Day 1: 28 October 2023, Saturday; 9:00 AM to 5:30 PM



8:00-9:00 AM

## On-site Registration (Morning Workshops) Exhibition/Poster Viewing

### Pre-Symposium Workshops

### Workshop 1:

Social Prescribing for Stress Management in CVD Prevention – Mindfulness and Art Expression Ms Constance Chan, Principal Medical Social Worker, Changi General Hospital, Singapore; Ms Clarice Ng, Senior Medical Social Worker, Changi General Hospital, Singapore

Stress management in cardiovascular disease (CVD) prevention is cardinal in healthcare. It is required to help cardiac survivors to manage their health beyond the hospital visits. Social prescribing refers to looking at the person holistically in the biological, psychological, social and spiritual aspects, which are important aspects of well-being.

The above topic draws attention to some frameworks that are being used in the social prescribing approach, which could help to address some factors that lead to the cardiac survivor's stress. It will also provide insights on various potential options of support that the individual or family could develop alongside medical therapies that are already helping to stabilise their condition. This could range from counselling support, adopting a mindful approach to life and taking proactive steps to live with daily life stressors.

### Workshop 2:

### Exercise Is Medicine: How to Start a Patient on an Active Life

Clin Asst Prof Ivy Lim, Chief & Senior Consultant, Singapore Sports Medicine Centre, Changi General Hospital, Singapore

The workshop aims to impart the basic knowledge of physical activity benefits and guidelines, as well as the skills for managing patients with conditions that put them at risk of cardiac events (including hypertension, dyslipidaemia and diabetes mellitus), using physical activity. Participants will learn how to create specific physical activity prescriptions for patients, taking into account their risk, medications and complications, as part of a holistic management plan for these patients.

9:00-10:30 AM

#### Workshop 3:

### East Meets West: TCM-Guided Diet Meets Heart Healthy Diet for Cardiac Patients

Ms Cherie Tong, Head of Dietetics, Sengkang General Hospital, Singapore; Dr Eleanor Chua, Vice Head, Centre of Continuing Education, Singapore College of Traditional Chinese Medicine; Mr Lim Yi Kai, Dietitian, Singapore General Hospital; Ms Fionn Chua, Senior Dietitian, Changi General Hospital; Ms Natalie Yeo, Dietitian, Singapore Heart Foundation; Ms Candy Goh, Dietitian, Parkway MediCentre Singapore; Mr Bryan Lee Jui Yang, Dietitian, Tan Tock Seng Hospital, Singapore

Are you curious how TCM can help to improve cardiac health? Do you want to find out the latest evidence on therapeutic diets and functional foods? Come and join this interactive workshop to learn from both TCM practitioners and dietitians. Through case study discussion, you will learn how to marry knowledge from both East and West to improve the cardiovascular health of your patients.

#### Workshop 4:

### Enhanced Recovery After Cardiac Surgery - Journey of Prehabilitation to Rehabilitation

Assoc Prof Ti Lian Kah, Senior Consultant and Director of Cardiac Anaesthesia; Dr Geetha Kayambu, PhD, Principal Physiotherapist; Mr Qamaruzaman Syed Gani, Senior Physiotherapist; Asst Prof Wong Su Ren, PhD, Principal Occupational Therapist; Ms Tricia Teo, Senior Dietitian; Adj Assoc Prof Ramanathan Kollengode, Cardiothoracic Intensivist, National University Hospital, Singapore

This workshop brings together experts in the field to provide updates on the role of preoperative exercise, nutrition, occupational therapy and perioperative care for patients preparing for cardiac surgery. This innovative approach minimises modifiable risk factors to thereby achieve better outcomes for patients. Experts will share pertinent work processes for the follow-through care of rehabilitation in the intensive care unit, to improve patient outcomes after cardiac surgery.

