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Letters

TO THE EDITOR

The Persistent Burden of Rheumatic Heart Disease in Africa

As cardiologists, we celebrate revolutionary transcatheter interventions for valvular heart disease in high-income countries.[1] Yet, this progress casts a stark light on a preventable tragedy: millions of African children and young adults continue to suffer from rheumatic heart disease (RHD), a condition virtually eliminated in the developed world.

A recent meta-analysis by Morais and Ferreira,[2] examining more than 40,000 individuals across 21 studies, reveals an alarming pooled RHD prevalence of 25.5 cases per 1,000 population in Africa. This translates to an estimated 11.3 million children living with latent RHD, with 4.9 million having definite RHD and 6.4 million with borderline disease. Strikingly, adults show a higher prevalence (28.2 per 1,000) compared to children (10.3 per 1,000), suggesting many cases progress silently through childhood.[2]

Africa bears a disproportionate share of the global RHD burden. Current estimates indicate that 40.5 million people worldwide live with RHD, resulting in approximately 306,000 deaths annually.[3] Projections suggest that Africa's age-standardized prevalence rate will continue to rise, reaching 559.88 per 100,000 population by 2030. The economic toll is staggering, with RHD treatment costs averaging U.S. $4,710.78 per patient, the highest among all cardiovascular diseases.[4]

Although the adoption of the World Heart Federation echocardiographic criteria has significantly improved RHD detection, with portable echocardiography and task-shifting models showing promise, implementation faces substantial obstacles.

The most frustrating aspect of Africa's RHD crisis is its complete preventability. Primary and secondary prevention with benzathine penicillin, costing $0.20 to $2 per dose, has proven extraordinarily effective in high-income countries. Yet, persistent global shortages of this vital antibiotic, reliant on just 4 manufacturers, represent a critical failure of global health governance. When shortages occur, health care providers are forced to use suboptimal alternatives, potentially contributing to antibiotic resistance.

RHD is not merely a biomedical issue; it is profoundly rooted in the social determinants of health.

The eradication of RHD in Africa demands urgent, coordinated global action. The Pan-African Society of Cardiology's[5] "Seven Key Actions" and WHO's "25 by 25" goal provide a roadmap, emphasizing the need to address the benzathine penicillin shortage, invest in expanded screening, and accelerate innovative diagnostic models. The continued burden of RHD underscores that advanced medical technologies are meaningless without equitable access and social justice. The tools, economic rationale, and moral imperative for prevention and early detection are clear. Bold and sustained action is no longer an option but a necessity to eradicate RHD from the continent.

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The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the Author Center.

REFERENCES

1. So KC, Yap J, Song GY, et al. Epidemiology of valvular heart disease in Asia pacific region. *JACC Asia*. 2025;5(6):718–743. https://doi.org/10.1016/j.jacasi.2025.03.011

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2. Morais H, da Silva Ferreira H. Prevalence of rheumatic heart disease diagnosed according to the echocardiographic criteria of the World Heart Federation in Africa: a systematic review and meta-analysis. *Cardiovasc Revasc Med*. 2024;68:73-78. https://doi.org/10.1016/j.carrev.2024.05.025

3. Hu Y, Tong Z, Huang X, et al. The projections of global and regional rheumatic heart disease burden from 2020 to 2030. *Front Cardiovasc Med*. 2022;9:941917. https://doi.org/10.3389/fcvm.2022.941917

4. Wang S, Petzold M, Cao J, Zhang Y, Wang W. Direct medical costs of hospitalizations for cardiovascular diseases in Shanghai, China: trends and projections. *Medicine (Baltimore)*. 2015;94(20):e837. https://doi.org/10.1097/MD.0000000000000837

5. Mayosi BM, Gamra H, Dangou JM, Kasonde J. 2nd All-Africa Workshop on Rheumatic Fever and Rheumatic Heart Disease participants. Rheumatic heart disease in Africa: the Mosi-o-Tunya call to action. *Lancet Glob Health*. 2014;2(8):e438-e439. https://doi.org/10.1016/S2214-109X(14)70234-7