Galen Centre for Health and Social Policy

EVENT REPORT

Advisory Board

Responding to the Rising Challenge of Cardio-Renal-Metabolic (CRM) Syndrome in Malaysia

Kuala Lumpur | 13 June 2025

an initiative supported by Boehringer Ingelheim

Introduction

The Galen Centre of Health and Social Policy, with the support of Boehringer Ingelheim, convened an Advisory Board meeting to discuss the rising challenge of cardio-renal-metabolic (also described as cardiovascular-kidney-metabolic) syndrome in Malaysia, especially in the wake of the recent National Health & Morbidity Survey (NHMS) findings.

This meeting discussed and sought feedback on current CRM related data, challenges and unmet needs, and the feasibility of forming a CRM Working Group to encourage interdisciplinary approaches, increase resources, and encourage collaboration. This advisory board meeting was attended by over 24 delegates.

Objective

- To bring increased awareness, understanding and support for cardio-renal-metabolic syndrome among key opinion leaders within the government and non-government stakeholders, including policy makers, edocrinologists, cardiologists, public health specialists and other key experts.

Summary

According to the recent National Health and Morbidity Survey, 3.9 million Malaysians have diabetes, and 1 in 3 individuals has hypertension, with 40% of cases remaining untreated. This presents a significant public health issue and core factors related to cardio-renal-metabolic (CRM) syndrome.

To address the rising prevalence of diabetes and hypertension in Malaysia, public health initiatives should prioritise prevention and early detection. Effective management strategies, such as lifestyle changes and regular health screenings, are crucial for reducing the burden on the healthcare system.

Collaboration among healthcare professionals, policymakers, and community organisations is crucial in addressing the social determinants of health that contribute to these disorders. The annual healthcare costs for non-communicable diseases (NCDs) are projected to reach 100 billion ringgit, with 70% of this spending allocated to disease management. The increasing prevalence of NCDs in Malaysia puts a strain on the healthcare system, necessitating a substantial budget for their management.

Investing in preventive healthcare and early identification can lower the long-term expenses associated with treating advanced NCDs, leading to improved health outcomes and reduced overall costs. The interconnection of NCDs is evident, as 40-50% of heart failure patients also suffer from chronic kidney disease (CKD), with a significant overlap in diabetes cases.

Integrated care approaches are crucial for patients with heart failure, CKD, and diabetes due to the high rate of comorbidities. Management strategies should address the interrelated risk factors and promote lifestyle changes for all three illnesses. **Early detection and management can enhance outcomes and save healthcare costs associated with these disorders.**

The National Health Screening Initiative (NHSI), also known as MyFast, is a programme under the Healthy Malaysia National Agenda (Agenda Nasional Malaysia Sihat) aimed at increasing awareness and uptake of health screenings among Malaysians, particularly those aged 40 and above. It was launched in July 2022 by the Ministry of Health (MOH) to address the low rate of health screening among the public.

By 2035, the National Health Screen Initiative (NHSI) aims to screen 5 million individuals and improve data integration through the MyFast system. **Current national initiatives emphasise the early identification and prevention of non-communicable diseases through comprehensive health screenings, particularly focusing on high-risk populations to improve health outcomes.**

However, fragmented care pathways and overcrowded primary care programmes create implementation fatigue for Family Medicine Specialists (FMS) who must monitor numerous health indicators. This fragmentation hinders effective patient management, leading to missed interventions. Overloaded primary care programmes may limit FMS's ability to effectively address various health indicators, while the lack of integration among health programmes complicates care coordination.

Slow progress in Electronic Medical Records (EMRs) hampers data collection and automated risk grading. Although EMRs are critical for integrating patient data across healthcare systems, their slow advancement limits effective data utilisation. The absence of standardised EMR systems restricts the collection of essential health data for identifying trends in chronic conditions such as cardiometabolic syndrome. Consequently, fragmented data entry methods hinder healthcare practitioners' ability to accurately assess patient risks and conduct timely interventions, compromising automated risk scoring capabilities.

