

Glycaemic, Blood Pressure and Low Density Lipoprotein Cholesterol Control in Adult Patients with Diabetes in Singapore: A Review of Singapore Literature Over Two Decades

Zhongxian Poh,^{1,2}*MRCP, MMed*, Kavita Venkataraman,³*MBBS, PhD*, Sue-Anne ES Toh,^{4,5}*MD, MSc*, Lian Leng Low,⁶*MMed, MCI*

Abstract

Introduction: Diabetes mellitus is a burgeoning global health epidemic, with an estimated 422 million people living with diabetes in 2014. The number of adult diabetic patients in Singapore is expected to rise to 1 million in 2050. Despite advances made in the management of diabetes and improvements in healthcare accessibility and delivery, the rate and complications of diabetes (myocardial infarction, stroke, kidney failure and lower limb amputation) in Singapore have not decreased. Gaps between guidelines and practice have been reported in several parts of the world. In this narrative review, we aimed to describe the control of diabetes in Singapore over the past 20 years. **Materials and Methods:** We reviewed studies describing, or trials intervening in, the glycaemic, blood pressure (BP) and low density lipoprotein cholesterol (LDL-C) control of adult diabetic patients in Singapore published over the past 20 years (1997-2016). Studies selected from comprehensive electronic databases searches were reviewed by 4 reviewers (2 primary care physicians, 1 diabetologist and 1 public health epidemiologist). The GRADE approach was used to evaluate the quality of evidence. **Results:** We included 23 articles involving 257,097 subjects. There were 9 longitudinal, 12 cross-sectional and 2 case-control studies. All studies reported mean/median HbA1c between 7.2%-8.6%. BP ranged between 126.5-144 mmHg (systolic) and 70-84 mmHg (diastolic) in 9 studies. Nine studies reported LDL-C between 2.4-3.3 mmol/L. **Conclusion:** Mirroring global patterns, the glycaemic, BP and LDL-C control in adult diabetic patients in Singapore do not appear to be treated to target in the majority of patients.

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¹Frontier Healthcare Group, Singapore

²Division of Family Medicine Residency Program, Department of Medicine, University Medicine Cluster, National University Hospital System, Singapore

³Saw Swee Hock School of Public Health, National University of Singapore, Singapore

⁴Department of Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

⁵Division of Endocrinology, Department of Medicine, University Medicine Cluster, National University Hospital System, Singapore

⁶Department of Family Medicine and Continuing Care, Division of Medicine, Singapore General Hospital, Singapore

Address for Correspondence: Dr Poh Zhongxian, Frontier Healthcare Corporate Office, 305 Ubi Avenue 1, #02-183, Singapore 400305.

Email: adrianpoh@frontierhealthcare.com.sg