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10:30-10:50 AM	Coffee Break/Exhibition/Poster Viewing On-site Registration for Plenary Session	
10:50-11:20 AM	Opening Ceremony Welcome Address Clin Asst Prof Huang Zijuan, SPCRS 2023 Organising Chair	
	Speech Guest of Honour: Prof Kenneth Mak, Director-General of Health, Ministry of Health	
	Opening Performance Singapore Heart Foundation's Healthy Heart Support Group	
11:20-11:40 AM	Keynote Address 1 Cardiac Rehab for Peak Performance: Taking Your Patient from the ICU to the Marathon Dr Aashish Contractor, Director of Rehabilitation and Sports Medicine, Sir H.N. Reliance Foundation Hospital, India  One of the most important goals of cardiac rehab is helping patients to recover their functional capacity. We often term it as, 'getting back to where you were before the event.' However, oftentimes, that is a very low threshold in	
	absolute terms, and our aim should be to get them better than before. This talk explores how we can get our patients to improve their physical capacity, such that they are capable of participating in a marathon, should they wish to, and with no contraindications. It will review the stepwise approach required, as well as the precautions needed along the way.	
11:40-11:55 AM	Exercise Prescription In Primary Prevention Of Cardiovascular Disease Asst Prof Yeo Tee Joo, Director, Cardiac Rehabilitation Unit, National University Heart Centre, Singapore  With cardiovascular disease (CVD) being the top non-communicable disease worldwide, many healthcare systems are struggling with the burden of this epidemic of heart disease. It is even more vital now to shift the needle even earlier and focus on primary prevention of CVD. By educating patients and healthcare providers alike on the importance of physical activity, the downstream effects of improving overall cardiovascular health could be immeasurable. This talk covers local and international recommendations on physical activity for the general population, as well as the myriad of benefits for the heart and beyond.	
11:55 AM-12:05 PM	Panel Discussion/Q&A Session	
12:05–1:05 PM	Lunch Exhibition/Poster Viewing	
1:05–1:25 PM	Keynote Address 2 Personalising Digital Interventions for Behavioural Change in CVD Primary Prevention Dr Praveen Deorani, Senior Data Scientist, Office of Healthcare Transformation, Ministry of Health Singapore  The burden of chronic diseases in Singapore is rising rapidly. Investment in clinical care has led to improvements, but for these to be really effective, patients must participate actively in their own care. However, the patients are often not motivated or informed enough to take ownership of their health to make lifestyle changes that would help manage their disease and/or slow disease progression. While emerging mHealth and monitoring solutions are showing great promise, too much data and too many events are produced to allow productive exploitation. Therefore, to efficiently enable patient self-empowerment, much of this data need to be automatically translated into actionable feedback for the patient, in the form of reminders, encouragement, and coaching at teachable moments. Rule-based systems, data science and Al now offer the potential to do this with self-learning and transfer-learning, both within and across patients.	

