</i>	Chemoprophylaxis is not effective and may prolong the onset of Q fever if given within 7 days of exposure. Prophylaxis to start 8-12 days post exposure.		Tetracycline 500mg qds	7-14 days Continue treatment for at least 3 days after remission of fever.
	Doxycycline 100mg bd <u>or</u> (particularly for pregnant or breast-feeding women) Co-trimoxazole 960mg oral twice daily (children under 12 years sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg oral daily)	7 days	<u>or</u> Doxycycline 100mg oral twice daily	
			<u>Pregnant or breast-feeding women:</u> Co-trimoxazole 960mg oral twice daily	Until term
		<u>Children under 12 years:</u> Co-trimoxazole (sulfamethoxazole 40mg/kg and trimethoprim 8mg/kg) oral daily using trimethoprim 4mg/kg twice daily	2 weeks	

Agent	Antibiotic Prophylaxis	Schedule for Prophylaxis	Antibiotic Treatment	Schedule for Treatment
<i>Francisella tularensis</i>	Ciprofloxacin 500mg oral twice daily	Initial 3 days	Gentamicin 5mg/kg IM or IV once daily <i>(children: 2.5mg/kg IV three times daily)</i> <u>or</u> Ciprofloxacin 400mg IV twice daily (change to oral 500mg twice daily when appropriate) <i>(children: 15mg/kg IV twice daily change to oral 10-15mg/kg twice daily)</i>	14 days Gentamicin is first choice in pregnancy but as divided daily doses rather than once daily [multiple dose] – seek specialist advice. (NB: when gentamicin is given it is important to monitor drug levels in the blood and ideally to give a hearing check)
	Ciprofloxacin 500mg oral twice daily <i>(children: 15mg/kg oral twice daily)</i> <u>or</u> Doxycycline 100mg twice daily <i>(2.2mg/kg oral twice daily)</i>	Further 11 days (to complete 14 days of prophylaxis)		
<i>Yersinia pestis</i>	Ciprofloxacin 500mg oral twice daily	Initial 3 days	Gentamicin (first choice pregnancy) 5mg/kg IM or IV daily <u>or</u> Doxycycline 100mg oral twice daily <i>(children: 2.2mg/kg oral twice daily)</i> <u>or</u> Ciprofloxacin 400mg IV twice daily (or 500mg oral bd) <i>(children: 10mg/kg IV twice daily)</i> <u>or</u> Chloramphenicol (for meningitis) 25mg/kg IV four times daily	14 days
	Ciprofloxacin 500mg oral twice daily <i>(children: 15mg/kg oral twice daily)</i> <u>or</u> Doxycycline 100mg oral twice daily <i>(children: 2.2mg/kg oral twice daily)</i>	Further 4 days (to complete 7 days of prophylaxis)		

Summary Table of Recommended Antibiotic Prophylaxis for Deliberate Release Agents

Agent	First line prophylaxis	Second line prophylaxis	Third line prophylaxis
Anthrax	Ciprofloxacin	Doxycycline	Amoxicillin
Brucella	Doxycycline plus Rifampicin	Co-trimoxazole	-
Burkholderia	Doxycycline	Co-trimoxazole	-
Botulinum	Specific treatment is with antitoxin - antibiotic prophylaxis is NOT recommended		
Q-fever	Doxycycline	Co-trimoxazole	-
Tularemia	Ciprofloxacin	Doxycycline	-
Plague	Ciprofloxacin	Doxycycline	-