In Malaysia, 30% of children are overweight, with type 2 diabetes becoming increasingly common in primary schools. Childhood obesity is linked to unhealthy diets, such as high consumption of processed foods and sugary drinks, along with a lack of physical activity due to sedentary lifestyles and screen time.

Early intervention programmes that promote nutrition education and encourage active lifestyles are crucial for combating childhood obesity and related health issues. Moreover, metabolic-associated fatty liver disease (MAFLD) affects 8.5 million adult Malaysians, with 62% of liver clinic patients diagnosed with fatty liver disease, contributing to liver cancer cases.

MAFLD is a significant public health concern, associated with rising obesity rates and unhealthy conditions. The illness often goes undiagnosed until advanced stages, increasing the risk of serious consequences such as cirrhosis and liver cancer. Successful management of MAFLD requires early detection and intervention techniques, including lifestyle changes and regular testing, to prevent progression to severe liver disease.

There is a shortage of healthcare resources, with only one dietitian available per three hospitals, and only 40% of eligible patients using SGLT2 inhibitors in specialist clinics. The limited availability of dietitians hinders effective nutritional management for chronic conditions, resulting in poorer health outcomes.

The underutilisation of SGLT2 inhibitors may indicate a lack of awareness or access among healthcare providers and patients, potentially leading to complications related to diabetes as well as cardiovascular and renal issues. **Addressing these shortages and expanding access to nutritional support and effective medications is crucial for improving patient care and reducing the burden of chronic illness on the healthcare system.**

CRM Disease Interconnectedness

- Cardio-renal-metabolic (CRM) syndrome terminology and usage has been recognized as relatively new (approximately 3 years old) but gaining acceptance among specialists due to therapeutic advances
- **CRM terminology has emerged as a comprehensive framework that integrates the management of cardiovascular, renal, and metabolic diseases,** reflecting the interconnected nature of these conditions.

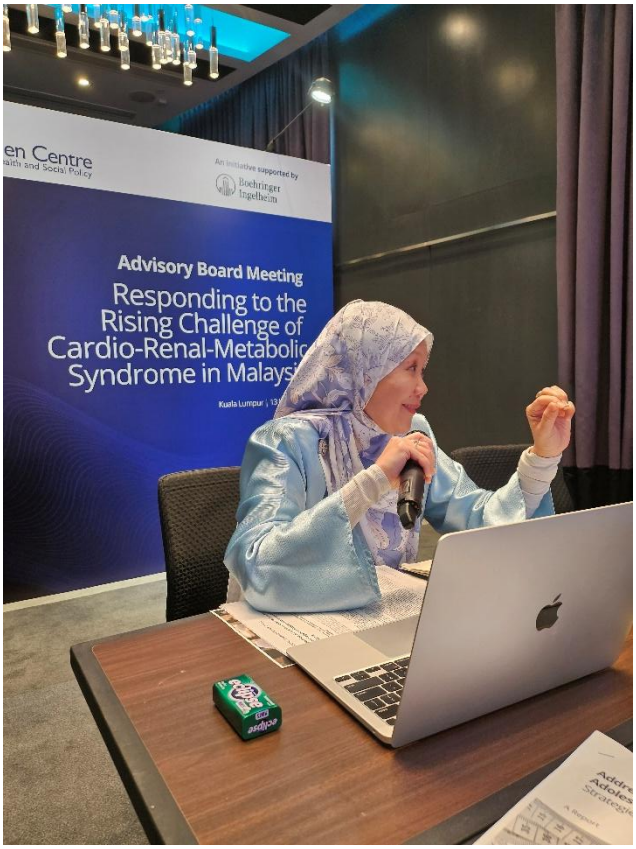
The acceptance of CRM among specialists has been bolstered by recent therapeutic advances, such as the introduction of medications that provide benefits across multiple disease areas, enhancing patient outcomes.

