



Fast Facts

- The use of cardiovascular medicines has continued to rise, suggesting increasing 'best practice' by GPs.
- People who are socioeconomically disadvantaged have higher use of cholesterol lowering agents and some clot preventing medicines.
- Many people stop taking cardiovascular medicines that should be taken long-term.
- People in rural and remote areas have higher death rates from cardiovascular disease (compared with those in major cities) but medicines are dispensed at half the rate in rural areas, and about one-thirtieth the rate in remote areas.
- Adverse effects of cardiovascular and blood medicines were associated with 301 deaths and almost 28,500 hospitalisations in 2004.

MORE INFORMATION

Medicines for cardiovascular health: are they used appropriately? is available for download (free of charge) or purchase from www.aihw.gov.au/publications. Copies of the report can also be purchased through CanPrint (ph 1300 889 873).

Medicines for cardiovascular health: are they used appropriately?

Cardiovascular disease (heart disease, stroke and vascular disease) affects nearly one in five Australians. About 65% of these people use cardiovascular and blood medicines for their condition. This equates to about 2.3 million people who rely on these kinds of medicines to maintain their health.

Government expenditure on medicines commonly used for cardiovascular health amounted to \$2 billion in 2005, representing 35% of the total spent on all subsidised medicines.

The Australian Institute of Health and Welfare's report *Medicines for cardiovascular health: are they used appropriately?* covers:

- trends in prescription and supply of these medicines
- patterns of supply by geographic area and socioeconomic level
- whether patients take medicines as intended
- adverse events associated with these medicines
- initiatives to improve the quality of use of medicines
- government expenditure on cardiovascular medicines.

About the use of medicines for cardiovascular health

Quality use of medicines means selecting management options wisely considering the place of medicines in treating illness and maintaining health, and recognising that there may be better ways to manage disorders than using medicines.

Using medicines safely and effectively by monitoring outcomes; minimising misuse, over-use and under-use; and improving the ability to solve any problems related to medicines are all part of ensuring these medicines are used appropriately.

Trends in the supply of medicines for cardiovascular health

Over the period 1995–2005 there were important changes in the supply of medicines for cardiovascular health in the community:

- Of medicines with blood pressure lowering effect, agents acting on the renin-angiotensin system were the most popular (120% increase), calcium channel blockers and beta blockers also increased by 21% each, while diuretics fell by 28%, antihypertensives fell by 37% and peripheral vasodilators, which were dispensed infrequently, fell by 90%.
- Among blood lipid modifying agents, statins rose markedly (1,200% increase) but other medicines in this group were supplied relatively rarely.
- Antithrombotic agents (clot preventing and clot busting medicines) increased considerably—platelet aggregation inhibitors particularly (4,700%).
- Among heart therapy medicines, antiarrhythmics rose (49%) while the rest fell—vasodilators (-7%), cardiac glycosides (-44%) and cardiac stimulants (-22%).

GPs prescribing more medicines

Increasing use of 'best practice' in managing cardiovascular conditions is suggested by steady rises between 2000 and 2006 in the rate of GP prescriptions for

- cholesterol lowering agents (statins) in coronary heart disease and diabetes
- certain blood pressure lowering medicines (agents acting on the renin-angiotensin system) in hypertension and diabetes
- clot preventing medicines in coronary heart disease
- beta blocking agents in heart failure.

National initiatives improving the quality of use of medicines

There have been encouraging improvements in managing hypertension and coronary heart disease—more patients are controlling their blood pressure by using blood pressure lowering medicines suited to their coexisting health conditions, receiving early clot busting

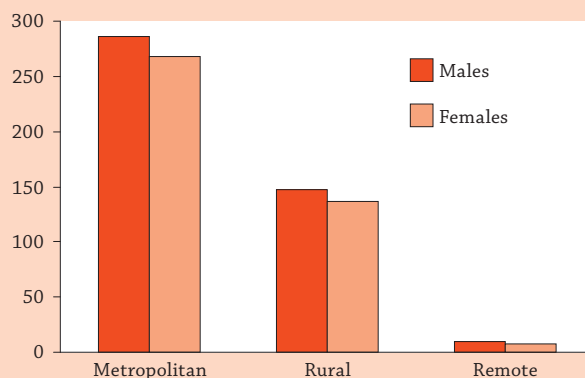
treatment if having a heart attack, taking aspirin and a cholesterol lowering agent if they have coronary heart disease, and taking beta blocking agents if they have had a heart attack.

Disparities in access to medicines

People living in metropolitan areas were dispensed cardiovascular medicines at twice the rate of those in rural areas, and 29–58 times the rate of people in remote areas. This is despite higher deaths from cardiovascular disease in rural and remote areas compared with major cities. These disparities in supply may relate to problems accessing medical services and medicines in rural and remote areas.

Patients in metropolitan areas, although healthier, were dispensed statins at twice the rate of those living in rural areas, and 30 times the rate of people in remote areas.

Prescriptions per 100,000 population



Source: AIHW analysis of data supplied by Australian Government Department of Health and Ageing DOHA from the Pharmaceutical Benefits Data System.

Prescriptions supplied for statins by region of patient residence

Some disparities reflect need

People with the least socioeconomic advantage were dispensed some cholesterol lowering agents (statins) and some clot preventing medicines at a higher rate compared with those with most advantage. This reflects the observed higher prevalence of cardiovascular disease and cardiovascular deaths in the least advantaged group.

