



# Antibiotic Stewardship Programme in Primary Care

## Guidance Notes — Acute Pharyngitis

### Role of antibiotics:

1. Acute pharyngitis is usually a benign, self-limiting illness with average length of illness lasting for 1 week.
2. Viruses are the most common cause of acute pharyngitis. Presence of clinical features such as conjunctivitis, coryza, cough, diarrhoea, hoarseness, discrete ulcerative stomatitis and viral exanthema strongly suggest a viral etiology.
3. Group A Streptococcus (GAS) is the most common bacterial cause of acute pharyngitis, responsible for 5%-15% of sore throat visits in adults and 20%-30% in children from overseas. GAS pharyngitis is uncommon in children younger than three years.
4. Patients with symptoms suggesting a bacterial cause (e.g. sudden onset of fever, anterior cervical lymphadenopathy, tonsillopharyngeal exudates) should be tested for GAS with a rapid antigen detection test (RADT) and/or throat culture. Negative RADT tests should be backed up by a throat culture in children and adolescents, but not in adults.
5. Alternatively, clinical scoring criteria (modified Centor score <Table 1>) have been developed to help determine the likelihood of streptococcal pharyngitis.
6. Empirical antibiotic treatment could be considered for highly suspected streptococcal cases (i.e. modified Centor score of 4 or 5). Antibiotic may shorten the duration of illness and prevent complications of GAS infection including acute rheumatic fever or suppurative complications (e.g. quinsy, otitis media).

### Practical tips:

**Table 1: Modified Centor score**

Age range (GAS rare under 3)	3 - 14 years	+1			
	15 - 44 years	0			
	≥ 45 years	-1			
Fever (Temp >38° C / 100.4° F)	No Yes	0 +1			
Cough	Present Absent	0 +1			
Exudate or swelling on tonsils	No Yes	0 +1			
Tender/swollen anterior cervical lymph nodes	No Yes	0 +1			
<b>Total score</b>	<b>-1 or 0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4 or 5</b>
Likelihood of acute streptococcal pharyngitis (%)	1 - 2.5	5 - 10	11 - 17	28 - 35	51 - 53

## Recommended antibiotic treatment for acute streptococcal pharyngitis\*:

7. Penicillins and first generation cephalosporins are the first line agents in treating acute streptococcal pharyngitis. GAS resistant to penicillins and other beta-lactams has not been reported. GAS resistant to macrolides (e.g. azithromycin, clarithromycin) is known to be common in Hong Kong.

Drug (Route)	Dosage and Frequency, Adult (Usual)	Dosage and Frequency, Children (Usual)	Duration (Usual)	Remarks
<b>First line</b>				
<b>Amoxicillin (oral)</b>	1000 mg once daily or 500 mg two to three times daily	50 mg/kg (maximum = 1000 mg) once daily or 25 mg/kg (maximum = 500 mg) two to three times daily	5-7 days <sup>^</sup>	
<b>Penicillin V (oral)</b>	500 mg two to four times daily	If ≤ 27 kg: 250 mg two to three times daily If > 27 kg: 500 mg two to four times daily	5-7 days <sup>^</sup>	
<b>Cephalexin (oral)</b>	500 mg two to four times daily	20 mg/kg (maximum = 500 mg) two to four times daily	5-7 days <sup>^</sup>	• Cephalosporins should be avoided in individuals with immediate (anaphylactic) type hypersensitivity to penicillin.
<b>Second line</b>				
<b>Azithromycin (oral)</b>	500 mg once daily	12 mg/kg (maximum = 500 mg) once daily	3 days <sup>^</sup>	• For individuals with penicillin allergy. • Erythromycin resistant isolates are regarded as resistant to clarithromycin and azithromycin as well.
<b>Clarithromycin (oral)</b>	250 mg twice daily	7.5 mg/kg (maximum = 250 mg) twice daily	5 days <sup>^</sup>	• For individuals with penicillin allergy. • Erythromycin resistant isolates are regarded as resistant to clarithromycin and azithromycin as well.

\* Clinicians should tailor-make drug treatment based on clinical judgement. Definitive therapy should be based on microbiological and antibiotic sensitivity results if available.

<sup>^</sup> For patients with positive laboratory results for GAS or certain special reasons (e.g. clinical scarlet fever, household contact of scarlet fever, or known rheumatic heart disease), a 10-day course is recommended for amoxicillin, penicillin V, cephalexin and clarithromycin, to achieve maximal eradication of GAS from the pharynx for primary prevention of acute rheumatic fever, whereas a 5-day course is recommended for azithromycin.

### Disclaimer:

This guidance notes is intended for medical professionals for reference only and is not intended to be prescriptive or a substitute for clinical judgement on management of individual patient. It is not a complete authoritative diagnostic or treatment guide. Medical professionals are recommended to obtain relevant information from other sources, and provide patient management based on clinical judgement.

This guidance notes will be kept updating thereafter. Please visit the website of Centre for Health Protection, Department of Health for the latest update and other information.

The Department of Health gratefully acknowledges the invaluable support and contribution of the Advisory Group on Antibiotic Stewardship in Primary Care in the development of this guidance notes.