- Ongoing education and collaboration among healthcare professionals are essential to ensure a unified approach to CRM, facilitating better patient management and improved health outcomes.
- **Disease overlaps statistics: 40-50% of heart failure patients have CKD, most also have type 2 diabetes; 44.7% of CVD patients have type 2 diabetes**
- 40-50% of patients with heart failure also have chronic kidney disease (CKD), indicating a significant overlap between these conditions.
- A substantial proportion of heart failure patients with CKD also present with type 2 diabetes, highlighting the interconnectedness of these metabolic disorders.
- 44.7% of patients with cardiovascular disease (CVD) are diagnosed with type 2 diabetes, emphasizing the need for integrated management strategies for these comorbidities.
- **Renal replacement therapy burden:** 60,000 people currently on dialysis (updated from 37,000 in 2016), with 67% in public sector costing 1.1-2 billion ringgit
- Current renal replacement therapy burden has increased significantly, with 60,000 individuals on dialysis as of 2023, up from 37,000 in 2016.
- **Approximately 67% of dialysis patients receive treatment in the public sector, placing a substantial financial strain on the healthcare system.**
- The estimated annual cost for managing these patients ranges between 1.1 to 2 billion ringgit, highlighting the urgent need for effective prevention and management strategies.

Current Initiatives and Gaps

- **Sharing of experience regarding CareMe Clinic**, at University Malaya Medical Centre (UMMC), a pilot clinic focused on integrating care for patients with type 2 diabetes (T2D).
- The clinic's primary goal is to improve patient outcomes by implementing a patient-centred, guideline-directed medical therapy approach.
- It's a collaborative effort with multidisciplinary weekly meetings between cardiology, endocrinology, and nephrology departments, addressing the common cardio-renal complications associated with T2D, particularly high-risk CRM patients.
- **Need for integration of care pathways to ensure comprehensive treatment plans that address the interconnectedness of cardiovascular, renal, and metabolic conditions**.
- Evaluation of patient outcomes through a research-based approach, comparing results of patients managed in a multidisciplinary setting versus traditional siloed care.
- National Health Screening Initiative (NHSI) targeting 5 million individuals by 2035, with data feeding into MyFast system
- The National Health Screening Initiative (NHSI) aims to screen 5 million individuals by 2035, focusing on early detection of non-communicable diseases.
- Data collected from NHSI screenings will be integrated into the MyFast system, allowing for better tracking and management of health metrics.

- The initiative emphasizes a multidisciplinary approach, involving collaboration among healthcare providers to improve health outcomes and promote preventive care.
- SGLT2 inhibitor access previously blocked at Ministry of Finance level despite strong evidence, now becoming available through generic options
- **SGLT2 inhibitors have shown significant benefits in reducing cardiovascular and renal risks in patients with diabetes and chronic kidney disease.**
- The initial rejection at the Ministry of Finance level was due to concerns over budget allocation and the high cost of branded medications.
- With the introduction of generic versions, access to SGLT2 inhibitors is expected to improve, allowing more patients to benefit from these therapies at a lower cost.



Healthcare System Challenges

- **There is fragmented care pathways and siloed management across specialties, with limited primary care integration, both in the public and private healthcare sectors.**
- Fragmented care pathways can lead to poor patient outcomes due to lack of coordinated treatment plans across specialties.
- Siloed management often results in healthcare providers focusing on individual conditions rather than the interconnectedness of comorbidities, hindering comprehensive patient care.
- Limited integration of primary care into specialty services can prevent early intervention and effective management of chronic diseases, exacerbating health issues for patients.

There is primary care programme overload: FMS doctors managing over two dozen different programmes and indicators, causing implementation fatigue.

- **Primary care providers are often overwhelmed by the sheer number of programmes and indicators they are required to manage, leading to implementation fatigue.**
- This overload can result in decreased quality of care as physicians struggle to balance multiple responsibilities and prioritize patient needs.
- **Streamlining programmes and focusing on a few key indicators could enhance efficiency and improve patient outcomes in primary care settings.**