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1:25-1:45 PM	A Modern Approach to Treating Dyslipidaemia Dr Yong Quek Wei, Senior Consultant Cardiologist, Tan Tock Seng Hospital, Singapore	
	Lipid disorders have severe implications for cardiovascular risk and overall health. Recent advances have necessitated an updated approach to these disorders. A holistic approach should be based on the primary lipid disturbance, identified on a routine lipid panel, as a practical starting point. Most patients with dyslipidaemia have polygenic predisposition, often in the context of secondary factors such as obesity and type 2 diabetes. With regard to cardiovascular disease, elevated LDL cholesterol is essentially causal, and clinical practice guidelines worldwide have recommended lower treatment thresholds and targets for this variable. Furthermore, recent studies have established elevated triglycerides as a cardiovascular risk factor, whereas depressed HDL cholesterol now appears less contributory. An updated approach to diagnosis and risk assessment may include measurement of secondary lipid variables such as apoB and lipoprotein(a), together with selective use of genetic testing, to diagnose rare monogenic dyslipidaemias such as familial hypercholesterolaemia.	
1:45-2:05 PM	A Novel Dietary Approach in CVD Prevention – The Asian Mediterranean Diet Assoc Prof Verena Tan, Health and Social Sciences Cluster, Program Lead, Dietetics and Nutrition, Singapore Institute of Technology	
	The Mediterranean diet has been shown to decrease the risk of cardiovascular disease, metabolic syndrome, cancer and overall mortality. However, some of the food items used in traditional Mediterranean diets may not be readily available or frequently used in local cuisines, making it difficult to adopt the healthful eating pattern of this diet among Southeast Asians. This talk will first define what constitutes a traditional Mediterranean diet, by analysing the nutrient profile and identifying the active ingredients present. The talk will also cover how Asian ingredients with similar active ingredients as the traditional Mediterranean diet can be identified, and how an Asian "Mediterranean diet" menu can be developed.	
2:05-2:25 PM	Panel Discussion/Q&A Session	
2:25-2:45 PM	Keynote Address 3 A Personalised Dietary Approach to Obesity Treatment: Focus on Healthy Ketogenic Diet Dr Lim Su Lin, Chief Dietitian, Head (Therapeutics), Allied Health & Pharmacy, National University Hospital, Singapore  The prevalence of obesity and overweight in Singapore is rising and associated with many longer-term health problems. Lifestyle interventions are fundamental in therapeutic management of overweight and obesity, but these are challenging in food-haven Singapore. This presentation shares effective weight-management diet strategies, which include the Healthy Ketogenic Diet developed by Dr Lim, and practical tips and techniques to help patients change their eating habits and sustain the heathier lifestyle over a lifetime. Patients and participants in the programme have lost 10 to 27 kg in 4 months, bringing many of their metabolic conditions such as diabetes, hypertension, non-alcoholic fatty liver disease and hyperlipidaemia under control, as well as reducing their dosages of chronic medications.	
2:45-3:00 PM	Updates In Anti-obesity Pharmacotherapy for Patients with ASCVD or Increased Cardiac Risk Dr Lee Phong Ching, Senior Consultant, Head of Obesity Centre, Singapore General Hospital	
	The rising prevalence of obesity leads to a corresponding increase in obesity-related complications such as type 2 diabetes and coronary heart disease. Pharmacotherapy is an important adjunct to lifestyle management in the management of obesity. Medications may be considered in patients with BMI >30 kg/m² or BMI >27 kg/m² who have obesity-related complications.  The choice of anti-obesity medication depends on several factors, such as desired weight loss, cost, mode of administration, contraindications, side effects and cardiovascular safety. In recent years, newer glucagon-like	
	peptide-1 receptor agonists have been developed with easier administration and greater weight loss.  In this talk, we will discuss the latest data on some of these agents and how they may be used to treat obesity in patients with atherosclerotic cardiovascular disease (ASCVD) or at increased cardiac risk.	

