

Hypertension and dyslipidaemia: Missing medications and missing targets

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INTRODUCTION

Research has shown that hypertension and dyslipidaemia are important risk factors for the development of cardiovascular complications, and that there are effective pharmacological treatments available to control blood pressure and lipids among people with diabetes. This study aimed to examine pharmacological treatment of cardiovascular risk factors among those with type 2 diabetes in the North West Adelaide Health Study, a representative longitudinal cohort study of people aged 18 years and over living in the north west region of Adelaide.

METHODS

All households within the north west region of Adelaide, with a telephone connected and the number listed in the Electronic White Pages were eligible for selection in the North West Adelaide Health Study. The original sample (n=4060) was randomly selected and recruited by computer assisted telephone interview in 2000-2002 (Stage 1) to participate in a clinic assessment. Within each household, the person who had their birthday last and was aged 18 years or older, was selected for interview and invited to attend the study clinic. The response rate for Stage 1 was 49.4%.

The second stage of data collection for this cohort was undertaken between 2004 and 2006. Of the original living cohort, 3564 (90.1%) participants provided some Stage 2 information, and 3206 (81.0%) attended the clinic for their second visit, with diabetes status at follow-up obtained for 78.3% (n=3180) of the original participants.

Respondents were asked if they had ever been told by a doctor that they had diabetes at both Stage 1 and Stage 2. Blood pressure and cholesterol levels were biomedically measured at each clinic visit. All medications that participants were taking, including complementary and alternative medicines, were recorded at the Stage 2 clinic visit. For the purpose of this analysis, medications for hypertension included angiotensin-converting enzyme (ACE) inhibitors, angiotensin receptor antagonists, diuretics, ACE inhibitor and diuretic combination, beta blockers, or calcium channel blockers. Medications for dyslipidaemia included statins, fibrates and fish oils.

Data were weighted by age, sex, area of residence and probability of selection in the household to ensure that the sample was representative of the north west population.

RESULTS

Overall, 4.5% (95% CI 3.9-5.3) of respondents at Stage 2 of the study reported that they had been told by a doctor that they have type 2 diabetes (n=158).

Table 1 presents the proportion of those with diagnosed type 2 diabetes at Stage 2 who were and were not meeting the Australian management target for blood pressure control ($\leq 130/80$ mmHg) by use of medication(s) for hypertension. Among both those not taking any medication for hypertension and those taking at least

one medication for hypertension, there was a significantly higher proportion of people not meeting the management target for blood pressure control.

Table 1. Proportion of those with diagnosed type 2 diabetes who were and were not meeting the blood pressure management target of ≤ 130 mm Hg by use of medication(s) for hypertension.

	Not meeting management target	Meeting management target
Not taking medication for hypertension (n=55)	68.7%	31.3%
Taking at least 1 medication for hypertension (n=97)	88.5%	11.5%

Among those not taking any medication for dyslipidaemia (n=74), 81.9% were not meeting the Australian management target for LDL cholesterol (< 2.5 mmol/L), 33.8% were not meeting the target for HDL cholesterol (> 1.0 mmol/L), and 58.9% were not meeting the target for triglycerides (< 1.5 mmol/L). Of those people taking at least one medication for dyslipidaemia (n=78), 36.3% were not meeting the Australian management target for LDL cholesterol, 27.5% were not meeting the target for HDL cholesterol, and 70.5% were not meeting target for triglycerides (Figure 1).

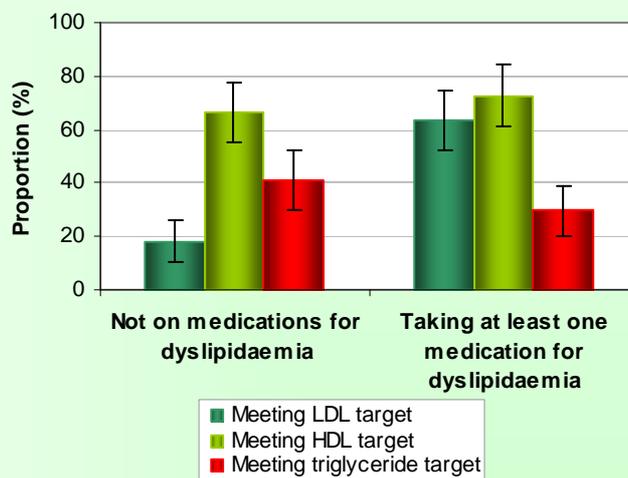


Figure 1. Proportion of those with diagnosed type 2 diabetes who are meeting lipid management targets by medication use

CONCLUSIONS

Medication is an important part of treating risk factors for macrovascular complications in type 2 diabetes. There is a large proportion of people with type 2 diabetes who are not meeting recommended management targets for blood pressure and lipids in Australia, indicating missed opportunities for appropriate pharmacological treatment for hypertension and dyslipidaemia.