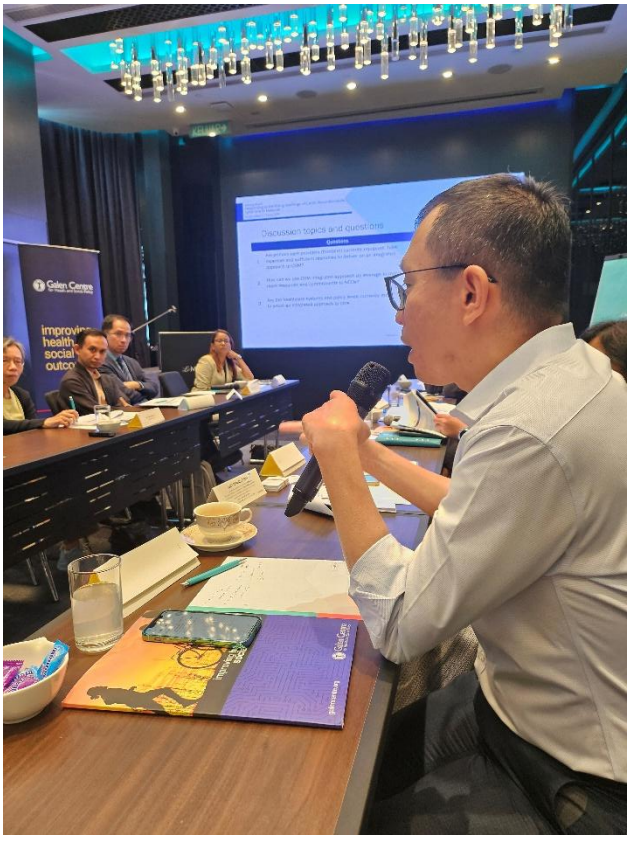
- Electronic Medical Records (EMR) project progressing but slowly, hindering integrated data collection and automated risk scoring
- The EMR project is experiencing delays in implementation, which affects the timely integration of patient data across healthcare facilities.
- Limited access to automated risk scoring tools hampers the ability to identify and manage patients with cardiometabolic conditions effectively.
- The lack of a unified EMR system results in fragmented data collection, preventing comprehensive analysis and coordination of care for patients with chronic diseases.

Prevention and Education Gap

- **Childhood obesity crisis:** Type 2 diabetes now appearing in primary school children, with 30% of Malaysians overweight.

Childhood obesity is a growing concern in Malaysia, with alarming rates of overweight children leading to early onset of type 2 diabetes.

- Approximately 30% of Malaysian children are classified as overweight, significantly increasing their risk for metabolic diseases.
- Interventions focusing on nutrition education, physical activity promotion, and family involvement are crucial to combat this crisis and prevent long-term health complications.
- **SEGAK programme data underutilization:** Ministry of Education collects annual BMI and fitness data from all public-school students but lacks follow-up analysis
- The National Physical Fitness Standard (SEGAK) programme collects annual BMI and fitness data from public school students across Malaysia.
- Despite the collection of this data, there is a significant lack of follow-up analysis to assess trends and health outcomes.
- The underutilization of this data hinders effective public health interventions and policy-making aimed at addressing childhood obesity and related health issues.
- **Health literacy deficit:** 1 in 3 adults have low health literacy, contributing to poor lifestyle choices and late presentation
- Low health literacy is linked to an increased risk of chronic diseases, as individuals may struggle to understand health information and make informed decisions about their health.
- Adults with low health literacy are less likely to engage in preventive health behaviours, such as regular screenings and vaccinations, leading to late presentations of diseases.
- Improving health literacy through targeted education and community programmes can empower individuals to make healthier lifestyle choices and seek timely medical care.



Metabolic Associated Fatty Liver Disease (MAFLD)

- **MAFLD prevalence surge:** 8.5 million Malaysian adults affected, with 62% of liver clinic patients having fatty liver disease.

MAFLD is increasingly recognized as a significant public health issue in Malaysia, with a notable rise in prevalence among adults.

