

# PRACTICE GUIDANCE FOR JUDICIOUS USE OF ANTIBIOTICS

Striving for better outcomes for individual patients, improved population health, and lower healthcare costs

## PHARYNGITIS (Adults and Children)

### Symptoms and Diagnosis

#### VIRAL PHARYNGITIS

(>95% of cases)

Suggestive of viral etiology:

- Cough
- Nasal congestion and/or discharge
- Hoarseness (laryngitis)
- Oral ulcers
- Coryza
- Ear pain

#### BACTERIAL PHARYNGITIS

(<5% of cases)

Suggestive of bacterial etiology:

- Tonsillar exudate and/or erythema
- Tender anterior cervical lymph nodes
- Absence of cough
- Fever

See back for patients with unusually severe signs and symptoms.

### Treatment

#### SYMPTOMATIC TREATMENT

(effective for viral and bacterial infections)

- Extra rest, hot drinks, oral hydration
- Analgesics/antipyretics, as needed
- Adequate rest
- Gargle with dilute salt water
- Throat lozenges (age-appropriate)
- Avoid cigarette smoke; offer smoking cessation resources, if indicated

Offer positive recommendations using this Symptomatic Prescription Pad: <https://go.usa.gov/xRPXy>

**NOTE:** See back for help when discussing non-antibiotic treatment plan with patients.

#### RAPID STREP SCREENING

Recommended for adults with two or more symptoms listed above and for children with signs and symptoms of strep throat who do not have viral symptoms. The presence of viral symptoms is strongly suggestive of viral pharyngitis and therefore rapid strep testing is NOT indicated.

#### IF NEGATIVE STREP SCREEN, DO NOT PRESCRIBE ANTIBIOTICS

In all children and in select adults (see other side), perform reflex throat culture after negative strep screen and prescribe antibiotics ONLY if positive.

#### FIRST-LINE ANTIBIOTIC THERAPY

- Penicillin V or amoxicillin
- Penicillin G if oral not feasible

#### SECOND-LINE ANTIBIOTIC THERAPY

(for penicillin allergy)

- Azithromycin
- Cephalexin

See other side for dosing information.

## SEVERE SIGNS OR SYMPTOMS

If severe signs/symptoms (drooling, dysphonia, "potato" voice, neck swelling) consider: epiglottitis, peritonsillar abscess, retropharyngeal abscess, submandibular space infections, or primary HIV. Obtain lateral neck x-ray, and consider transfer to the emergency department.

## REFLEX THROAT CULTURE AFTER NEGATIVE RAPID STREP SCREEN INDICATED FOR

- All symptomatic children
- Patients at high-risk for severe disease, e.g., poorly controlled diabetes, immunocompromised, on chronic corticosteroids
- Those in close contact with elderly, infants, or immunocompromised individuals

## BEST PRACTICES FOR COMMUNICATING WITH PATIENTS

- Identify and validate patient's and parent's concerns
- Provide clear recommendations including specific symptom treatment and contingency plan for if symptoms worsen
- Confirm agreement and answer questions
- Provide education about antibiotic use and associated risks, including bacterial resistance and *C. difficile*

## POTENTIAL HARMS ASSOCIATED WITH ANTIBIOTIC USE

- May cause significant side effects, such as antibiotic-associated diarrhea and allergic reactions
- Can increase the risk of carrying a drug-resistant organism which may decrease the effectiveness of antibiotics in the future and make an infection more severe
- Can result in a diarrheal disease caused by *C. difficile* which can be severe and even fatal

Visit CDC's Common Illnesses index at <https://go.usa.gov/xRPXH> for patient education materials.

# Antibiotic Therapy for Strep Pharyngitis

DRUG	DOSE	DURATION
<b>Penicillin V</b>	<b>Child:</b> 250mg PO TID ( $\leq 27$ kg), 500mg PO TID ( $> 27$ kg) <b>Adult:</b> 500mg PO TID	10 days
<b>Amoxicillin</b>	<b>Child:</b> 50mg/kg/day divided in 1-2 doses (max 1000mg/day) <b>Adult:</b> 500mg PO BID	
<b>Penicillin G</b>	<b>Child:</b> 600,000 units IM x 1 ( $\leq 27$ kg), 1.2 million units IM x 1 ( $> 27$ kg) <b>Adult:</b> 1.2 million units IM x 1	
<b>Cephalexin</b>	<b>Child:</b> 40mg/kg/day PO divided in 2 doses (max 1000mg/day) <b>Adult:</b> 500mg PO BID	
<b>Azithromycin</b>	<b>Child:</b> 12mg/kg PO x1 (day 1), then 6mg/kg PO daily (days 2-5) <b>Adult:</b> 500mg PO x1 (day 1), then 250mg PO daily (days 2-5) <b>Adult Alternative:</b> 500mg PO daily x 3 days	3-5 days

## ANTIBIOTIC ALLERGY

Most patients who report antibiotic allergies, particularly penicillin class allergies, do not have true drug allergies. It is important to carefully evaluate reported drug allergies starting with a history before determining whether an alternative agent is indicated.

**NOTE: This guidance is not meant to replace the clinical judgment of the individual provider or establish a standard of care.**

### REFERENCES

1. Harris AM, et al., Appropriate antibiotic use for acute respiratory tract infection in adults: advice for high-value care from the American College of Physicians and the Centers for Disease Control and Prevention. *Ann Int Med* 2016; 164:425.
2. Shulman ST, et al., Clinical Practice Guideline for the Diagnosis and Management of Group A Streptococcal Pharyngitis: 2012 Update by the Infectious Diseases Society of America. *Clin Infect Dis* 2012;cis629.
3. Fine AM, et al., Large-scale validation of the Centor and McIsaac scores to predict group A streptococcal pharyngitis. *Archives of Internal Medicine* 2012;172(11): 847-852.