

Advances and challenges in cardiology

Welcome to the *Singapore Medical Journal* special issue on cardiovascular medicine, the first of two editions dedicated to this important field. Cardiovascular diseases remain the leading cause of death globally.^[1] Despite extensive clinical research and well-established guidelines providing evidence-based practices for clinicians, substantial gaps in care persist. Addressing these gaps is crucial. At its core, managing patients with cardiovascular diseases involves addressing a few fundamental questions: whom to treat, how to treat them and how to accurately assess their condition. This issue compiles articles that investigate the deficiencies in cardiovascular care and propose solutions to bridge these gaps.

Most cardiovascular studies and guidelines are based on Western populations, raising questions about their applicability to Asian patients. This issue includes a review by Soh *et al.*^[2] on ischaemia with no obstructive coronary arteries, focusing on its prevalence and implications in Asian populations. The review aimed to increase awareness of this underrecognised condition for better patient outcomes. Tay *et al.*^[3] conducted a substantial study on heart failure, with an emphasis on patients with mildly reduced ejection fraction. This subgroup remains poorly understood both globally and within Asian populations. In addition, Lin *et al.*^[4] developed a risk prediction score, the Age, Coronary Risk Factors, Sex, Symptoms score, to identify Asian patients at highest risk of major adverse cardiac events when presenting to an emergency department with chest pain and a non-diagnostic 12-lead electrocardiogram (ECG).

The systematic review by Ho *et al.*^[5] discussed the use of wearable technology for cardiac monitoring, a promising approach for managing patients with cryptogenic stroke or embolic stroke of undetermined source. These patients need monitoring for atrial fibrillation, yet the optimal method remains unclear. The authors suggested that wearable technology could be a viable solution in contemporary practice. In addition, the issue also features a fascinating case study on transcatheter aortic valve-in-valve implantation in a patient with severe bioprosthetic aortic valve dysfunction post-Bentall operation.^[6] The evolution of transcatheter aortic valve implantation over the past two decades has led to new applications beyond its original scope, showcasing the structural heart disease field's adaptability and innovation.

Despite technological advances, the importance of thorough clinical assessment and the 12-lead ECG cannot be overstated. Chua *et al.*^[7] provided an insight into managing patients with palpitations in primary care. Palpitations, often a harbinger of more serious conditions, cause significant patient anxiety. This article outlines the practical approaches for primary care

settings. In addition, Tan *et al.*^[8] presented a cross-institutional piece on the diagnostic utility of the 12-lead ECG in patients with rheumatological conditions. Their findings reinforce the notion that traditional tools like ECG remain invaluable in identifying underlying cardiac issues.

This special issue underscores both the advancements and the enduring challenges in cardiovascular medicine. Physicians bear the responsibility of delivering the best care they can provide to their patients, and accepting the status quo is untenable, given the numerous deficiencies that remain. Progress hinges on a thorough examination of the data, or lack thereof. The articles in this issue span cutting-edge technologies to fundamental clinical practices, all aimed at closing gaps in care and enhancing patient outcomes. We trust you will find this issue both insightful and engaging.

Ching-Hui Sia¹, **MBBS**, **Kian-Keong Poh²**, **MBBChir, FACC**

¹Specialty Editor (Cardiology), ²Editor-in-Chief, Singapore Medical Journal, Singapore

E-mail: ching_hui_sia@nuhs.edu.sg

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