- The surge in cases is attributed to lifestyle factors such as poor diet, lack of physical activity, and rising obesity rates, which contribute to metabolic syndrome.
- Early detection and intervention are crucial, as many individuals with MAFLD are asymptomatic until advanced liver disease develops, highlighting the need for increased awareness and screening efforts.
- **Liver cancer trend shift:** Fatty liver now rivalling hepatitis B as leading cause of liver cancer, increasing from 16% (2006-2009) to 34% (2011-2024)
- Fatty liver disease is becoming a significant public health concern, with its prevalence increasing dramatically among the population.
- The rise in fatty liver as a leading cause of liver cancer highlights the need for improved screening and early intervention strategies to manage metabolic health.
- Public awareness and education regarding the risks associated with fatty liver disease are crucial to prevent its progression to more severe liver conditions, including cancer.
- **Diabetes clinic burden:** Over 70% of diabetes patients have fatty liver, yet most lack symptoms until advanced stages
- Over 70% of diabetes patients are found to have fatty liver disease, which significantly increases their risk for liver-related complications.
- Many patients remain asymptomatic until the disease progresses to advanced stages, making early detection challenging.
- **The high prevalence of fatty liver among diabetes patients underscores the need for routine screening and integrated management strategies in diabetes care.**

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Resource and Funding Constraints

- **Manpower shortage:** One dietitian serving three hospitals, limited nephrology liaison clinics (17 nationwide), inadequate specialist coverage in rural areas
- Manpower shortage in healthcare leads to inadequate patient care and management of chronic diseases.
- The limited number of dietitians and nephrology liaison clinics hampers effective treatment and prevention strategies for conditions like diabetes and kidney disease.
- Rural areas face significant challenges in accessing specialized healthcare services, resulting in poorer health outcomes for residents.
- **SGLT2 utilization rates:** Only 40% of indicated patients receive SGLT2 inhibitors in specialist clinics, estimated 15% in primary care.

Only 40% of patients who should be receiving SGLT2 inhibitors in specialist clinics are actually prescribed them.

- In primary care settings, the utilization rate of SGLT2 inhibitors is estimated to be around 15%.

- Barriers to SGLT2 utilization include lack of awareness, limited access to specialists, and insufficient training among primary care providers.
- Prevention programme funding: health education programme facing funding shortages despite Ministry of Education curriculum integration
- Programme aims to promote health education and lifestyle changes among students.
- Despite integration into the Ministry of Education curriculum, the programme struggles to secure adequate funding for implementation.
- Funding shortages hinder the programme's ability to effectively reach and educate students on health and wellness.

For Action

Galen Centre

- Send email to all participants to confirm forming a CRM working group
- Coordinate development of **consensus statement/position paper on CRM** for Malaysia
- Explore collaboration with relevant medical societies to establish CRM subcommittees

Dr. Jayakantha (UMMC)

- Share research results from CareMe Clinic pilot project in coming months
- Provide DCRM guideline document for potential localization to Malaysian context. DCRM, or Diabetes, Cardiorenal, and Metabolic diseases, refers to the interconnected nature of these conditions, where individuals often experience multiple diseases simultaneously.

Prof. Chan Wah Keong (UMMC)

- Continue work on health economic modelling for CRM interventions in Malaysia
- Explore validation of international metabolic risk scores for Malaysian population

Dr. Sunita and other nephrology experts

- Investigate revival of national screening database combining multiple healthcare providers' data
- Follow up on combining screening efforts between National Kidney Foundation, NHSI, and other organizations

Dr. Ma Soot Keng (National Heart Association)

- Continue incorporating CRM sessions into annual scientific congress targeting 2,500-3,000 delegates including 700-800 GPs
- Continue incorporating CRM sessions into annual scientific congress targeting 2,500-3,000 delegates including 700-800 GPs
- Enhance awareness and understanding of cardiometabolic risks and management among primary care physicians through dedicated sessions.
- Facilitate networking and collaboration opportunities among healthcare professionals to share best practices and experiences in managing CRM conditions.
- Utilize feedback from participants to continuously improve the content and relevance of CRM sessions in future congresses.

- Explore potential educational funding partnerships for CRM advocacy

MYOS (Malaysian Association for the Study of Obesity)

- Collaborate with World Obesity Federation to conduct SCOPE certification programme in Malaysia
- Work with Dr. Feisul (Ministry of Health, currently Perak State Health Director) on conducting obesity management training for healthcare providers