

# Updates in DM and CKD Management: "Are SGLT2 Inhibitors the Answer?"

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In Singapore, the prevalence of chronic kidney disease (CKD) is increasing due to an ageing population and the increasing prevalence of risk factors such as hypertension and diabetes mellitus (DM). CKD is a common comorbidity of DM.<sup>1</sup> Diabetic nephropathy is the most frequent cause of CKD, leading to nearly half of all cases of end-stage kidney disease (ESKD) requiring renal replacement therapy (RRT).<sup>2,3</sup> Both DM and CKD are associated with increased morbidity and mortality. Cardiovascular disease (CVD) is the main cause of death amongst patients with DM and CKD.<sup>4,5</sup> Multi-interventional approaches involving blood pressure control<sup>1,6</sup> and maintaining glycaemic control<sup>1,6</sup> are recommended to slow the progression of worsening albuminuria and kidney dysfunction, and reduce the risk of cardiovascular events. In recent years, research has found that the use of SGLT2 inhibitors (SGLT2i) in DM consistently reduces the risk of albuminuria, eGFR decline, kidney failure, and death.<sup>7-10</sup> DM and CKD management makes up a large part of primary care practice and family physicians need to be well-versed in managing these conditions. This issue will provide an update on the latest evidence-based treatment option of SGLT2 inhibitors in DM and CKD management. The College is pleased to partner with AstraZeneca in conducting this Family Practice Skills Course for our doctors.

In Unit 1, A/Prof Goh Su-Yen writes about the treatment gaps and clinical inertia that still exists despite cardiovascular and renal outcome trials showing the benefits of SGLT2i use in DM patients. She highlights and discusses the various cardiovascular outcome trials (CVOTs) that have shown a consistent risk reduction for death and hospitalisation for heart failure. She also addresses the barriers to SGLT2i usage and advocates for the early implementation of effective therapy such as SGLT2i, which offers cardiorenal protection for patients with DM.

In Unit 2, A/Prof Teo Boon Wee Jimmy writes about the importance of screening for CKD in order to start treatments that can retard CKD and prevent CKD complications. He discusses the management of CKD and highlights the role of SGLT2i on kidney function in both diabetic and non-diabetic CKD. He also describes when to initiate SGLT2i, explains the mechanism of SGLT2i, and details the effects of SGLT2i on kidney outcomes.

In Unit 3, Drs Ooi Xi Yan and Yeo See Cheng write about The Holistic Approach in Lowering and Tracking Chronic Kidney Disease (HALT-CKD) programme. The HALT-CKD programme is a multi-faceted, integrated approach that aims to delay the progression of CKD. They discuss the rationale and aims of lifestyle modifications, medical interventions, and emerging treatment. Practical tips for implementing these interventions through clinical care paths are also provided.

In this issue, A/Prof Goh Lee Gan has also selected ten

current readings on topics related to: Updates in DM and CKD Management: "Are SGLT2 Inhibitors the Answer?". These readings include articles on the effects of SGLT2i in DM nephropathy, the mechanism of SGLT2i, and the pathophysiologic mechanisms in DM nephropathy.

In this issue, we also have a PRISM article by Dr Gabriel Yee who describes a case of expedited peritoneal dialysis from rapid progression of ESKD in an elderly man, and the biological and psychosocial barriers that arose whilst managing this patient. He also details how Integrated Primary Care for an At-Risk Elder (IPCARE) enables family physicians to provide anticipatory transitional care for vulnerable older adults.

We hope that you will enjoy this issue of: Updates in DM and CKD Management: "Are SGLT2 Inhibitors the Answer?".

## REFERENCES

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