

Issue date: January 2006

## **Statins for the prevention of cardiovascular events**

Understanding NICE guidance –  
information for people who have or  
are at increased risk of cardiovascular  
disease, their families and the public



## Ordering information

You can download the following documents from [www.nice.org.uk/TA094](http://www.nice.org.uk/TA094)

- This booklet.
- The full guidance on this appraisal.
- A short version for healthcare professionals – the quick reference guide.
- The assessment report – details of all the studies that were looked at.

For printed copies of the quick reference guide or information for the public, phone the NHS Response Line on 0870 1555 455 and quote:

- N0971 (quick reference guide)
- N0972 (information for the public).

### National Institute for Health and Clinical Excellence

MidCity Place  
71 High Holborn  
London  
WC1V 6NA

[www.nice.org.uk](http://www.nice.org.uk)

ISBN 1-84629-141-0

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## What is NICE guidance?

The National Institute for Health and Clinical Excellence (NICE) is the independent organisation responsible for providing national guidance on the promotion of good health and the prevention and treatment of ill health. One of NICE's roles is to produce guidance (recommendations) on the use of medicines, medical equipment, diagnostic tests and clinical and surgical procedures within the NHS.

To produce this guidance, NICE looks at how well the medicine, equipment or procedure works and also how well it works in relation to how much it costs. This process is called an appraisal. The appraisal process involves the manufacturer of the medicine or equipment for which guidance is being produced and the organisations that represent the healthcare professionals, patients and carers who will be affected by the guidance.

NICE was asked to look at the available evidence on the use of statins for the prevention of cardiovascular events. NICE was asked to provide guidance that will help the NHS in England and Wales decide when statins should be used.

## What are cardiovascular disease and cardiovascular events?

Cardiovascular disease (CVD) is disease of the heart and blood vessels, which can lead to cardiovascular events such as heart attack (myocardial infarction) and stroke. The most common form of CVD is coronary heart disease (CHD). In CHD the blood vessels that lead to the heart become narrowed or blocked, and this can result in angina and heart attack. Other forms of CVD are stroke, transient ischaemic attack and peripheral arterial disease. CVD is the most common cause of death in the UK, and is a major cause of illness, disability and reduced quality of life.

A person's risk of developing CVD can be estimated by using what is known as a risk calculator, or by clinical assessment where a suitable risk calculator is not available (such as for older people, people with diabetes or people in ethnic groups that have a high risk of CVD). Risk calculators combine various pieces of information about a person, such as their age and cholesterol levels, to help healthcare professionals decide a person's risk of developing a disease.

## What are statins?

There are two types of cholesterol in the body: high-density lipoprotein (HDL) and low-density lipoprotein (LDL). High LDL cholesterol levels are known to increase the risk of heart disease and stroke. Statins are medicines that help to lower LDL cholesterol levels in the blood. NICE looked at the five different statins atorvastatin, fluvastatin, pravastatin, rosuvastatin and simvastatin.

## What has NICE recommended on statins for the prevention of cardiovascular events?

During the appraisal, NICE's Appraisal Committee read and heard evidence from:

- good-quality studies of the statins atorvastatin, fluvastatin, pravastatin, rosuvastatin and simvastatin
- doctors with specialist knowledge of cardiovascular disease and its treatment
- individuals with specialist knowledge of the issues affecting people with or at increased risk of cardiovascular disease

- organisations representing the views of people who will be affected by the guidance (because they have, or care for someone with, the condition or because they work in the NHS and are involved in providing care for people with the condition)
- the manufacturers of atorvastatin, fluvastatin, pravastatin, rosuvastatin and simvastatin.

The evidence is summarised in the full guidance and additional information about the studies can be found in the assessment report for this appraisal (see 'Further information' section for details).

NICE has made the following recommendations about the use of statins to prevent cardiovascular events in adults within the NHS in England and Wales.

- All adults with clinical evidence of CVD should receive statin treatment. (This means adults who have had a heart attack or who have a condition such as angina or peripheral arterial disease.)
- Adults who have a 20% or greater risk of developing CVD in the next 10 years should receive statin treatment as part of their overall management strategy for the prevention of CVD. The risk should be estimated using an appropriate risk calculator or by clinical assessment of the patient's condition.
- In both of these cases, the decision whether to use statins should be made after the doctor and patient have discussed the risks and benefits of the treatment, and have considered other factors such as the life expectancy of the patient and any other illnesses or conditions they may have.
- When the decision to use statins has been made, treatment should usually start with a low-cost statin.

## What should I do next?

If you or someone you care for has or is at increased risk of CVD, you should discuss this guidance with your or their doctor or specialist.

## Will NICE review its guidance?

Yes. The guidance will be reviewed in November 2008.

## Further information

The NICE website ([www.nice.org.uk](http://www.nice.org.uk)) has further information about NICE and the full guidance on statins for the prevention of cardiovascular events that has been issued to the NHS. The assessment report, which contains details of the studies that were looked at, is also available from the NICE website. A short version of the guidance (a 'quick reference guide') is available on the website and from the NHS Response Line (phone 0870 1555 455 and quote reference number N0971).

You can find more information about coronary heart disease and stroke on the NHS Direct website ([www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)). You can also phone NHS Direct on 0845 46 47.



**National Institute for  
Health and Clinical Excellence**

MidCity Place  
71 High Holborn  
London  
WC1V 6NA

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N0972 1P 20k Jan 2006

ISBN 1-84629-141-0