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	End of Day 1 Symposium	
5:00-5:20 PM	Panel Discussion/Q&A Session	
4:40-5:00 PM	Dr Chan Ngai Yin, Chief of Service and Consultant Physician, Princess Margaret Hospital and North Lantau Hospital, Hong Kong  A major bottleneck in delivering cost-effective and evidence-based cardiac rehabilitation therapy to indicated patients is still the low uptake rate, which is commonly below 20%; causes for this have been identified in different parts of the healthcare system and service delivery workflow. Cardiac rehabilitation programs have evolved into different formats with increasing flexibility – notably, telecardiac rehabilitation programs have been adopted rapidly worldwide during the COVID-19 pandemic. Furthermore, community-based cardiac rehabilitation programs can be a viable option for low-risk patients with cardiovascular diseases. Together with the traditional centre-based cardiac rehabilitation programs, increasing program multiplicity is an effective strategy to enhance the update of cardiac rehabilitation therapy.	
4:20-4:40 PM	Cardio-Oncology Rehabilitation Dr Aashish Contractor, Director of Rehabilitation and Sports Medicine, Sir H.N. Reliance Foundation Hospital, India  Cardiovascular disease (CVD) is the leading cause of death worldwide, while cancer is fast catching up. CVD is also the most important cause of death among cancer survivors. Drugs used to treat cancer also have cardio-toxic effects.  Cardio-oncology rehabilitation aims to reduce the risk of CVD and improve cardiac health in cancer patients by providing risk reduction and cardiac rehabilitation, combined with cancer site-specific physical rehabilitation. Like cardiac rehab, it's a multidisciplinary program involving a team of specialists.  The resources needed to implement the program are largely the same as that of cardiac rehab, including infrastructure and staff. This talk provides an overview of how these programs can be implemented in a practical manner in a cardiac rehab setting.  Programme Multiplicity for Enhancing the Uptake of Cardiac Rehabilitation	
4:00-4:20 PM	Keynote Address 4 Personalised Pathways To Heart Health: The Potential of Digital/mHealth Interventions In Cardiovascular Disease Prevention Prof Clara Chow, Academic Director, Westmead Applied Research Centre, University of Sydney, Australia  Cardiovascular disease remains the leading cause of global mortality and morbidity. The reasons for this are multifactorial, with barriers at the individual, health care, larger system and environment levels. Implementation of the evidence on how to prevent heart disease and stroke is far from universal, and the inequities can seem unbelievable. Some of the barriers are surprisingly consistent globally; for example, treatment inertia. The solutions are not straightforward, but there are many opportunities to innovate and improve. This presentation discusses the current evidence with respect to innovation in secondary prevention, post-hospital discharge care and community-based care. It also presents examples of new service models that have been implemented, as well as examples of future innovation in models of care, beyond digital replacement of usual care.	
3:30-4:00 PM	Coffee Break/Exhibition/Poster Viewing	
3:15-3:30 PM	Panel Discussion/Q&A Session	
3:00-3:15 PM	the main pillars for obesity therapy. However, it is never an easy task to get sedentary obese patients to start exercising. How can we partner with our patients to get them to move for better health? How can we get patients to exercise safely? In this session, we shall discuss tips and exercise snacks to shape patients into the best health of their lives.	
3:00-3:15 PM	Exercise Tips for Obese Patients with ASCVD  Dr Victor Tan, Associate Consultant, Singapore Sport & Exercise Medicine Centre, Changi General Hospital  Apart from the newer pharmacotherapy agents such as SGLT2 inhibitors, exercise and dieting are still considered	

