



## **Top Ten Things To Know Prevention of Rheumatic Fever and Diagnosis and Treatment of Strep Throat**

1. The incidence of acute rheumatic fever (ARF) is low in most developed countries, but it is a major cause of CV morbidity and mortality in the developing world.
2. Group A  $\beta$ -hemolytic streptococcal (GAS) pharyngitis (strep throat) is responsible for causing ARF. Strep throat is primarily a disease of children 5-15 years old.
3. Rheumatic fever is rare in children less than 3 years of age in the US. Initial attacks of rheumatic fever are also rare in adults, but recurrences are well documented.
4. Prevention of initial episodes of ARF (primary prevention) requires accurate recognition and proper antibiotic treatment of GAS pharyngitis.
5. Because pharyngitis has several causes (mainly viral), some form of microbiological confirmation such as a throat culture (the criterion standard), is required for the diagnosis of GAS pharyngitis.
6. IM benzathine penicillin G and oral penicillin V are the recommended antibiotics for treatment of GAS, unless there is a history of penicillin allergy. For those patients, acceptable alternatives include a narrow-spectrum oral cephalosporin, oral clindamycin, or various oral macrolides or azalides.
7. Patients who have had an attack of RF are at very high risk of developing recurrences after subsequent GAS pharyngitis.
8. Recurrent attacks of RF can be associated with worsening of the severity of RHD that developed following a first attack, or less frequently with a new onset of RHD in individuals who did not develop cardiac manifestations during the first attack.
9. A GAS infection need not be symptomatic to trigger RF recurrence, and recurrences can occur even when a symptomatic infection is optimally treated. Thus, RF recurrence prevention requires continuous antimicrobial prophylaxis (secondary prevention) rather than recognition and treatment of acute episodes of streptococcal pharyngitis.
10. An injection of 1,200,000 U of intramuscular benzathine penicillin every 4 weeks is the recommended secondary prevention regimen in most circumstances in the US.