Antimicrobial Treatment

Community Acquired Pneumonia

This antimicrobial treatment table accompanies the Community Acquired Pneumonia Bottom Line Recommendations, a short summary of the latest knowledge related to the diagnosis and management of community acquired pneumonia.

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- Most cases of CAP in preschool children well enough to be managed as outpatients are viral in origin. In such cases, **mild CAP should be treated with supportive care and does not necessarily require antibiotics.**[7]
- When antibiotics are prescribed for CAP, the following are recommended:

Clinical Scenario	Antibiotic	Notes
Outpatient	Amoxicillin 45 mg/kg/day PO divided TID **-OR-** 90 mg/kg/day PO divided TID or BID (MAX 3 – 4 g/day)*	Amoxicillin is first-line treatment for CAP. Treat for 5 days.[10,11]
Outpatient with known penicillin allergy (rare in children)	Cefuroxime 30 mg/kg/day PO divided BID (MAX 1 g/day) **-OR-** Cefprozil 30 mg/kg/day PO divided BID (MAX 1 g/day) **-OR-** **If prior life-threatening allergy**: Choose an alternative agent based on local antibiogram, such as: clarithromycin, azithromycin or levofloxacin.	Verify if allergy is consistent with anaphylaxis (e.g., difficulty breathing, hypotension) or a severe cutaneous reaction (e.g., Stevens Johnson syndrome). Patients with "penicillin allergy" but at low risk for IgE-mediated reaction (e.g., prior non-severe rash or gastrointestinal side effects) should receive an oral challenge with amoxicillin. Pneumococcal resistance to macrolides (e.g., clarithromycin) is increasing. Treat for 5 days.
Hospitalized	Ampicillin 200 mg/kg/day IV divided q6h (MAX 8 g/day)	IV ampicillin is first-line if unable to tolerate amoxicillin/need hospitalization.
Hospitalized with known penicillin allergy (rare in children)	Cefuroxime 150 mg/kg/day IV divided q8h (MAX 6 g/day) **-OR-** Ceftriaxone 75 mg/kg/day divided q24h. (MAX 2 g/day) **-OR-** **If prior life-threatening allergy**: Choose an alternative agent based on local antibiogram, such as azithromycin, levofloxacin, or vancomycin.	Verify if allergy is consistent with anaphylaxis (e.g., difficulty breathing, hypotension) or a severe cutaneous reaction (e.g., Stevens Johnson syndrome). Pneumococcal resistance to macrolides (e.g., azithromycin) is increasing.

*Use higher range of dosing divided TID in regions with higher rates of pneumococcal resistance to beta-lactams.

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