CARDIOVASCULAR DISORDERS 2

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Family Physicians play an instrumental role in the prevention and management of cardiovascular disorders, across the continuum of care settings. Our role starts with coronary risk screening with lipid, blood pressure and glucose monitoring, continuing to the management of patients with ischaemic heart disease and congestive cardiac failure as their disease severity progresses. According to the Ministry of Health's Singapore Health Facts, ischaemic heart disease had been the third leading cause of death over the last three years, accounting for 16.7% of deaths in 2015. This was a notable increase from 15.5% in 2013 and 16.0% in 2014. Hypertensive diseases such as hypertensive heart disease is the 6th leading cause of death locally.

Cardiovascular diseases are often preventable through a combination of a healthy lifestyle involving a well-balanced diet, adequate exercise and regular and early screening. It is critical to get it right from the start. But paradoxically, lifestyle change is often the hardest to achieve.

The patient-physician relationship is key in inspiring this change. Patient centered care starts with patient engagement and empowerment. We need to empower our patients to take charge of their health. This synergizes with nationwide campaigns, such as "Let's Beat Diabetes" and "Eat, Drink, Shop Health and Win Big", to raise public awareness on the importance of healthy lifestyles. At the community level, food centers are providing healthier food options and it is not uncommon now to see menu options paired with their caloric contents to enable buyers to make wiser and healthier choices.

The Family Practice Skill Course on Cardiovascular Disorders covers the importance and evidence-based management of cardiovascular risk factors. The course also looks at the impact of pain syndromes encountered by diabetic patients. The College of Family Physicians would like to thank Pfizer for supporting the skills course and the authors for contributing to this issue of the Singapore Family Physician and speaking for the skills course.

Unit 1 by Dr Tan Chee Eng cannot over-emphasize the importance of aggressive lipid management especially in patients with diabetes mellitus in reducing incidence of macro-vascular complications such as myocardial infarction and strokes, as he provides us with ample evidence and good trials such as the Collaborative Atorvastatin Diabetes Study (CARDS) trial. Treatment of dyslipidemia goes beyond medications only, and changes in diet, lifestyle and exercise are strongly advocated for. Patients with diabetes mellitus but those with exceptionally high cardiovascular risk may be candidates for even more aggressive lipid lowering therapy. Dr Tan also dealt with some of the meta-analyses of randomized trials that reported increased risk of diabetes mellitus with statin therapy, and noted that these patients already had risk factors for diabetes mellitus such as raised body mass index or impaired fasting glucose and that the risk did not get larger as therapy continued, and that this must be weighed against the cardiovascular benefits of statin therapy. The evidence showing benefits of lipid lowering therapy are overwhelming and the safety concerns are addressed conclusively.

Unit 2 by Dr Peter Ting discussed the strategy for risk assessment for patients with various risk factors to predict future cardiovascular diseases (CVD) and events such as death, acute myocardial infarction or stroke, and some of these different risk calculators included Framingham risk score, Europeans score, QRISK, QRISK2, Reynolds CVD risk score, ACC/AHA pool cohort hard CVD risk calculator, Joint British Societies (JBS) risk calculator and Multi-Ethnic Study of Atherosclerosis (MESA) risk score. Such risk calculators are not without their own limitations and there is no perfect calculator. However, they still play a key part in stratifying patients according to short and longer term risk and guide intensity of therapies, as long as knowledge of how they work and their limitations are understood when interpreting the findings.

Unit 3 by Dr Titus Lau reiterated the benefits of out of office BP measurement to estimate BP control, profile representation and prognosis and how this should be an inherent part of our practice, thus overcoming errors and variances associated with office BP measurement. With such close monitoring, it becomes possible to intensively control BP but there must be a safe balance against increased incidence of treatment side effects.

Unit 4 by A/Prof Leong Keng Hong highlighted the indications as well as the cardiovascular (CV) risks associated with usage of COX-2 inhibitors. The CNT trial found increased CV risks with high dose diclofenac, ibuprofen and coxibs. Choosing the correct NSAIDs or coxibs require the fine balancing of indications for usage of such medications vs individualized CV risk profile for these patients.

