

CP-130 SERIES CLINICAL PHARMACY SOAP FORM WORKSHEET CASE TOPIC **BIOTERRORISM** COURSE **CP 131** YEAR **WINTER 2003**

SUBJECTIVE/OBJECTIVE	ASSESSMENT		PLAN		
PROBLEM SUBJECTIVE & OBJECTIVE EVIDENCE	ETIOLOGY	EVALUATE NEED FOR THERAPY; EVALUATE CURRENT THERAPY; THERAPY OPTIONS	RECOMMEND DRUG TREATMENT; FURTHER TESTS	GOALS & MONITORING PARAMETERS (TOXIC & THERAPEUTIC)	PATIENT EDUCATION
<p><b>BIOTERRORISM</b> <b>Inhalation Anthrax</b> (incubation period 1-5d) Subjective</p> <ul style="list-style-type: none"> <li>Flu-like sx's: Malaise, fatigue, fever, myalgias, non-production cough</li> <li>Respiratory distress, diaphoresis, shock</li> </ul> <p>Objective</p> <ul style="list-style-type: none"> <li>CXR: Mediastinal widening, pleural effusion</li> <li>↑ WBC (neutrophil predominance)</li> <li>↑ ALT/AST</li> <li>(+) Bacteremia early on in the dz.</li> </ul> <p><b>Cutaneous Anthrax</b> (incubation period 1-12d) S/sxs:</p> <ul style="list-style-type: none"> <li>Flu-like sx's: Fatigue, fever, chills, lymphadenopathy or concomitant bacteremia</li> <li>Painless papule vesicles → vesicles or bullae; edema → necrosis, painless, black eschar</li> </ul> <p><b>GI Anthrax</b> S/sxs:</p> <ul style="list-style-type: none"> <li>N/V/D (may be bloody), anorexia</li> <li>Fever</li> </ul> <p><b>Oropharyngeal Anthrax</b> S/sxs:</p> <ul style="list-style-type: none"> <li>Pharyngitis, dysphagia, fever, LAN (lymphadenopathy), cervical edema, tissue necrosis, may develop into sepsis</li> </ul>	<p>Anthrax: aerobic, G(+), spore-forming rod</p> <p>Naturally occurring zoonotic dz</p> <p>Modes of transmission: Inhalation, ingestion, inoculation; not via person to person</p> <p>Spores are resistant to physical &amp; chemical agents</p> <p>Risk of contracting anthrax is rare, so no prophylaxis is needed</p>	<p>Yes, to prevent respiratory distress and death</p> <p><b>Options</b> <b>Inhalation Anthrax</b> <b>Ciprofloxacin</b></p> <ul style="list-style-type: none"> <li>Cons: GI, rash, photosensitivity, QT prolongation, cartilage toxicity, CNS (anxiety, nervousness, insomnia), HA, dizziness</li> <li>Rare: ↑ LFTs, bone marrow suppression, renal failure, seizure</li> <li>DDI: FQs are P450 inhibitors (Cipro&gt;&gt;&gt;Levo, Moxi, Norfloxacin); Multivalent cations ↓ [FQs]</li> <li>Avoid in kids &lt; 18yo &amp; preg females (in anthrax, benefit outweigh risks, so ok to use)</li> </ul> <p><b>Doxycycline</b></p> <ul style="list-style-type: none"> <li>Cons: GI (N/D/esophageal ulceration), photosensitivity, ↑ BUN in pts w/ renal failure; multivalent cations ↓ [Doxy]; avoid in kids &lt; 8yo &amp; preg females (benefit outweighs risks, so ok to use)</li> </ul> <p><b>Cutaneous Anthrax</b> <b>Cipro or doxy</b> X 60 days If signs or systemic involvement, or involves head or neck, treat as inhalation anthrax</p> <p><b>GI or oropharyngeal anthrax</b> Treat as inhalation anthrax</p> <p><b>POST-EXPOSURE PROPHYLAXIS</b> Adult: Cipro or doxy Child: Cipro or doxy Preg female: Cipro Cons: non-adherence because Abx duration of 60 days</p>	<p><b>Inhalation Anthrax treatment</b> <b>Adult &amp; preg women:</b> Cipro 400mg IV q12h OR Doxy 100mg IV q12h + 1-2 additional agents (rifampin, vancomycin, PCN, ampicillin, CAM, imipenem, clindamycin, clarithromycin) X 60 days then change to PO Cipro/Doxy when appropriate</p> <p><b>Children:</b> Cipro 10-15mg/kg IV q12h OR Doxy X 60 days → PO</p> <ul style="list-style-type: none"> <li>&gt; 8yo &amp; &gt; 45kg: 100mg IV q12h</li> <li>&gt; 8yo &amp; ≤ 45kg OR ≤ 8yo: 2.2mg/kg q12h + 1-2 additional agents</li> </ul> <p><b>Post-Exposure Prophylaxis</b> <b>Adult:</b> Cipro 500mg PO BID or Doxy 100mg PO BID <b>Child:</b> Cipro 10-15mg/kg IV q12h OR Doxy</p> <ul style="list-style-type: none"> <li>&gt; 8yo &amp; &gt; 45kg: 100mg IV q12h</li> <li>&gt; 8yo &amp; ≤ 45kg OR ≤ 8yo: 2.2mg/kg q12h</li> </ul> <p><b>Preg women:</b> Cipro 500mg PO BID</p>	<p><b>Goals</b> To reduce and prevent mortality</p> <p><b>Monitor</b></p> <ul style="list-style-type: none"> <li>S/sxs</li> <li>WBC</li> <li>ALT/AST</li> <li>CXR</li> </ul> <p><b>Adverse Effects</b> See Options</p>	<ul style="list-style-type: none"> <li>Be informed</li> <li>Suspicious mail: Don't shake or empty</li> <li>Don't carry pckge, show others, or allow others to examine</li> <li>Put envelope on stable surface</li> <li>Don't touch, sniff, or taste</li> <li>Alert others, leave area, turn off ventilation</li> <li>Wash hands</li> <li>Notify supervisor, law enforcement</li> <li>Create list of all ppl in area or who handled mail</li> <li>Abxs need to be started ASAP</li> <li>Know adverse effects of medications: Don't take with antacids or space it out 1 hour before or 2 hours after abx</li> <li>Wear sunblock</li> <li>Wear long sleeve clothing</li> <li>Don't drink Etoh</li> </ul>