Day 2: 29 October 2023, Sunday; 8:30 AM to 1:00 PM



8:30-9:15 AM	Oral Presentation & Judging	
9:15-9:45 AM	On-site Registration Exhibition/Poster Viewing	
	Track A	Track B
9:45-10:00 AM	Prehabilitation in Frail Patients Undergoing Cardiac Surgery in National Heart Centre Singapore Mr Muhammad Isa bin Mohd Musa, Physiotherapist, National Heart Centre Singapore; Ms Yeo Wee Ting, Physiotherapist, National Heart Centre Singapore  With the ageing population on the rise and with the advances in technology, older and increasingly frail patients are being referred to higher-risk procedures such as cardiac surgery. Studies have shown that these groups of individuals are more likely to require a longer time to regain their premorbid function after a major surgery. Recent evidence has shown that prehabilitation benefited this population by providing better postoperative outcomes such as reduced length of hospital stay.  At the National Heart Centre Singapore, we piloted a prehabilitation program targeting physically frail patients undergoing cardiac surgery. We observed that prehabilitation in this population is safe and feasible. Our results showed that with prehabilitation, there was a reduction in average length of hospital stay and need for rehabilitation in community hospital after cardiac	Cardiac Rehabilitation for Heart Failure Patients Adj Assoc Prof Raymond Wong, Senior Consultant, National University Heart Centre Singapore  Heart failure (HF) is a debilitating condition that significantly affects the functional capacity and general well-being of patients. Structured cardiac rehabilitation programmes have been shown to improve all domains of quality of life, particularly physical functioning, thus enabling HF patients to better self-care and integrate into the community at large. In this lecture, evidence associating HF and mechanisms for physical intolerance such as frailty and sarcopenia will be critically assessed; landmark randomised controlled trials such as ACTION-HF and ExTraMATCH II will be examined, and major guidelines will be discussed. Finally, a case-based approach to cardiac rehabilitation in HF will be presented.
	Social Prescribing for Stress Management	Integrated Cardiopulmonary Rehabilitation
	Ms Constance Chan, Principal Medical Social Worker, Changi General Hospital, Singapore  Stress management is required to help cardiac survivors	Programme – Using Qi Gong Dr Sa'ari Bin Mohamad Yatim, Deputy Head of Rehabilitation Medicine Services, Hospital Sultan Idris Shah Serdang, Malaysia
10:00-10:15 AM	to manage their health beyond the hospital visits. Social prescribing considers the patient's well-being in terms of not just the physical aspect but the psychological, social and spiritual aspects as well.  We will explore the resources available for stress	Exercise rehabilitation could have a major impact on cardiac survivors and patients with chronic pulmonary disease. Physical deconditioning and reduced exercise capacity could be implicated in the general symptomatology. Cardiopulmonary rehabilitation is a cornerstone of the management of people affected by chronic pulmonary.

management, from counselling support to adopting a

mindful approach to life and taking proactive steps to

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Exercise rehabilitation could have a major impact on cardiac survivors and patients with chronic pulmonary disease. Physical deconditioning and reduced exercise capacity could be implicated in the general symptomatology. Cardiopulmonary rehabilitation is a cornerstone of the management of people affected by chronic pulmonary disease and people with cardiovascular disease. Qi Gong originates from Chinese history and philosophy. It combines meditation, respiratory regulation and slow physical activity, with or without visual imagery, to harmonise the body, spirit and mind, and has been found to result in an improvement in lung function, exercise capacity and patients' quality of life. Therefore well-integrated cardiac rehabilitation, pulmonary rehabilitation and Qi Gong will contribute to improved outcomes and quality of life of cardiopulmonary survivors.

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Self-Regulation Training to Improve
Heart Failure Self-Care
Dr. locelyn Chew Alice Lee Centre for Nurs

Leveraging Personal Motivations and

Dr Jocelyn Chew, Alice Lee Centre for Nursing Studies, Yong Loo Lin School of Medicine, National University of Singapore

10:15-10:30 AM

Heart failure self-care is essential in the prevention and management of complications. However, adherence to such protective behaviours is often poor due to various individual and socio-ecological factors. Central to these factors are the concepts of motivation and selfregulation, which play a role in initiating and sustaining behaviour change. Thus far, efforts in improving heart failure self-care have focused heavily on patient education and remote monitoring but less on sustaining one's motivation to change. More could also be done to empower patients with self-regulation skills in adopting and integrating self-care behaviours effectively into their lifestyle. In this presentation, Dr Chew will share how she developed a nurse-led heart failure program that leverages on personal motivations and building selfregulation skills to improve heart failure self-care.

## CPET in Patients with Post-COVID-19 Syndrome

Clin Assoc Prof Tan Swee Yaw, Director, Cardiac CT and Cardiovascular Rehabilitation, National Heart Centre Singapore

The COVID-19 pandemic had far-reaching consequences affecting large swaths of the population, resulting in significant mortality and morbidity. From respiratory, cardiovascular, neurological and immunological issues, we continue to discover new tenets about the disease as we learn more about the disease. Post-COVID-19 patients have reported a host of cardio-respiratory symptoms, which have made post-COVID-19 syndrome particularly difficult to diagnose. The Cardiopulmonary exercise testing (CPET) can potentially tease out the cause of the cardiovascular symptoms. This talk will discuss how a CPET can help in the diagnosis of post-COVID-19 syndrome.

