

## Clinical Practice Guidelines Overview: Pediatric Outpatient Antimicrobial Recommendations for Select Head and Chest Infections

*Bronchiolitis and common cold (non-specific upper respiratory tract infection/URI) are not included due to viral etiology. Antibiotic therapy is not routinely recommended unless concern for bacterial superinfection as below.*

Diagnosis	Indication for Testing or Treatment	First-line therapy:	Second-line or failure*	Non-type 1 $\beta$ -lactam allergy	Severe type 1 $\beta$ -lactam allergy	Duration
<b>Acute Otitis Media (AOM)</b>  <b>Children over 2 months old</b>	<ol style="list-style-type: none"> <li>Severe bilateral or unilateral AOM (moderate to severe otalgia, otalgia &gt;48h, or temperature &gt; 39°C)</li> <li>Mild bilateral AOM for children &lt;2 years of age</li> <li>Considerations to watch and wait:               <ol style="list-style-type: none"> <li>Unilateral AOM for children 6 months to 23 months</li> <li>Bilateral or unilateral AOM in children &gt;2 years of age</li> <li>If failure*, initiation of antibiotic therapy is warranted</li> </ol> </li> <li>Use second-line recommendation if failure*, in presence of purulent conjunctivitis, or receipt of amoxicillin within 30 days</li> </ol>	<p><b>Watchful waiting</b></p> <p style="text-align: center;">OR</p> <p><b>Amoxicillin</b> 90 mg/kg/day divided BID (max: 1000 mg/dose)</p> <p><b>If tubes:</b>  <b>Ofloxacin Otic</b> 5 drops in affected ear BID or  <b>Ciprofloxacin/Dexamethasone Otic</b> 4 drops BID for 10 days</p>	<p><b>Amoxicillin-clavulanate</b> 90 mg/kg/day (amoxicillin component) divided BID (max: 1000 mg/dose)</p> <p><b>Ceftriaxone</b> 50 mg/kg IM daily x3 days (max dose 2000 mg)</p>	<p><b>Cefdinir</b> 14 mg/kg/day divided BID (max dose 300mg/dose)</p>	<p><b>Levofloxacin</b>            Age &lt;5 yrs: 20 mg/kg/day divided BID            Age &gt;5 yrs: 10 mg/kg daily</p>	<p>&lt;2 years of age: 10 days;</p> <p>&gt;2 years of age: 7 days</p>
<b>Group A Streptococcus Pharyngitis (GAS)</b>	<ol style="list-style-type: none"> <li>Discriminate between GAS vs viral pharyngitis with use of rapid antigen detection test (RADT), PCR, or throat culture</li> <li>Testing and treatment not routinely indicated:               <ol style="list-style-type: none"> <li>Presumed viral pharyngitis with associated rhinorrhea, cough, oral ulcers, hoarseness</li> <li>Children &lt; 3 yrs of age, unless risk factors or close contact with GAS</li> </ol> </li> <li>For recurrent episodes of pharyngitis, consider possibility of chronic carrier status which does not routinely require treatment</li> </ol>	<p><b>Amoxicillin</b> 50 mg/kg once daily (max: 1000 mg daily/dose)</p> <p style="text-align: center;">OR</p> <p><b>Benzathine Penicillin G</b> IM x1 dose            &lt;27 kg 600,000 units            ≥27 kg 1,200,000 units</p>		<p><b>Cephalexin</b> 40 mg/kg/day divided BID (max: 500 mg/dose)^</p>	<p><b>Azithromycin</b> 12 mg/kg once daily (max: 500 mg daily/dose) for 5 days</p>	<p>10 days</p>
<b>Acute Infectious Conjunctivitis</b>	<ol style="list-style-type: none"> <li>Conjunctival infection, purulent discharge</li> <li>Difficult to differentiate between viral vs. bacterial conjunctivitis</li> <li>Extremely contagious, encourage good hand washing</li> </ol>	<p><b>Polymyxin B/Trimethoprim Ophthalmic drops</b> 1-2 drops four times daily</p>	<p><b>Aminoglycoside or Fluoroquinolone Ophthalmic</b> drops are acceptable alternatives, <u>however moxifloxacin should be reserved for ophthalmology use</u>.</p>			<p>7 days</p>

