



## Michigan Quality Improvement Consortium Guideline

### *Acute Pharyngitis in Children 2 - 18 Years Old*

**The following guideline recommends assessment, diagnosis, and treatment of acute pharyngitis in children and adolescents.**

Eligible Population	Key Components	Recommendation and Level of Evidence
Children 2-18 years old with pharyngitis and / or tonsillitis	Possible Etiologies	<ul style="list-style-type: none"> <li>Viruses account for 70-80% of pharyngitis in children. Group A <math>\beta</math>-hemolytic <u>Strep</u> (GABHS) accounts for 15-30%.</li> <li>Less common etiologies: Groups C and G Strep, Epstein-Barr Virus, <u>N. gonorrhoeae</u>, <u>C. diphtheriae</u>.</li> </ul>
	Diagnosis	<ul style="list-style-type: none"> <li>Factors favoring GABHS: 5-15 years old, winter or early spring, Strep exposure, fever, sudden onset sore throat, severe pain on swallowing, absence of cough, tonsillitis, tonsillar exudate, beefy red swollen uvula, palatal petechiae, tender enlarged anterior cervical nodes, scarletiform rash.</li> <li>Signs and symptoms of Strep vs. non-Strep overlap broadly. Suspected Strep must be confirmed by testing.</li> <li>Can obtain either Strep culture or Rapid Strep Antigen testing, swabbing both tonsils and posterior pharynx. [Note: In most cases, "Strep culture" is all that is needed (GABHS vs. No Strep), rather than complete "Throat culture".]</li> <li>Negative Rapid Strep testing should be validated by Strep culture.</li> </ul>
	Treatment of GABHS	<ul style="list-style-type: none"> <li>Counsel re: contagion, handwashing, hygiene, and need to complete full 10-day antibiotic regimen.</li> <li>Provide symptomatic treatment: rest, fluids, popsicles, soft foods, and analgesics (no aspirin &lt; 21 years old).</li> <li>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.</li> <li>If asymptomatic after 10-day treatment, there is no need to re-culture or re-treat (<u>except</u> in patients with history of Rheumatic Fever).</li> </ul> <p><b>Preferred Treatment for Strep Pharyngitis (all require 10 days to reduce Rheumatic Fever risk [D], except Azithromycin):</b></p> <ul style="list-style-type: none"> <li>Penicillin V: Children: 250 mg BID-TID x 10 days; Adolescents: 250 mg TID-QID or 500 mg BID x 10 days.</li> <li>Amoxicillin: 40 mg/kg/day divided BID-TID x 10 days [A] or 750 mg once daily x 10 days (if compliance is a concern).</li> <li>Benzathine Penicillin G IM x 1: <math>\leq 27</math> kg: 600,000 U; <math>&gt; 27</math> kg: 1.2 million U; or can use Benzathine Pen G 900,000 U / Procaine Pen G 300,000 U (Bicillin C-R 900/300, which may be less painful).</li> <li>If allergic to Penicillin: Erythromycin ethylsuccinate: 40 mg/kg/day divided BID-QID (max. 1 gm/day) x 10 days, or Azithromycin 12 mg/kg/day x 5 days (higher than standard dose, with maximum 500 mg/24 hours).</li> </ul>
	Clinical Failure	<ul style="list-style-type: none"> <li>Child should be seen if failure to respond clinically after 24-48 hours of treatment, or symptoms worsen.</li> <li>Consider: Poor compliance, 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).</li> </ul>
Rheumatic Fever Considerations		<ul style="list-style-type: none"> <li>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).</li> <li>There is no need to test or treat asymptomatic household contacts <u>unless</u> the index case has Rheumatic Fever.</li> </ul>

**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 the Infectious Diseases Society of America: Practice Guidelines for the Diagnosis and Management of GABHS (Clin Inf Dis 2002; 35:113-125; www.idsociety.org) and the American Heart Association: Prevention of Rheumatic Fever and Diagnosis and Treatment of Acute Strep Pharyngitis (Circulation 2009; 119:1541-1551; www.ahajournals.org/cgi). Individual patient considerations and advances in medical science may supersede or modify these recommendations.