



Abbreviations:
GAS = group A streptococcus
IM = intramuscular

* If impractical to swab, consider empiric antibiotic treatment

Algorithm based on the evidence-based, best practice *New Zealand Guideline for Sore Throat Management (2006)*, produced by The National Heart Foundation of New Zealand and The Cardiac Society of Australia and New Zealand

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* If patient is on benzathine penicillin IM prophylaxis for acute rheumatic fever, and is GAS positive on throat swab, treat in the following way:

- If GAS positive in the first two weeks after IM penicillin injection has been given, treat with a ten day course of erythromycin (see table 1 and guideline)
- If GAS positive in the third and fourth weeks after IM penicillin injection, treat with a ten day course of oral penicillin (see table 1 and guideline).

Table 1: Routine Antibiotics

Standard treatment of Group A Streptococcal positive pharyngitis for patient's first or second case of GAS pharyngitis in a three month period.

ANTIBIOTIC	ROUTE	REGIMEN	DURATION
Penicillin V Give as first choice Give on empty stomach	PO	Children: 20mg/kg/day in 2-3 divided doses Maximum 500mg 3 times daily (250mg 3 times daily for smaller children) Adults: 500mg twice daily	10 days
Erythromycin Ethyl Succinate (EES) Give if allergy to penicillin is reliably documented	PO	Children: 40mg/kg/day in 2-4 divided doses Maximum 1g/day Adults: 400mg twice daily	10 days
Benzathine Penicillin G (BPG) Give if compliance with 10 day regime likely to be a problem	IM	Children <20 kg: 600,000 U once only Adults and children >20 kg: 1,200,000 U once only	Single dose
Amoxicillin Useful alternative as can be given with food, may improve compliance	PO	Weight <30 kg: 750mg once daily Weight >30 kg: 1500mg once daily	10 days

Table 2: Recurrent Antibiotics

Recommendations for treatment of persons with multiple, recurrent, episodes of Group A Streptococcal pharyngitis proven by culture. Use if this is the patient's third (or more) case of GAS pharyngitis in a three month period.

ANTIBIOTIC	REGIMEN	DURATION	RATING [§]
Oral			
Clindamycin	Children: 20-30mg/kg/day in 3 divided doses Adults: 600mg/day in 2-4 divided doses*	10 days 10 days	B-II B-III
Amoxicillin; clavulanic acid	Children: 40mg/kg/day in 3 divided doses**,*** Adults: 500mg twice daily	10 days 10 days	B-II B-III
Parenteral with or without oral			
Benzathine penicillin G	IM dose: See Table 1, or refer to IDSA guidelines#	1 dose	B-II
Benzathine penicillin G with Rifampicin	IM dose: See Table 1, or refer to IDSA guidelines# Rifampicin: 20mg/kg/day orally in 2 divided doses	4 days	

Source: Modified from Table five in the IDSA guidelines: Recommendations for treatment of symptomatic persons with multiple, recurrent, episodes of pharyngitis proven by culture or rapid antigen detection testing, Bisno A et al. 2002.³

Macrolides (e.g. erythromycin) and cephalosporins are not included in the table, because there is insufficient data to support their efficacy in this specific circumstance.

* Adult doses are extrapolated from data for children. Use of this drug for this indication has not been studied in adults. Clindamycin – further references available from: Tanz RR et al. 1991⁴, and Orling AA et al. 1994⁵

** Maximum dose, 750mg of amoxicillin per day

*** Refers to amoxicillin component. Note that clavulanic acid component may vary. Further reference from Kaplan EL et al. 1998⁶

Treatment with benzathine penicillin G is useful for patients in whom compliance with previous courses of oral antimicrobials is in question. Addition of rifampicin to benzathine penicillin G may be beneficial for eradication of streptococci from the pharynx.⁷ It has also been reported that addition of rifampicin (20mg/kg/day, once daily) during the final four days of a ten day course of oral penicillin V may achieve high rates of eradication.⁸ The maximum daily dose of rifampicin is 600mg; rifampicin is relatively contraindicated for pregnant women.

§ Infectious Diseases Society of America – United States Public Health Service grading system for rating recommendations in clinical guidelines⁹:

CATEGORY, GRADE	DEFINITION
Strength of recommendation	
A	Good evidence to support a recommendation for use
B	Moderate evidence to support a recommendation for use
C	Poor evidence to support a recommendation
D	Moderate evidence to support a recommendation against use
E	Good evidence to support a recommendation against use
Quality of evidence	
I	Evidence from ≥ 1 properly randomized, controlled trial
II	Evidence from ≥ 1 well-designed clinical trial, without randomization, from cohort or case-controlled analytic studies (preferably from > 1 centre), from multiple time-series, or from dramatic results of uncontrolled experiments
III	Evidence from opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

References

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