Diagnosis	Indication for Testing or Treatment	First-line therapy:	Second-line or failure*	Non-type 1 β-lactam allergy	Severe type 1 β-lactam allergy	Duration
<b>Bacterial Sinusitis</b>	<ol style="list-style-type: none"> <li>Persistent nasal discharge or daytime cough lasting &gt;10 days without improvement</li> <li>Worsening or new onset nasal discharge, daytime cough, headache or fever after initial improvement</li> <li>Severe onset (temperature ≥ 39°C, facial pain, purulent nasal discharge for ≥3 days) <ol style="list-style-type: none"> <li>Typical age is 4-7 years, less common &lt;2 yrs of age.</li> <li>Sinus development = maxillary/ethmoid (birth-age 4) &gt; sphenoid (age 2-5) &gt; frontal (age 7 – adulthood)</li> </ol> </li> </ol>	<p><b>Watchful waiting</b></p> <p>OR</p> <p><b>Severe or Worsening Symptoms:</b>  <b>Amoxicillin-clavulanate</b>  90 mg/kg/day (amoxicillin component) divided BID (max: 2000 mg/dose)</p> <p>OR</p> <p><b>Persistent Symptoms Only:</b>  <b>Amoxicillin</b> 90 mg/kg/day divided BID (max 2000 mg/dose)</p>	<p><b>Clindamycin</b>  40 mg/kg/day divided TID (max: 600 mg/dose)</p> <p><b>PLUS EITHER</b>  <b>Cefpodoxime</b>  10 mg/kg/day divided BID (max:200 mg/dose) OR  <b>Cefixime</b>  8 mg/kg divided BID (max: 400 mg/dose)</p>	<p><b>Clindamycin</b>  40 mg/kg/day divided TID (max: 600 mg/dose)</p> <p><b>PLUS EITHER</b>  <b>Cefpodoxime</b>  10 mg/kg/day divided BID (max:200 mg/dose) OR  <b>Cefixime</b>  8 mg/kg divided BID (max: 400 mg/dose)</p>	<p><b>Levofloxacin</b>  Age &lt;5 yrs:  20 mg/kg/day divided BID  Age &gt;5 yrs:  10mg/kg daily</p>	<p>Minimum 10 days, continue 7 days after resolution of symptoms</p>
<b>Community-Acquired Pneumonia (CAP)</b>	<ol style="list-style-type: none"> <li>Mild-moderate CAP suspected bacterial in origin</li> <li>Consider inpatient therapy if respiratory distress, hypoxemia, inadequate follow up, not tolerating oral therapy</li> </ol>	<p><b>Amoxicillin</b> 90 mg/kg/day divided BID (max: 2000 mg/dose)</p> <p><b>≥ 5 yrs old consider adding coverage for atypical pneumonia</b>  <b>Azithromycin</b> 10 mg/kg day 1 (max 500 mg/dose) followed by 5 mg/kg days 2-5 (max 250 mg/dose)</p> <p><b>Influenza pneumonia:</b>  <b>Oseltamivir-</b> 5 days course  <i>For children ≥12 months</i>  ≤15 kg: 30 mg twice daily  &gt;15 to 23 kg: 45 mg twice daily  &gt;23 to 40 kg: 60 mg twice daily  &gt;40 kg: 75 mg twice daily</p> <p><i>For children &lt; 12 months</i>  1-8 months: 3 mg/kg/dose twice daily  9-11 months: 3.5 mg/kg/dose twice daily</p>	<p><b>Amoxicillin-clavulanate</b>  90 mg/kg/day divided BID (max: 2000 mg/dose)</p>	<p><b>First line:</b>  <b>Clindamycin</b>  40 mg/kg/day divided TID (max 600 mg/dose) x 10 days</p> <p><b>Second line:</b>  <b>Clindamycin PLUS EITHER</b>  <b>Cefpodoxime</b>  10 mg/kg/day divided BID (max:200 mg/dose) OR  <b>Cefixime</b>  8 mg/kg divided BID (max: 400 mg/dose)</p>	<p><b>First line:</b>  <b>Clindamycin</b>  40 mg/kg/day divided TID (max 600 mg/dose) x 10 days</p> <p><b>Second line:</b>  <b>Levofloxacin</b>  Age 6 months – 5 yrs:  20 mg/kg/day divided BID (max: 375 mg/dose)  Age &gt;5 yrs:  10 mg/kg/day (max 750 mg/dose)</p>	<p>10 days</p>

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- Chow AW, et al. *IDSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults*. Clin Infect Dis 2012. 54(8): e72-112.
- Cronau H, et al. *Diagnosis and Management of Red Eye in Primary Care*. Am Fam Physician 2010. 81:137-44. L. Moore, A. Desai, E. Johnson, B. Kilbane, D. Hertz July 2017
- Lieberthal AS, et al. *The Diagnosis and Management of Acute Otitis Media*. Pediatrics 2013. 131(3): e964-99.
- Shulman ST, et al. *Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2012 Update by the Infectious Diseases Society of America*. Clin Infect Dis 2012. 55(10):1279-82.
- Wald ER, et al. *Clinical Practice Guideline for the Diagnosis and Management of Acute Bacterial Sinusitis in Children Aged 1 to 18 years*. Pediatrics 2013. 132(1): e262-80.

\*Failure is defined as lack of clinical improvement within 48-72 hours

^Do not use if anaphylaxis, angioedema, urticaria, or bronchospasm to  $\beta$ -lactam; consider ID consultation for treatment recommendations or Allergy referral for penicillin allergy testing.

~This handout is intended to provide a framework for clinical decision-making and is not meant to replace clinical judgment

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