Michigan Quality Improvement Consortium Guideline

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	Viruses account for about 70% of pharyngitis in children and 90% in adults. Consider COVID-19 in certain clinical settings. Group A β-hemolytic Strep (GABHS) accounts for 15-30% in children and 5-10% in adults. Less common etiologies: Groups C and G Strep, Epstein-Barr Virus, N. gonorrhoeae, C. diphtheriae, Archanobacterium haemolyticum, mycoplasma, chlamydia, Fusobacterium necrophorum.
Diagnosis	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. 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".]
Treatment of GABHS	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. Counsel re: contagion, hand washing, hygiene, and need to complete full 10-day antibiotic regimen. Provide symptomatic treatment: rest, non-acidic fluids, soft 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. Preferred Treatment for Strep Pharyngitis (**must complete full course of one of the following** to reduce Rheumatic Fever risk **[D]**): ◆ 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; ≥ 27 kg: 1,200,000 U x 1 If allergic to Penicillin, consider one of the following based on nature/severity of drug allergy and local antibiotic resistance[3]: ◆ 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)
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

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: Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2012 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.