

Top Ten Things To Know Diagnosis of Acute Rheumatic Fever in the Era of Doppler Echocardiography

1. Rheumatic heart disease (RHD) is uncommon in high-income regions such as the United States and Europe, but remains endemic in Africa, Asia, and the Pacific, affecting >15 million individuals and causing 233,000 deaths annually.¹
2. Acute rheumatic fever (ARF) incidence is decreasing in all WHO regions except for the Americas, where it appears to be increasing slightly, and the Western Pacific, where it appears to be increasing steadily. The 2011 overall age-adjusted death rate for rheumatic fever/rheumatic HD was 0.9 per 100,000.1
3. Although ARF has declined in Europe and North America in incidence over the past 4 to 6 decades, the disease remains one of the most important causes of cardiovascular morbidity and mortality among socially and economically disadvantaged populations all over the world, especially in the developing countries that are home to the majority of the world's population. Incidence rates in these countries still reach epidemic levels.
4. The goals of this statement are as follows:
 - To review the Jones Criteria used to diagnose Acute Rheumatic Fever in the context of the current epidemiology of the disease.
 - To update those criteria to also take into account recent evidence supporting the use of Doppler echocardiography in the diagnosis of carditis as a major manifestation of acute rheumatic fever.
5. This statement represents the first substantial revision to the Jones Criteria by the American Heart Association since 1992 and the first application of the classification of recommendations and levels of evidence categories developed by the American College of Cardiology/American Heart Association to the Jones Criteria.
6. The results of this revision more closely align these recommendations with other international guidelines by defining low-, moderate-, and high-risk populations, recognizing variability in the clinical presentation for the high-risk populations, and by including Doppler echocardiography as a cardiac diagnostic tool.
7. Major and minor clinical manifestations of ARF are reviewed as well as their variability in localized populations such as Australia.
8. Laboratory evidence for preceding streptococcal infection, degree of rheumatic fever manifestation, and their significance for ARF diagnosis are discussed.
9. The modifications to the Jones criteria in this statement are expected to impact high-risk populations by increasing the proportion of cases identified.
10. Overall, these revisions to the Jones criteria for diagnosis of ARF encompass technological advances in echocardiography and address epidemiological differences in high-risk and low-risk populations..

References

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Gewitz et al.; on behalf of the American Heart Association Committee on Rheumatic Fever, Endocarditis, and Kawasaki Disease of the Council on Cardiovascular Disease in the Young. [Revision of the Jones criteria for the diagnosis of acute rheumatic fever in the era of Doppler echocardiography: a scientific statement from the American Heart Association](#) [published online ahead of print April 23, 2015]. *Circulation*. doi: 10.1161/CIR.000000000000205.