## **SYMPOSIUM 2**

## **Diabetes from 360 Perspective**

Improving Medication Adherence: The DMTAC Approach

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Uncontrolled diabetes leads to various microvascular and macrovascular complications which not only reduce the quality of life of diabetes patients but also put pressure on healthcare expenditure due to the high cost of managing these complications. Despite wide access to treatment, only 30.7% of type 2 diabetes patients attained HbA1c < 6.5% as reported in the National Diabetes Registry Report 2020. Pharmacists in the Ministry of Health have been helping to improve the glycemic control of diabetes patients through the Diabetes Medication Therapy Adherence Clinic (DMTAC). Since its inception in 2006, the DMTAC clinic has expanded to about 400 hospitals and health clinics in the Ministry of Health. DMTAC aims to improve the knowledge and adherence of diabetes patients to medication therapy by medication review and by providing structured education continuously through scheduled follow-ups. In DMTAC, a type 2 diabetes patient receives medication knowledge and adherence assessment, insulin injection technique assessment, hypoglycemia assessment, review of selfmonitoring of blood glucose (SMBG) readings, monitoring of medication side effects, and adjustment of insulin doses. Among the common medication-related issues of diabetes patients include poor understanding of medication-taking, poor medication adherence, refusal of insulin, poor insulin injection technique, and hypoglycemia. The DMTAC pharmacists undertake several approaches to tackling these issues. This includes personalized medication counseling in which the function and impact of each of their medications on their diabetes are discussed. Multiple studies had reported significant improvements in medication adherence scores and HbA1c reduction among patients in the DMTAC cohort as compared to standard care and this service was also proven to be more cost-effective. The DMTAC service also endured the challenges of the COVID-19 pandemic where initiatives such as virtual review and virtual medication counseling were employed to sustain the service. In conclusion, pharmacists through the DMTAC service have managed to improve medication adherence and clinical outcomes of diabetes patients.

Keywords: Diabetes management, Medication adherence, Integrated care, Pharmacists, Diabetes Medication Therapy Adherence Clinic (DMTAC), COVID-19 pandemic.

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