

Pediatric Uncomplicated Acute Pharyngitis Empiric Treatment Algorithm

Concern for Acute Pharyngitis*

***NOTE:** Viruses are the most common cause of acute pharyngitis. *Group A Streptococcus* (GAS) is responsible for only ~20-30% of cases in children.

Age 3 years or older?

No

Incidence of GAS is low. Testing is *not* recommended. Consider only if symptomatic *and* confirmed household contact.

Yes

2 or more of the following?

- Absence of cough
- Presence of tonsillar exudates
- History of fever
- Presence of swollen and tender anterior cervical lymph nodes
- Age < 15 years

No

Consider viral or alternative diagnosis. Antibiotic therapy is *not* warranted

Yes

Testing:

Positive GAS rapid test, PCR, and/or culture?

No

Yes

Refer to page 2 for dosing recommendations

First-line

Amoxicillin or Penicillin V

- GAS resistance has *never* been reported. First-line should be used in ~90% of patients

Second-line

Cephalexin

- For those with mild allergic reactions (e.g. rash) to penicillin

Third-line Treatments

Clindamycin
Azithromycin

Additional Information

- Refer to page 2
- IDSA Guidelines for GAS Pharyngitis¹

Treatment Duration

10 days



Pediatric Acute Pharyngitis Clinical Pearls

Testing and Treatment Considerations

- ▶ **Follow-up testing** after antibiotic treatment is not recommended. Positive results are usually indicative of a streptococcal carrier and further antibiotic treatment is not warranted
- ▶ Over-testing and treatment of acute pharyngitis in adults and children lead to an estimated 7 million courses of unnecessary antibiotics per year²
- ▶ **Cefdinir** is **not** recommended as an alternate treatment for children in IDSA GAS guidelines¹ and is not preferred for treatment of pediatric upper respiratory infections due to (1) poor pharmacokinetic (PK) characteristics; (2) high rates of resistance; and (3) broad but mismatched spectrum of coverage^{3,4,5}
- ▶ 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 a full allergy assessment and testing, consider referral to outpatient allergy.

Pharyngitis Antibiotic Dosing

- ▶ **Amoxicillin** 50 mg/kg oral once daily (max 1000 mg) or 25 mg/kg BID (max 500 mg)
- ▶ **Penicillin V**, oral
 - ▶ Children: 250 mg BID or TID; adolescents and adults: 250 mg QID or 500 mg BID
- ▶ **Benzathine penicillin G**, IM
 - ▶ <27 kg: 600,000 U; ≥27 kg: 1,200,000 U
- ▶ **Cephalexin** 20 mg/kg oral BID (max 500 mg/dose)
- ▶ **Clindamycin** 7 mg/kg oral TID (max 300 mg/dose)
- ▶ **Azithromycin** 12 mg/kg oral once daily (max 500 mg)

References

1. Shulman ST, Bisno AL, Clegg HW, *et al.* Clinical practice guideline for the diagnosis and management of group A streptococcal pharyngitis: 2012 update by the Infectious Diseases Society of America. *Clinical infectious diseases*. 2012 Nov 15;55(10):e86-102.
2. Fleming-Dutra KE, Hersh AL, Shapiro DJ, *et al.* 2016. Prevalence of inappropriate antibiotic prescriptions among US ambulatory care visits, 2010-2011. *Jama*, 315(17), pp.1864-1873.
3. Wattles 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 of *Haemophilus influenzae*, *Streptococcus pneumoniae*, including serotype 19A, and *Moraxella catarrhalis* paediatric isolates from 2005 to 2007 to commonly used antibiotics. *J Antimicrob Chemother* 2009; 63:511–9.
6. Committee on Infectious Diseases, System-based treatment table editors: Kimberlin DW, Barnett ED, Lynfield R, Sawyer MH, *et al.* *Red Book 2021-2024 Report of the Committee on Infectious Diseases*. 32 ed. Itasca, IL: American Academy of Pediatrics; 2021:990-1003.

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