### Behavioural Change in Cardiac Rehabilitation: It's Personal

Asst Prof Wong Su Ren, Principal Occupational Therapist, National University Hospital, Singapore

10:30-10:45 AM

Behavioural change is hard, but often, when patients encounter healthcare after a cardiac event, they can be more open towards making changes in their habits, lifestyle and routines. Occupational therapists work with patients to discover motivational keys to behavioural change. This talk explores a range of approaches that draw from adult-learning principles and motivational theories that have been known to encourage change. Participants will be introduced to client-centred strategies that encourage self-discovery, personal ownership and active participation in lifestyle changes and goals.

10:45-11:00 AM

Panel Discussion/Q&A Session

11:00-11:30 AM

Coffee Break/Exhibition/Poster Viewing

#### COVID-19 Associated POTS/IST

Dr Paul Lim, Cardiologist & Electrophysiologist, Mount Elizabeth Hospital and Parkway East Hospital, Singapore

Postural orthostatic tachycardia syndrome (POTS) is a complex multisystem disorder characterised by orthostatic intolerance and tachycardia, and it may be triggered by viral infection. Recent reports indicate that 2–14% of COVID-19 survivors develop POTS with symptoms of tachycardia, orthostatic intolerance, fatigue, and cognitive impairment within 6–8 months of infection. Treatment involves lifestyle modifications in combination with the use of heart rate–lowering medications along with other pharmacotherapies.

Panel Discussion/Q&A Session

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11:30-11:50 AM	Strategies to Prevent Cardiovascular Disease in Singapore: A Call-to-Action from the Singapore Heart Foundation, Singapore Cardiac Society and the Academy of Medicine, Singapore Dr Low Lip Ping, Chairman Emeritus, Singapore Heart Foundation, Consultant Cardiologist, Mount Elizabeth Medical Centre	
	Despite the success of Singapore's public health systems in providing comprehensive medical care, there is still much to be achieved in optimising the cardiovascular (CV) health of its 5.5 million residents. While the incidence of stroke and the mortality rates for stroke and ischaemic heart disease (IHD) have decreased, the incidence of IHD is increasing, partly due to the increasing prevalence of several modifiable CV risk factors.	
	In 2022 the Minister for Health of Singapore launched Healthier SG, a strategy championing the national shift towards a population health approach to proactively prevent individuals from developing chronic diseases such as CV disease (CVD).	
	The authors propose the following measures to augment the success of Healthier SG: (1) update standards of care in addressing the five main modifiable risk factors of CVD, namely, hypertension, dyslipidaemia, diabetes mellitus, obesity and smoking; (2) educate patients through a cooperation between healthcare professionals and community partners; (3) provide support for integrated care; (4) hold a comprehensive patient-education campaign (i.e., Eight Enablers to Fight Five) that outlines eight action points to control the five main modifiable CV risk factors.	
	Discussion with Special Guest Prof Terrance Chua, Group Chairman of Medical Board, SingHealth Group; Member of Board of Director, Singapore Heart Foundation	
11:50-12:30 PM	Debate – Dr Knows Best Healthcare vs Patient's Choice/Empowered Healthcare in CVD Prevention: Which Is Better?  Team 1 (Dr Knows Best Healthcare): Asst Prof Yeo Tee Joo, Director, Cardiac Rehabilitation Unit, National University Heart Centre Singapore; Dr Chan Ngai Yin, Chief of Service and Consultant Physician, Princess Margaret Hospital and North Lantau Hospital, Hong Kong	
	Team 2 (Patient's Choice/Empowered Healthcare): Assoc Prof Verena Tan, Health and Social Sciences Cluster Programme Lead, Singapore Institute of Technology; Prof Clara Chow, Academic Director, Westmead Applied Research Centre, University of Sydney, Australia	
12:30-12:45 PM	Award Presentation & Closing	
	End of Day 2 Symposium	