

MQIC Acute Pharyngitis in Children (3 years and older), Adolescents and Adults

The following guideline recommends assessment, diagnosis, and treatment of acute pharyngitis in children (3 years and older), adolescents and adults.

Key Components	Recommendation and Level of Evidence
Etiologies	<p>Viruses: account for about 70% of pharyngitis in children and 90% in adults. Consider COVID-19 in certain clinical settings.</p> <ul style="list-style-type: none"> • Infants & Young children (Respiratory viruses, Herpangina (enterovirus), SARS-CoV-2, Candidiasis) • Older children & adolescent: Epstein-Barr virus (infectious mononucleosis), Respiratory viruses, HIV, Herpangina (enterovirus), HSV, SARS-CoV-2 <p>Group A β-hemolytic <u>Strep</u> (GABHS) accounts for 15-30% in children and 5-10% in adults. Less common etiologies: Groups C and G Strep, Epstein-Barr Virus, <u>N. gonorrhoeae</u>, <u>C. diphtheriae</u>, <u>Archanobacterium haemolyticum</u>, mycoplasma, chlamydia, <u>Fusobacterium necrophorum</u>, Candidiasis.</p>
Diagnosis	<p>Factors favoring GABHS: 5-15 years old, winter or early spring, Strep exposure, fever, sudden onset severe sore throat, severe pain on swallowing, absence of cough, tonsillitis, tonsillar exudate, beefy red swollen uvula, palatal petechiae, tender enlarged anterior cervical nodes, scarlatiniform rash, abdominal pain/nausea especially in boys.</p> <p>Signs and symptoms of Strep vs. non-Strep overlap broadly. Consider a scoring system^{1,2} to exclude low-risk patients. Suspected Strep must be confirmed by Rapid Strep Antigen testing, swabbing both tonsils and posterior pharynx. Negative Rapid Strep testing should be validated by PCR or Strep culture. [Note: In most cases, "Strep culture" is sufficient (GABHS vs. No Strep), rather than complete "Throat culture".]</p> <p>Neck imaging – A soft-tissue radiographic examination of the lateral neck may be useful in the child who is ill appearing, has significant difficulty swallowing, or who will not move their neck. In children with epiglottitis, an abnormal epiglottis is virtually always seen in this view and an enlarged prevertebral space may be visible in those with retropharyngeal abscess, although the sensitivity is variable, and CT may be necessary.</p>
General Management	<p>Indications for antibiotics and potential harms of inappropriate use – Antibiotics generally are indicated for laboratory-documented bacterial pharyngitis. They are not helpful in viral pharyngitis and may be associated with adverse effects including diarrhea, allergy, increased bacterial resistance, unnecessary expense, etc.</p> <p>Pain & Fever management – Management of throat pain and Fever.</p> <p>Safety and efficacy of over-the-counter medications versus complementary and alternative therapies – Discuss with their Provider before use.</p> <p><u>Treat underlying cause as indicated.</u></p> <p>Viral infections – Antiviral therapy (when indicated in conjunction with Infectious disease specialist) particularly in the admitted very ill patients.</p> <p>Bacterial infections – Antimicrobial therapy should be provided for patients with laboratory-documented bacterial pharyngitis/tonsillitis. Antibiotic therapy helps to prevent complications and the spread of infection.</p> <p>Fungal infections – Although oropharyngeal candidiasis usually occurs in infants, it may occur in older children and adolescents (eg, after a course of systemic antibiotics). Topical or systemic antifungal therapy should be provided for patients with oral candidiasis.</p> <p>Decision to treat with antibiotics should be based on test results. If clinical judgment is to initiate treatment prior to culture results, treatment should be discontinued if culture is negative.</p> <p><u>Preferred Treatment for Strep Pharyngitis (must complete full course of one of the following to reduce Rheumatic Fever risk):</u></p> <ul style="list-style-type: none"> • Penicillin V, oral: Children: 250 mg twice daily or 3 times daily for 10 days; Adolescents and Adults: 250 mg 4 times daily or 500 mg twice daily for 10 days • Amoxicillin: 50 mg/kg daily for 10 days (max = 1000 mg); Alternative 25 mg/kg twice daily (max = 500 mg) • Benzathine Penicillin G, IM: <27 kg (60 lb): 600,000 U x 1; \geq 27 kg: 1,200,000 U x 1 <p>If allergic to Penicillin, consider one of the following based on nature/severity of drug allergy and local antibiotic resistance³:</p> <ul style="list-style-type: none"> • Cephalexin 20 mg/kg/dose twice daily for 10 days (max = 500 mg/dose) • Cefadroxil, oral, 30 mg/kg once daily for 10 days (max = 1 g) • Clindamycin, oral, 7 mg/kg/dose 3 times daily for 10 days (max = 300 mg/dose) • Azithromycin 12 mg/kg on day 1 (max = 500 mg/dose); then 6 mg/kg (max = 250 mg/dose) on days 2-5 • Clarithromycin, oral, 7.5 mg/kg/dose twice daily for 10 days (max = 250 mg/dose) <p>Systemic analgesia — For most children and adolescents with acute pharyngitis that limits oral intake, we suggest systemic analgesia rather than medicated topical therapies (eg, lozenges, sprays, oral rinses). We generally suggest acetaminophen or ibuprofen rather than other systemic analgesic agents. We use the</p>

following doses:

