

Secondary Prevention of Cardiovascular Disease in an Australian population

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Alison Koschel

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I dedicate this work to my husband my children and my mum. I especially dedicate this work to my father who left this world before I commenced this work but who I am sure has been watching over me.

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To those that read this thesis, sit back enjoy a glass of red wine and happy reading!

“Get over the idea that only children should spend their time in study. Be a student so long as you still have something to learn, and this will mean all your life.” ~ Henry L. Doherty

“Make every home, every shack or rickety structure a centre of learning” ~ Nelson Mandela

Table of Contents

Chapter 1	Coronary Heart Disease, Ischaemic Stroke and Secondary Prevention	1
Chapter 2	Prevalence of risk factors and secondary prevention care following hospitalisation for Coronary Heart Disease or Ischaemic Stroke in the Hunter Region, Australia	51
Chapter 3	Prevent Another Vascular Event (PAVE) study rationale, methods, measures, and recruitment outcomes	85
Chapter 4	Effectiveness of a register-based intervention on increasing general practitioner provision of secondary prevention care: Effect on medication use and advice	141
Chapter 5	Effectiveness of a register-based intervention on increasing general practitioner provision of secondary prevention care: Effect on behavioural risk advice	166
Chapter 6	A summary of findings and future directions for research and practice	185

Synopsis

Chapter one presents an overview of Coronary Heart Disease, Ischaemic Stroke and Secondary Prevention. A definition of disease and recurrent events addressed in this thesis is supplied along with the burden of disease in a local context which is compared to National and International burden of disease figures. Given the focus of this thesis is secondary prevention, modifiable risk factors for CHD and Stroke are identified and discussed in terms of their ability to modify CHD and Stroke if prevented. Proportions of risk factors nationally and internationally are presented to give a picture of the magnitude of the risk associated with CHD and Stroke. Management of risk factors in terms of primary and secondary prevention are presented with an emphasis on available guidelines. Proportions of secondary prevention management at national and international level are presented which highlight a gap in care which gives rise to the aim of this thesis.

Chapter two explores in the Hunter region the prevalence of risk factors and secondary prevention care in a sample of patients following discharge from hospital for either a CHD or Stroke event. The chapter concludes that there is room for improvement in this population for risk factor management in patients who have had a prior CVD event.

Chapter three describes in detail a randomised controlled trial designed to intervene with patients with existing CVD, the Prevent Another Vascular Event (PAVE) study. The chapter provides evidence of the suitability of using General Practitioners as deliverers of care and outlines the methods used in the factorial design which hypothesized an increase in risk factor management in a patient only group, a GP only group, a GP and patient intervention group compared to a usual care control group. The chapter presents recruitment and baseline risk factor prevalence results which are then compared to National and International study data.

Chapter four presents results in relation to the pharmaceutical interventions for risk factors such as high blood pressure, high cholesterol and Atrial Fibrillation. Additionally this chapter discusses the use of Aspirin and advice to take Aspirin as an outcome.

Chapter five focuses on the results relevant to behavioural risk factor modification such as advice to increase physical activity, increase smoking cessation and advice to follow a modified fat diet.

Finally chapter six presents a summary of the findings and the future directions for research and practice.

Acronyms

CHD	Coronary Heart Disease
Stroke	Cerebrovascular event
CVD	Cardiovascular disease
WHO	World Health Organization
ICD	International Classification of Disease
AMI	Acute Myocardial Infarction
UAP	Unstable Angina Pectoris
IHD	Ischaemic Heart Disease
ACE	Angiotensin-converting enzyme inhibitors
AIHW	Australian Institute of Health and Welfare
CI	Confidence Interval
AF	Atrial Fibrillation
TIA	Transient Ischaemic Attack
RR	relative risk
OR	odds ratio
BMI	body mass index
GP	General Practitioner
Statins	HMG-CoA reductase inhibitors
MI	Myocardial Infarction
CR	Cardiac Rehabilitation
AHA/ACC	American Heart Association/American College of Cardiology
AHA/ASA	American Heart Association/American Stroke Association
LDL-C	Low-density lipoprotein cholesterol
HSP	Hunter Secondary Prevention study
PAVE	Prevent Another Vascular Event study
et al.,	More than one author
mmHg	Millimeters of Mercury (blood pressure reading)

Appendix

Appendix 2.1	Heart & Stroke Register survey	207
Appendix 2.2	Parsimonious logistic regression model results	209
Appendix 3.1	Recruitment materials	215
	Invitation letter for people already on the Heart & Stroke register	
	Invitation letter for people not currently on the Heart & Stroke register	
	Reminder letter for PAVE study	
	PAVE study Information sheet	
	PAVE study consent form	
	6 month follow up survey letter	
Appendix 3.2	Baseline surveys	223
	Baseline Heart survey	
	Baseline Stroke survey	
Appendix 3.3	GP Randomisation protocol	234
Appendix 3.4	Intervention materials - report card and letters	237
	Heart – patient letter	
	Heart – patient record card	
	Heart – GP letter	
	Heart – GP report card	
	Stroke – patient letter	
	Stroke – patient report card	
	Stroke – GP letter	
	Stroke – GP report card	
Appendix 3.5	Intervention materials – resource maps	251
	Resource map – heart diagnosis	
	Resource map – stroke diagnosis	
Appendix 3.6	Intervention materials – GP guidelines	256
	Stroke Guidelines	
	Heart Guidelines	

Appendix 3.7	Tailored recommendations	264
	Report Card response options and relevant recommendations	
	Report Card Key to Asterisk insertion	
Appendix 3.8	Pre-testing of intervention materials	271
	PAVE pre test protocol for patient intervention material	
	PAVE pre test protocol – patient information sheet	
	PAVE pre test protocol – consent form	
	PAVE pre test protocol - survey	
Appendix 3.9	Six-month Followup survey	280
Appendix 3.10	Database process instructions for assistants	289