

Short Report

Greater Green Triangle Diabetes Prevention Program: Remaining treatment gaps in hypertension and dyslipidaemia

Kevin Mc Namara,^{1,2} Benjamin Philpot,¹ Edward D. Janus^{1,3} and James A. Dunbar¹

¹Greater Green Triangle University Department of Rural Health, Flinders University and Deakin University, Warrnambool, ²Department of Pharmacy Practice, Monash University, Parkville, and

³Department of Medicine, University of Melbourne, Western Hospital, Footscray, Victoria, Australia

Within 20 years diabetes will become the leading contributor to overall burden of disease in Australia and worldwide, particularly as the population ages and becomes more obese.¹

Several randomised controlled trials have demonstrated that lifestyle modification reduces risk of progression to diabetes.² The 2004–2006 Greater Green Triangle Diabetes Prevention Program (GGT DPP) demonstrated that lifestyle modification was feasible and effective in Australian primary care.³ Cardiovascular risk dramatically increases in patients at risk of diabetes, and cost-effective diabetes prevention programs should aim to address not just diabetes risk, but also cardiovascular disease (CVD) risk factor management. At 12 months, GGT DPP reduced the estimated risk of progression to diabetes by 40% and the estimated risk of CVD by 16%.

National Heart Foundation guidelines^{4,5} for the management of lipid disorders and hypertension recommend consideration of pharmacological management where lifestyle management has not been sufficiently effective and CVD risk remains moderate to high. This study examines the extent to which untreated high-risk patients commence pharmacological treatment for blood pressure (BP) or lipid disorders during or after a diabetes prevention lifestyle intervention.

Participants, methods and results

Methods for this longitudinal pretest and post-test study have been previously described.³ Overall, 311 individuals aged 40–75 years at moderate to high risk of developing type 2 diabetes were recruited through general practices. Participants received six 90-min lifestyle

modification counselling sessions facilitated by specially trained nurses over eight months.

Outcome measures at baseline, three and 12 months included body mass index, waist circumference, fasting and two-hour oral glucose tolerance test plasma glucose, lipids and BP. After the study, participants were asked to recall whether they were taking lipid lowering or antihypertensive medication at baseline and 12 months.

Of 237 participants who attended baseline and 12 months clinical testing and at least one session, 220 had sufficient information on BP, CVD risk (according to 2004 BP guidelines⁴) and BP medication. At baseline, 71 individuals were already on antihypertensives, with 47 (66%) of these inadequately controlled at 12 months. Of 17 at high CVD risk who were not treated at baseline, 15 did not achieve BP targets at 12 months, with only one of these commencing drug treatment.

A total of 217 participants had sufficient information on CVD risk (according to 2001 lipid guidelines⁵), lipid lowering medication status and lipid control. In total, 76 participants had at least 10% CVD risk at baseline and were not receiving lipid lowering medication. Only four commenced lipid lowering treatment during the 12-month intervention. All 76 participants still had lipids above target levels at 12 months. However, only 54 still had greater than 10% CVD risk.

Comment

Despite significant improvements in diastolic BP and lipids, our results suggest that evidence–treatment gaps exist for the pharmacological management of hypertension and dyslipidaemia for patients who have completed a 12-month diabetes prevention program. GPs were informed of oral glucose tolerance test, BP and lipid levels. Given the lack of treatment initiation by 12 months among patients with sustained elevated CVD

Correspondence: Kevin Mc Namara, Greater Green Triangle University Department of Rural Health, Flinders University and Deakin University, Warrnambool, Victoria, 3280, Australia. Email: kevin.mcnamara@greaterhealth.org

risk, we could conclude that separate initiatives might be required to ensure optimal pharmacological management.

Pharmacists are one of the few non-medical health professionals regularly accessed in most rural communities. They are perhaps the only non-medical professional in many communities with medicines use and health promotion expertise. There is overwhelming evidence for an effective role by community pharmacists in reducing BP and increasing evidence for roles in lipid management and management of multiple CVD risk factors through lifestyle modification and pharmacological management.^{6,7} We recommend further research into the role pharmacists might play as part of a primary care team in the management of CVD risk.

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References

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