- Acetaminophen – 10 to 15 mg/kg orally every four to six hours as needed (maximum single dose: 1 g; maximum daily dose: 75 mg/kg per day up to 4 g/day; maximum of 5 doses per day)
- Ibuprofen – 10 mg/kg orally every six hours as needed (maximum single dose 600 mg; maximum daily dose 40 mg/kg per day up to 2.4 g/day)

Although some studies suggest that ibuprofen is more effective than acetaminophen in reducing throat pain, the additional benefit is small and patients/caregivers may prefer one or the other agent for a variety of reasons. Aspirin should be avoided in children because of the risk of Reye syndrome, as well as its antiplatelet effect.

Therapies of uncertain benefit

- Medicated topical therapies (lozenges, throat sprays, oral rinses). It is generally advised to avoid medicated lozenges or throat sprays for relief of throat pain in children and adolescents. No good quality evidence on the effectiveness of nonprescription lozenges or throat sprays.
- Glucocorticoids: We suggest not using glucocorticoids for the symptomatic relief of acute sore throat in children and adolescents, regardless of etiology. In the context of shared decision-making, other experts suggest that a single low-dose of oral glucocorticoids may be warranted for immune-competent patients ≥5 years with sore throat that is not caused by infectious mononucleosis (potential for developing EBV-associated malignancies). The balance of risks and harms for the individual patient is determined by the severity of pain and preference for rapid relief.
- Alternative therapies — We avoid probiotics or other complementary/alternative therapies (eg, herbal therapies, homeopathic therapies, dietary supplements) in the symptomatic treatment of acute pharyngitis in children and adolescents. They have not been proven to be effective and may be harmful.

Patient or caregiver counseling - Counseling for the patient or caregiver of a patient who has been diagnosed with acute pharyngitis includes:

Expected course of illness – Throat pain caused by infections usually lasts a few days and should improve steadily without worsening.

sore throat lasts between two to seven days among children who received control, placebo, or over-the-counter treatment; sore throat resolved by day 3 in approximately 60 to 70 percent of cases. The duration of symptoms was similar in children with and without group A streptococcal (GAS) tonsillopharyngitis.

Indications for reevaluation – Indications for reevaluation in children and adolescents with acute pharyngitis include:

- Difficulty breathing or drooling (may indicate upper airway obstruction)
- Inability to maintain hydration
- Worsening pain or pain that persists for >3 days without improvement

Counsel Re: contagion, hand washing, hygiene, and need to complete full 10-day antibiotic regimen. Provide symptomatic treatment: rest, non-acidic fluids, soft cold foods, saltwater gargles, lozenges and analgesics (no aspirin < 21 years old).

If asymptomatic after 10-day treatment, there is no need to re-culture or re-treat (except in patients with history of Rheumatic Fever). Testing or empiric treatment of asymptomatic contacts is not recommended.

Clinical Failure	Patients should be seen if failure to respond clinically after 24-48 hours of treatment, or symptoms worsen. Consider: non-adherence, viral etiology in Strep carrier (would explain positive culture), antibiotic resistance, Infectious Mononucleosis (can co-exist with GABHS), peritonsillar or retropharyngeal abscess (requires prompt ENT evaluation).
Strep Complications	Risk of rheumatic fever is greatly reduced if antibiotics started within 9 days after symptoms began (allowing time to check culture results prior to initiating antibiotics). There is no need to test or treat asymptomatic household contacts unless the index case has Rheumatic Fever. Other complications include: poststreptococcal glomerulonephritis, poststreptococcal reactive arthritis, toxic shock syndrome, peritonsillar and retropharyngeal abscesses, Pediatric autoimmune neuropsychiatric disorder associated with group A streptococci (PANDAS), mastoiditis.

¹[Centor Score \(Modified/McIsaac\) for Strep Pharyngitis](#)

²[Michigan Medicine Quality Department Guidelines for Ambulatory Clinical Care: Pharyngitis](#)

³<https://www.cdc.gov/groupastrep/diseases-hcp/strep-throat.html#treatment>

[UpToDate: Acute Pharyngitis in Children and adolescent: Symptomatic treatment](#)

Levels of Evidence for the most significant recommendations: A = randomized controlled trials; B = controlled trials, no randomization; C = observational studies; D = opinion of expert panel

This is based on several sources, including: UpToDate: Acute Pharyngitis in Children and adolescent: Symptomatic treatment. Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2024 Update by the Infectious Diseases Society of America; and the American Heart Association: Prevention of Rheumatic Fever and Diagnosis and Treatment of Acute Streptococcal Pharyngitis (Circulation 2009; 119:1541-1551; www.ahajournals.org/cgi). Individual patient considerations and advances in medical science may supersede or modify these recommendations.

Approved by MQIC Medical Directors Dec. 2003; Nov. 2006; Jan. 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021, 2023

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