

- Cefdinir is **not** preferred for treatment of pediatric bacterial infections due to (1) poor pharmacokinetic (PK) characteristics; (2) high rates of resistance; and (3) broad but mismatched spectrum of coverage3,4,5
- Amoxicillin-clavulanate products are not interchangeable. Incorrect ratios could lead to sub therapeutic concentrations or severe diarrhea. High-dose, BID regimens should use 14:1 or 16:1formulations: 600 mg/42.9mg per 5 mL (ES) or 1000 mg/62.5mg (Extended Release) tablet
- Up to 90% of penicillin allergies are misdiagnosed. Always clarify history of allergy and de-label if appropriate (e.g. family history without patient history). For more information on patient screening, contact the ASP pharmacist (502-629-5568) or consider referral to outpatient allergy.



Common CAP Bacterial Pathogens

- Streptococcus pneumoniae
- Haemophilus influenzae
- Streptococcus pyogenes
- Staphylococcus aureus
- Moraxella catarrhalis

- <u>Atypical Pathogens</u>
- Mycoplasma pneumoniae
- Chlamydia trachomatis
- ▶ C. pneumoniae

Antibiotic dosing

- Amoxicillin 80-90 mg/kg oral BID (max 4,000 mg/day)
- Amoxicillin-clavulanate 90 mg/kg per day oral in 2 divided doses (max 4,000 mg amoxicillin/day)
 - Using ES-600 suspension or 1000 mg/62.5 mg ER tablet
- Cefuroxime 30 mg/kg oral BID (max 500 mg/dose)
- Cefpodoxime 10 mg/kg oral BID (max 200 mg/dose)
- Azithromycin 10 mg/kg once on day 1 (max 500 mg/dose), followed by 5 mg/kg/dose (max 250 mg/dose) once daily on days 2 to 5
- Clarithromycin 7.5 mg/kg BID (max 500 mg/dose)
- Levofloxacin < 5 years: 10 mg/kg BID; 5-16 years: 10 mg/kg once daily (max 750 mg/dose)



References

- 1. Bradley JS, et al; The management of community-acquired pneumonia in infants and children older than 3 months of age: clinical practice guidelines by the Pediatric Infectious Diseases Society and the Infectious Diseases Society of America. Clin Infect Dis. 2011 Oct;53(7):e25-76.
- 2. Committee on Infectious Diseases, System-based treatment table editors: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, eds. *Red Book*
 - 2021-2024 Report of rfie Committee on Infectious Diseases. 32 ed. Itasca, IL: American Academy of Pediatrics; 2021:990-1003.
- 3. Waffles B, Vidwan N, Ghosal S, Feygin Y, Creel L, Myers J, Woods C, Smith M. Cefdinir use in the Kentucky Medicaid population: a priority for outpatient antimicrobial stewardship. Journal of the **Pediatric** Infectious **Diseases** Society. **2021** Feb;10(2):157-60.
- 4. Parker S, Mitchell M, Child J. Cephem antibiotics: wise use today preserves cure for tomorrow. Pediatr Rev 2013; 34:510-23; quiz 523-4.
- 5. Harrison CJ, Woods C, Stout G, et *al.* Susceptibilities *oiHaemophilus influenzae,Streptococcus pneumoniae,* including serotype 19A, andMoraxe/la catarrfia/ispaediatric isolates from 2005 to 2007 to commonly used antibiotics. J Antimicrob Chemother 2009; 63:511—9.

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The policies set forth in this policy library do not establish a standard to be followed in every case. It is impossible to anticipate all possible solutions that may exist and to prepare policies for each. These policies should be considered guidelines with the understanding that departures from them may be required at times. Accordingly, it is recognized that those individuals employed in providing healthcare are expected to use their own judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. If a policy contains references to clinical literature or other resources, such as Lippincott, Ovid, and/or Elsevier, these resources are only intended to support the reasoning for adoption of certain guidelines contained herein. It is not an endorsement of any article or text as authoritative. Norton Healthcare specifically recognizes there may be articles or texts containing other opinions on point that may be helpful and valid which would support other care or actions, given a particular set or circumstances. No literature is ever intended to replace the education, training and experience or exercise of judgment of the healthcare providers.

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