People discontinuing their medicines

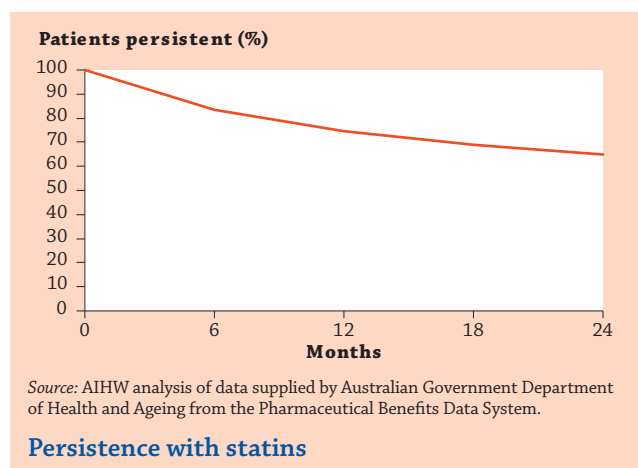
Medicines can only be effective if patients take them. However, many patients stop taking medicines that are intended to be taken long-term to prevent or treat cardiovascular disease:

- 14–27% of newly prescribed patients were dispensed one script only.
- 10–25% of newly prescribed patients had discontinued their medicines at 6 months from the start of therapy, rising to 21–47% at 24 months.

We do not know why so many people stop taking their medicines. Cost, medicine side effects, treating conditions with no symptoms, patients' lack of understanding of the condition or benefits of treatment, and complexity of therapy may all have contributed.

This failure to take prescribed medicines may represent a significant waste of resources and a lost opportunity to prevent cardiovascular disease or delay its progression and complications, with medicines known to be effective.

At 6 months from starting on statins, 17% of patients had discontinued therapy, and 35% had stopped at 24 months.



Safety concerns

Drug adverse events are problems with medicines that harm patients. Older people are at higher risk of adverse events and the known use of multiple medicines (including complementary medicines) among older people raises the potential for adverse medicine interactions.

- Medicines that may be used to prevent or treat cardiovascular disease were associated with 301 deaths in 2004 and in 29 of these cases they were the main cause of death.

- Adverse effects of these medicines were recorded in almost 28,500 hospitalisations in 2004–05 (0.4% of all hospitalisations), with most of these occurring in patients aged 65 years or over. This is probably an under-estimate as many adverse events are not detected or recorded.
- Anticoagulants were the medicines most commonly reported in cardiovascular drug adverse events causing hospitalisation or death.
- There were also reports of patients with hypertension taking medicines that could raise blood pressure.
- Home medicines reviews, with the potential to detect and prevent medicine related problems, are underused.
- Some national initiatives to reduce patient harm from medicines have achieved good results.

Data improvements needed

Care for people with chronic disease such as cardiovascular disease generally involves multiple health care providers across multiple settings, including general practice, community health, hospitals, private providers and community and non government organisations.

About 80% of Australians aged 65 years or over, the age group most affected by cardiovascular disease, have three or more chronic conditions. This affects their choice of treatment, risks and health outcomes.

The best data sources available are inadequate to fully assess whether medicines are used appropriately. National administrative data sources in their current form do not make enough information available to allow linking of patient records. The capacity to link health records to track information on individuals within and between datasets would enhance integrated provision of disease prevention and care across services, settings, sectors and over time, as well as support quality use of medicines and improvements in patient safety.

Expenditure

- Over 2001–05, government expenditure on 'cardiovascular system' medicines increased by 26%, while expenditure on 'blood' medicines rose by 56%.
- Among the top ten medicines (ranked by cost to the Australian Government in 2005) four were cardiovascular and blood medicines: three cholesterol lowering medicines (statins) and a clot preventing medicine (clopidogrel).

About the National Centre for Monitoring Cardiovascular Disease

The National Centre for Monitoring Cardiovascular Disease, within the Cardiovascular Disease and Diabetes Unit at the Australian Institute of Health and Welfare (AIHW), analyses data on cardiovascular disease and provides information on the number of people with heart disease, stroke and vascular diseases, their functioning and disability, use of health services, risk factors and deaths.

AIHW cardiovascular publications

Aboriginal and Torres Strait Islander people with coronary heart disease: further perspectives on health status and treatment

Cardiovascular Disease Series no. 25; AIHW cat. no. CVD 33.

Australia's Health 2006

AIHW cat. no. AUS 73.

Heart, stroke and vascular diseases, Australian facts 2004

Cardiovascular Disease Series no. 22; AIHW cat. no. CVD 27.

How we manage stroke in Australia

Cardiovascular Disease Series no. 24; AIHW cat. no. CVD 31.

Living dangerously, Australians with multiple risk factors for cardiovascular disease

AIHW bulletin no. 24; AIHW cat. no. AUS 57.

Socioeconomic inequalities in cardiovascular disease in Australia

AIHW bulletin no. 37; AIHW cat. no. AUS 74

AIHW CVD publications available free of charge at
<http://www.aihw.gov.au/cvd/publications.cfm>

Web links

Australian Commission on Safety and Quality in Health Care

<http://www.safetyandquality.org>

Australian Institute of Health and Welfare

<http://www.aihw.gov.au>

Home Medicines Review (HMR)

<http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-epc-dmmr.htm>

National Institute of Clinical Studies

<http://www.nicsl.com.au/asp/index.asp>

National Prescribing Service

<http://www.nps.org.au>

Pharmaceutical Health And Rational Use of Medicines (PHARM) Committee

<http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/nmp-advisory-pharm.htm>



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