

PERSON CENTRED DIABETES CARE AND MEAL PLANNING FOR THE OLDER PERSON

Clin. Assoc Prof Low Lian Leng

SFP2020; 46(7): 3-4

Type 2 Diabetes Mellitus (T2DM) is a serious and common chronic condition, affecting approximately 425 million people worldwide between 20 to 79 years old.¹ It is also a rapidly growing health epidemic, with the number of people with diabetes projected to increase from 463 million in 2019 to 700 million in 2045.^{1,2} Singapore has the highest incidence of T2DM-related end-stage renal failure and amputation worldwide.^{3,4} The prevalence of chronic kidney disease in diabetes patients was 53 percent in 2015. The republic is expected to spend S\$1.8 billion in 2050, up from S\$940 million in 2014 in healthcare expenditure to treat diabetes complications.⁵ The Health Minister declared a “war” against DM in April 2016. The management of T2DM is complex and multi-faceted, as it is associated with various complications and imposes a significant psychological and emotional burden on the individual.⁶ Successful diabetes care requires a systematic approach to support patients’ behaviour change efforts, including healthy lifestyle choices, self-management and identification of self-management problems. This update is timely and complements a patient-centred approach to discuss evidence-based treatment options as well as identify barriers to adherence as well as motivations for self-management. The College is pleased to partner with Abbott to conduct this Family Practice Skills Course for our doctors.

In Unit 1, Dr Khoo Chin Meng wrote about optimising glycaemic targets with comorbidities in mind for older adults with T2DM. Ageing is associated with changes in the body composition, reduced insulin sensitivity and beta-cell function, which predispose the older adults to glucose intolerance and a higher risk of diabetes mellitus. The Appropriate Care Guidelines on Oral Glucose-Lowering Agents and Initiating Basal Insulin in type 2 diabetes mellitus published by the Ministry of Health in 2017, have provided the framework for the use of oral glucose-lowering agents and insulin therapy for diabetes management in the general population. The individualisation of treatment goals according to the patient factors, aspiration and goals is critical, including early access to health care as older adults are prone to rapid deterioration in the clinical condition. The choice of pharmacotherapy, between oral and injectables, should depend on the individual’s functional and physical capabilities and level of dependency.

In Unit 2, Prof Tai E Shyong and A/Prof Yew Tong Wei reviewed the theoretical basis of person-centred care, with a special focus on the Chronic Care Model (CCM), and described the steps involved in performing person-centred care. The CCM focuses on six elements that can be modified to support productive interactions between an informed, empowered patient (one who plays an active role in their care) and a prepared, proactive team of HCPs. The theory is that these interactions will lead to improved patient care and outcomes. The six elements are 1) the health system, 2) the community, 3) self-management support, 4) delivery system design, 5) decision support and 6) clinical information systems. The authors also described how to perform person-centred

diabetes care in five steps, using the Year of Care (YoC) programme as an example. The evidence for the impact of person-centred care on chronic disease outcomes, self-management, as well as individual and healthcare professional (HCP) satisfaction is also provided.

In Unit 3, Dr Harvinder Kaur and Dr Winnie Chee from the International Medical University, Malaysia, shared on the localisation of structured lifestyle recommendations and its effectiveness in achieving weight loss and good glycaemic control in overweight/obese patients with T2DM. Overweight/obese patients with T2DM could benefit from weight loss of 5-10 percent as modest weight loss reduces cardiovascular risk factors associated with T2DM and improves hyperglycaemia. Provision of structured meal plans simplifies the task of following the prescribed diet and consequently lead to better adherence. The authors shared the structured lifestyle recommendations in a Malaysian study that consisted of 1) a fixed low-calorie diet plan of 1200 kcal/day for female and 1500 kcal/day for male patients; 2) incorporation of one or two servings/day of diabetes-specific formula as a meal replacement; 3) a 14-day structured meal plan consisting of the ingredients list, cooking methods and nutrition facts; and the 4) healthy low-calorie snack options. Exercise prescription of ≥ 150 min/week of moderate-intensity was also encouraged. Behavioural counselling such as motivational interviewing not only facilitated adherence to the lifestyle recommendations but also further enhanced weight loss and glycaemic control in these patients.

In this issue, A/Prof Goh Lee Gan has also selected ten current readings on topics related to patients’ perspective on self-management and dietary advice in T2DM, barriers to effective obesity management, cost-effectiveness of pharmacy care plans, and the mechanisms of diabetes-specific nutrition formulas to cause weight loss in T2DM.

In this issue, we also have two PRISM articles and one case report. The first PRISM article by Dr Lin Xin and Dr Jeffrey Jiang is a case study of Acute Lymphoblastic Leukaemia (ALL) in a 7-year-old child presenting with lower limb pain. This case highlights the important clinical presentations and differential diagnoses of ALL that a family physician should be cognizant about to avoid misdiagnosis. It also demonstrates the importance of understanding the patient and family’s perspectives when evaluating a child with lower limb pain. The second PRISM article is by Dr Tan Hwei Ming and Dr Jeffrey Jiang. They described a case of an adolescent with stroke, and their application of the International Classification of Functioning, Disability and Health (ICF) And Kawa Models in the structuring of a holistic, interdisciplinary team management. The application of both models provided clear communication within the interdisciplinary team and aided the team to understand the contextual factors in the interaction of the patient’s rehabilitation journey. Finally, Dr Ng Li Yan and Dr Jeffrey Jiang’s case report highlighted the complexity in the management of newly diagnosed atrial fibrillation in an elderly female with recurrent falls and a lack of mental capacity. Family

physicians (FP) can apprise themselves of the latest 2019 AHA/ACC/HRS guidelines, 2017 ACE guidelines and 2016 ESC guidelines regarding atrial fibrillation (AF) management. The FP play an important role to facilitate shared decision making between the patient, family and specialists. By taking recommendations from specialists and integrating them with patient's and family preferences, ideas and values, the FP is able to provide an avenue for individualised informed decision making.

We hope you will enjoy this issue of Person Centred Diabetes Care and Meal Planning for the Older Person. Please stay safe and take care.

REFERENCES

1. Federation ID. IDF Diabetes Atlas, 9th edition Brussels, Belgium: 2019 Available at: <https://www.diabetesatlas.org>
2. Zheng Y, Ley SH, Hu FB (2018) Global aetiology and epidemiology of type 2 diabetes mellitus and its complications. *Nat Rev Endocrinol* 14(2): 88-98. 10.1038/nrendo.2017.151
3. Low LL, Xu BY. A timely update in our war against diabetes. *The Singapore Family Physician* 45(1): 3-4.
4. Woo KT, Choong HL, Wong KS, Tan HB & Chan CM. The contribution of chronic kidney disease to the global burden of major noncommunicable diseases. *Kidney international*. 2012 May 2;81(10):1044-53.
5. Seng JJ, Kwan YH, Lee VS, Tan CS, Zainudin SB, Thumboo J, Low LL. Differential Health Care Use, Diabetes-Related Complications, and Mortality Among Five Unique Classes of Patients With Type 2 Diabetes in Singapore: A Latent Class Analysis of 71,125 Patients. *Diabetes care*. 2020 May 1;43(5):1048-56.