

ANMC Pediatric (≥3mo) Ambulatory Community Acquired Pneumonia (CAP) Treatment Guideline

Criteria For Outpatient Management

- Mild CAP: no signs of respiratory distress and SpO₂ ≥90% on room air
- Able to tolerate PO
- No concerns for pathogen with increased virulence (ex. CA-MRSA)
- Family able to carefully observe child at home, comply with therapy plan, and attend follow up appointments

If patient does not meet outpatient management criteria refer to inpatient pneumonia guideline for initial workup and testing.

Testing/Imaging

- Vital Signs: Standard VS and Pulse Oximetry
- Labs: No routine labs indicated for children well enough to be managed outpatient
 - Influenza PCR during influenza season
 - Blood cultures if not fully immunized OR fails to improve/worsens after initiation of antibiotics
 - Urinary antigen detection testing is not recommended in children; false-positive tests are common.
- Radiography: No routine CXR indicated for children well enough to be managed outpatient
 - AP and lateral CXR if fails initial antibiotic therapy
 - AP and lateral CXR 4-6 weeks after diagnosis if recurrent pneumonia involving the same lobe

Treatment Selection

Suspected Bacterial Pneumonia

Most Common Pathogens: *Streptococcus pneumoniae*, *Haemophilus influenzae*

Demographics	Preferred Treatment	Treatment Alternatives for β-Lactam Allergy
Previously Healthy AND Appropriately Immunized for Age	Amoxicillin 45mg/kg PO BID (Max dose 4000mg/day) x 7 days	<u>Non-Type 1 β-Lactam Allergy:</u> Cefuroxime £ 15mg/kg PO BID (Max 1000mg/day) x 10 days*
Not appropriately immunized with PCV13 + Hib OR Suspicion for <i>H. influenzae</i>	Amoxicillin/clavulanate <40kg: (ES 600mg/42.5mg/5mL) 45mg/kg PO BID or 15mg/kg PO TID (Max dose 4000mg/day) x 10 days* >40kg: 875mg/125mg PO BID PLUS Amoxicillin 1g PO BIDx 7 days	<u>Type 1 β-Lactam Allergy:</u> Levofloxacin <5 years: 10mg/kg PO BID (Max dose 750mg/day) x 10 days* >5 years: 10mg/kg PO daily (Max dose 750mg/day) x 10 days*

Suspected Atypical Pneumonia

Most Common Pathogens: *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*

Demographics	Preferred Treatment	Alternatives
Most common in ≥5yo In ≥5yo macrolide may be empirically added if there is no clinical evidence that distinguishes bacterial from atypical CAP	Azithromycin 10mg/kg PO daily x 3 days (Max dose 500mg/day)	For children >7yo: Doxycycline 1-2 mg/kg PO BID (Max dose 200mg/day) x 10 days*

Suspected Viral Pneumonia

Most Common Pathogens: Influenza A & B, Adenovirus, Respiratory Syncytial Virus, Parainfluenza

Most common in <5yo	No antimicrobial therapy is necessary. If influenza positive, see influenza guidelines for treatment algorithm.
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CONSIDERATIONS

- *For bacterial CAP 10 day durations have been best studied, shorter courses may be considered for mild disease able to be managed as an outpatient
- Children should show clinical signs of improvement within 48-72 hours
- £ Cefuroxime oral suspension has been discontinued, consider cefprozil 15mg/kg PO BID (max dose 500mg) in children >6 months of age needing liquid antibiotic

Antimicrobial Stewardship Program Approved 2018

REFERENCES: Bradley IDSA CAP Infants & Children 2011; AAP endorsed. Ficnar B, et al. Azithromycin: 3-Day Versus 5-Day Course in the Treatment of Respiratory Tract Infections in Children. *J Chemother.* 1997;9(1):38-43. Kogan R, et al. Comparative Randomized Trial of Azithromycin versus Erythromycin and Amoxicillin for Treatment of Community-acquired Pneumonia in Children. *Pediatr Pulmonol.* 2003; 35(2):91-8.