Guide to Amoxicillin Dosing

Spectrum

Yes	Enterococcus sp Beta-lactamase-negative Haemophilus influenzae Streptococcus species Streptococcus pneumoniae Listeria monocytogenes Susceptible Gram-negative organisms (Escherichia coli, Klebsiella pneumoniae, Proteus sp)
No	Anaerobes *Staphylococcus aureus* (MSSA & MRSA) Resistant gram-negative bacilli

Amoxicillin Dosing

High dose: 90 mg/kg/day

- Recommended in circumstances where suspicion for resistant *Streptococcus pneumoniae* is high, examples may include:
  - AOM
  - Bacteremia
  - CAP
- Infections in locations that are challenge to penetrate (ie osteomyelitis)
- < 4% of local CW *Streptococcus pneumoniae* was resistant (2022 data)

Standard dose: 45 mg/kg/day

- Recommended where coverage of resistant *Streptococcus pneumoniae* is <u>not</u> needed, examples may include:
  - Pharyngitis/tonsillitis
  - UTI

Adverse Event Risk

	Standard Dose amoxicillin	High Dose amoxicillin
Diarrhea	8.7%	13.8%
Rash	2.9%	6.5%
Diaper Dermatitis	6.4%	-

Hum SW, Shaikh KJ, Musa SS, Shaikh N. Adverse events of antibiotics used to treat acute otitis media in children: a systematic meta-analysis. J Pediatr. 2019

Maximum High Doses**

- General Dosing Maximum
  - Suspension (400 mg/5 mL):
    - BID 1600 mg (20 mL/dose)
    - TID 1000 mg (12.5 mL/dose)
  - Tablets/Capsules:
    - BID 1500 mg (3x 500 tablets/dose)
    - TID 1000 mg (2x 500mg tablets/dose) *OR* 875 mg (1 tablet/dose)
  - Chewable tablets:*
    - BID 1500 mg (6 tablets/dose)
    - TID 1000 mg (4 tablets/dose)
- AOM Maximum
  - Suspension (400 mg/5 mL): BID 1000 mg (12.5 mL/dose)
  - Tablets/Capsules: BID 1000 mg (2x 500mg tablets/dose) *OR* 875 mg (1 tablet/dose)
  - Chewable tablets: BID 1000 mg (4 tablets/dose)

**Insurance coverage variable, verify coverage before prescribing.*
*** Select clinical scenarios may justify a maximum of 4,000 mg/dose.*

Dosing Frequency

- TID preferred:*
  - CAP
  - Bacteremia
  - UTI
- BID recommended:
  - AOM
  - Pharyngitis/tonsillitis (daily appropriate)

* TID dosing optimizes time of killing and is generally preferred in severe disease. BID dosing may improve compliance and may be necessary in some social situations.

Available Formulations

- Suspension:*
  - 200 mg/5 mL
  - 400 mg/5 mL
- Capsules:
  - 250 mg
  - 500 mg
- Tablets:
  - 500 mg
  - 875 mg
- Chewable Tablets:
  - 250 mg

* 125 mg/5mL suspension is available, but not carried at CW inpatient pharmacy, as typical doses result in high volumes

Maximum Standard Doses

- General Dosing Maximum
  - Suspension (400 mg/5 mL):
    - BID 1000 mg (12.5 mL/dose)
    - TID 1000 mg (12.5 mL/dose)
  - Tablets/capsules:
    - BID 1000 mg (2x 500mg tablets/dose) *OR* 875 mg (1 tablet/dose)
    - TID 1000 mg (2x 500 mg tab/dose) *OR* 875 mg (1 tablet/dose)
  - Chewable Tablets:*
    - BID 1000 mg (4 tablets/dose)
    - TID 1000 mg (4 tablets/dose)
- Pharyngitis Maximum
  - Suspension (400 mg/5 mL): Daily 1000 mg (12.5 mL/dose)
  - Tablets/Capsules: Daily 1000 mg (2x 500mg tablets/dose)
  - Chewable tablets*: Daily 1000 mg (4 tablets/dose)

**Insurance coverage variable, verify coverage before prescribing.*

Dose rounding has occurred in efforts to optimize dosing and simplify administration for families. Recommendations are intended to provide a framework for decision making, adherence is voluntary.

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