Unit 5 by Dr Bernard Lee discussed extensively on pain syndromes encountered in patients suffering from diabetes mellitus. While not commonly explored with diabetic patients by their physicians, such patients may suffer from debilitating pain resulting from painful diabetic neuropathy, arthropathy, musculoskeletal disorders and fibromyalgia. These in turn result in functional impairment and psychiatric disturbances, thus further exacerbating the pain cycle. Early identification and effective treatment is key to minimize the negative impacts of such pain syndromes in diabetic patients.

Unit 6 by Dr Colin Teo and Dr Lau Weida talks about the lesser known but interesting phenomenon of erectile dysfunction (ED) having strong correlation with coronary artery disease (CAD) and cardiovascular risk. ED is a common problem worldwide, but is seldom addressed adequately by clinicians locally, or perhaps even shied away from. Some of the identified factors that result in both ED and increased cardiovascular risks include atherosclerosis and testosterone

deficiency. Therefore CAD and ED should be considered as two different presentations of the same systemic disorder, and patients with erectile dysfunction should be appropriately screened for cardiovascular risk factors.

A/Prof Goh Lee Gan has also selected ten readings relevant to this skills course. These focused mainly on guidelines for management of dyslipidemia, and the evidence between statin-centric versus low-density protein-centric approach for patients in our local context, NSAID use in the management of osteoarthritis, musculoskeletal complications and men's health considerations in diabetes.

Interestingly in the US, their guidelines state that cholesterol is not considered a nutrient of concern for over-consumption, but there are reservations and the primary emphasis should be on heart healthy dietary patterns. With the ageing population, one of the concerns is the increasing incidence of isolated systolic hypertension, resulting in substantial morbidity and mortality, and the readings have addressed the epidemiology, pathophysiologic mechanisms, impact of isolated systolic hypertension on cardiovascular outcomes and blood pressure goals in the light of SPRINT and HOPE 3 trials.

Osteoarthritis is a chronic disease that plagues our patients and often its management poses challenges with the need for pain management. NSAIDs are a commonly prescribed analgesia and its efficacy and safety must constantly by at the back of our minds. There are concerns with its use in patients with higher cardiovascular risk, therefore one must exercise caution in its use and also with regard to the particular NSAID prescribed.

Men's health is an important topic that should be explored by Family Physicians in provision of holistic, patient centered care. The replacement of testosterone for patients with non-cardiac symptoms of low testosterone can pose a dilemma in patients with high cardiovascular risk. However, there must be a balanced approach in shared decision and discussion with the patient regarding the risks and benefits of replacement. Cardiovascular disease is also a known risk factor for erectile dysfunction and patients may often feel embarrassed to bring up this issue with their Family Physician. It is essential to be open in discussion about erectile dysfunction and provide patients with ways to decrease the risks factors associated with ED and treatment.

This issue features an original article and a PRISM article. Drs. Andrew Epaphroditus Tay Swee Kwang, Choo Kay Wee and A/Prof Gerald Koh performed a questionnaire study that involved an anonymous self-administered questionnaire to General Practitioners (GP) to collect data about their current practice costs, number of patient consultations, fees charged per consultation as well as clinic revenue. This information was then compared with past GP fees surveys, and consumer price index (CPI) to understand its impact on GP practice today. The authors found that the rise in practice cost had outpaced CPI-Health by more than threefold.

The PRISM article by Dr Hou Min Sheng, a family medicine resident shared the importance of having a high index of suspicion for Superior Mesenteric Artery (SMA) syndrome in patients presenting with abdominal pain and vomiting post scoliosis surgery through a case report. SMA syndrome is a well know but rare complication of corrective surgery for scoliosis and certain patients are at a higher risk of SMA syndrome. This case report shares the importance of early recognition, evaluation and intervention in preventing possibly devastating complications.