Secondary prevention in 24 431 patients with coronary heart disease: survey in primary care

A J B Brady, M A Oliver, J B Pittard

Prevention of further cardiovascular events in patients with established coronary heart disease is a priority for public health.[1] Previous studies have addressed such issues and have showed that there is considerable room for improvement.[2–4] The Healthwise survey was conducted in primary care throughout Britain to identify the prevalence of recorded coronary disease and to examine whether progress had been made in secondary preventive measures. Smoking, blood pressure, recording of cholesterol concentrations, and the specific use of the four lifesaving classes of cardiac drugs—aspirin, β blockers, angiotensin converting enzyme inhibitors, and statins—were studied. (Other lifestyle issues, such as dietary assessment and exercise, were variably noted in practice records and are not shown.)

Participants, methods, and results

Practices that had computerised records but had not recently undergone an audit of coronary heart disease were identified from the Pharbase national registry of general practices (IMS Health Strategic Technologies, Loughborough). A total of 653 general practitioners were invited to take part; 548 accepted. Twelve research nurses joined these practices for about four weeks between March 1997 and August 1998. Patients with established coronary disease were identified from practice records and the recording of risk factors and secondary preventive measures was noted.

The mean list size was 7220, with an average of four doctors in each practice. The total practice population was 989 161, representing 1.7% of the population of England, Scotland, and Wales. A total of 24 431 patients had a diagnosis of coronary disease, a prevalence of 45 patients per doctor. The mean age of men was 67 years and that of women was 72. Two thirds of the patients were aged 60-80. The table shows the prevalence of risk factors and secondary preventive drug treatment.

Comment

The Healthwise survey shows that even in well organised general practices there is ample scope for improvement in the detection, recording, and intervention of the major cardiac risk factors among patients with established coronary heart disease. This is the largest survey of secondary prevention of coronary disease in UK general practice in recent years. It may have a bias, representing larger practices with computerised systems in place by 1997.

Several issues are notable. The prevalence of coronary disease was 2.5% in the study; in Britain it is 3-7%. The discrepancy reflects the incomplete data in primary care records. These "lost" individuals are unlikely to receive optimal secondary preventive measures. Patients with established disease in our study were predominantly 60-80 years old, reflecting the ageing and increased survival of the UK population.

Of risk factors in patients with established coronary disease, stopping smoking is the most important action any person can make, yet almost a quarter of the total study population still smoke. Control of blood pressure is reasonably good among people without diabetes, with about two thirds of the overall study population having blood pressure below 160/90 mm Hg. However, blood pressure is less well managed among diabetic patients. We now know that management of blood pressure is at least as important as good control of blood glucose, and better control in these high risk patients is needed.

Lipids were much less well managed than blood pressure. Most patients were hypercholesterolaemic or had never been tested. Only a few were taking statins, despite evidence that these drugs are effective. It is also disappointing that so few patients with a previous myocardial infarction were receiving β blockers, drugs that are proved to reduce ventricular tachycardia and sudden death after a heart attack. It is encouraging that about half of the patients with heart failure in this study were prescribed angiotensin converting enzyme inhibitors.

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4   Campbell NC, Thain J, Deans HG, Ritchie LD, Rawles JM. Secondary prevention in coronary heart disease: baseline survey of provision in general practice. *BMJ* 1998;316:1430-4.

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Department of Medical Cardiology, Glasgow Royal Infirmary University NHS Trust, Glasgow G31 2ER
A J B Brady
consultant cardiologist

Merck Sharp and Dohme, Hoddesdon EN11 9BU
M A Oliver
coronary heart disease programme manager

Staines and Thameside Medical, Staines TW18 3JH
J B Pittard
general practitioner

Correspondence to: A J B Brady
a.j.brady@clinmed.gla.ac.uk

Major modifiable risk factors and prescription of secondary preventive drug treatment in 24 431 patients with a diagnosis of coronary disease from 548 UK practices. Values are numbers (percentages) of patients

	Men (n=14 533)	Women (n=9898)
Risk factor		
Continued smoking	3783 (26)	1939 (20)
Diabetes mellitus	1589 (11)	1055 (11)
Hypertension (>160/90 mm Hg)	5407 (37)	4483 (35)
Diabetic patients (n=2644)	636/1589 (56)	591/1055 (56)
Cholesterol never recorded	5114 (35)	5112 (52)
Total cholesterol >5 mmol/l	6830 (47)	3977 (40)
Preventive drug treatment		
Aspirin	7728 (53)	4505 (46)
β blockers	3303 (23)	1927 (19)
Previous myocardial infarction (n=10 164)	1750/7143 (24)	625/3021 (21)
Angiotensin converting enzyme inhibitors	2073 (14)	1207 (12)
Congestive heart failure (n=715)	245/443 (55)	124/272 (46)
Statins	2634 (18)	1315 (13)