# Complete Summary

## GUIDELINE TITLE

European guidelines on cardiovascular disease prevention in clinical practice.

## BIBLIOGRAPHIC SOURCE(S)

European guidelines on cardiovascular disease prevention in clinical practice. Eur J Cardiovasc Prev Rehabil 2003 Dec;10(Suppl 1):S1-78. [782 references]

## GUIDELINE STATUS

**Note**: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

## COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

Cardiovascular disease

### GUIDELINE CATEGORY

Management
Prevention
Risk Assessment

### CLINICAL SPECIALTY

Cardiology
Family Practice
Internal Medicine

## INTENDED USERS

Physicians

## GUIDELINE OBJECTIVE(S)

- To encourage the development of national guidance on cardiovascular disease prevention
- To address the role of lifestyle changes, the management of major cardiovascular risk factors, and the use of different prophylactic drug therapies in the prevention of clinical cardiovascular disease (CVD).
- To recommend a new model for total risk estimation based on the Systematic Coronary Risk Evaluation (SCORE) system
- To unite secondary and primary prevention by setting common lifestyles and risk factor goals for patients with established atherothrombotic disease and for those at high risk of developing these diseases.
- To make recommendations at the European level

## TARGET POPULATION

- Patients with established cardiovascular disease
- Asymptomatic patients at high risk for cardiovascular disease

## INTERVENTIONS AND PRACTICES CONSIDERED

### Risk Assessment/Prognosis

1. Systematic Coronary Risk Evaluation (SCORE) risk prediction system, considering age, gender, smoker status, systolic blood pressure, and cholesterol level
2. Blood studies, including plasma glucose, plasma homocysteine, and C-reactive protein along with other markers of inflammation
3. Family history of coronary heart disease
4. Assessment of psychosocial risk factors, including socio-economic status, social isolation, psychosocial stresses at work and outside work, hostility, and depression
5. New imaging studies to detect asymptomatic individuals at high risk, including carotid artery duplex scanning, computed tomography, ankle/brachial blood pressure ratios, and magnetic resonance imaging (MRI) techniques

### Management/Prevention

1. Smoking cessation
2. Increased physical activity
3. Weight reduction
4. Anti-hypertensive treatment
    - Diuretics
    - Beta-blockers
    - Angiotensin-converting enzyme inhibitors
    - Calcium-channel blockers
    - Angiotensin II antagonists

    - Alpha-blockers (doxazosin)
    - Monotherapy versus combination therapy
5. Antithrombotic therapy
    - Aspirin or other platelet-modifying drugs
6. Anti-coagulants
7. Dietary changes
8. Decreased alcohol consumption
9. Anti-hyperlipidemic agents
    - Statins (simvastatin, atorvastatin, pravastatin)
    - Fibrates (gemfibrozil)
    - Bile acid sequestrants (anion exchange resins)
    - Nicotinic acid and its derivatives
    - Monotherapy versus combination therapy
10. Hypoglycaemic drugs
    - Sulphonylurea
    - Biguanide
    - Insulin

### MAJOR OUTCOMES CONSIDERED

- Cardiovascular disease morbidity and mortality
- Survival rate
- Quality of life
- Risk of myocardial infarction, stroke, and coronary artery disease

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

### NUMBER OF SOURCE DOCUMENTS

Not stated

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

**Levels of Evidence**

A. Data derived from at least two randomized clinical trials or meta-analyses.

B. Data derived from a single trial and/or meta-analysis from nonrandomized studies
C. Consensus opinion of the experts based on trial and clinical experience

## METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

## DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

When in 2001 the Third Joint Task Force was asked to update the previous recommendations, the platform of Scientific Societies that makes the Third Joint Task Force was enlarged by inviting the European Association for the Study of Diabetes and the International Diabetes Federation Europe to join.

Indeed, it is now well recognised that atherothrombotic diseases are the greatest health threat to patients with diabetes. In EUROASPIRE II, 20% of all patients were known diabetics, another 9% were undetected with diabetes, and another 23% had impaired glucose tolerance The mortality follow-up of the EUROASPIRE I cohort revealed that, apart from smoking, diabetes is the most important risk factor for total, cardiovascular disease (CVD) and coronary heart disease (CHD) mortality in these coronary patients (EUROASPIRE I Mortality follow-up study, unpublished results). The Third Joint Task Force decided at the beginning to focus not only on the prevention of coronary heart disease but also on the prevention of other clinical manifestations of atherothrombotic disease including thrombotic stroke and peripheral artery disease.

The recommendations are dealing with prevention of cardiovascular disease in clinical practice. However, the Third Task force recognises the importance of population strategies at the national, regional, and global level. This approach is complementary to the prevention in clinical practice and is briefly addressed in the introduction in the original guideline document.

One of the criticisms of the recommendations of the First and Second Joint Task Forces is related to the model that was used for total coronary risk estimation. This was based on the results from the Framingham Study. The strengths and limitations of this model for application in populations with very different absolute risk of coronary heart disease are well known. The Third Task Force decided at the start of its work to adopt the results of SCORE for total coronary heart disease and cardiovascular disease risk estimations. The advantage of this is elaborated in the document.

Furthermore, the Third Joint Task Force has considered all new and published knowledge from the fields of preventive cardiology; a more systematic approach towards evidence based medicine has been applied. On the other hand we have tried to keep important steps such as risk estimation and risk factor management simple and user friendly. Finally, the need for an ongoing update was felt and initiatives are taken to answer that.

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

### Class of Recommendation

**Class I**: Conditions for which there is evidence for and/or general agreement that the procedure or treatment is useful and effective.

**Class II**: Conditions for which there is conflicting evidence and/or a divergence of opinion about the usefulness/efficacy of a procedure or treatment.

**Class IIa**: Weight of evidence or opinion is in favour of the procedure or treatment

**Class IIb**: Usefulness/efficacy is less well established by evidence or opinion.

**Class III**: Conditions for which there is evidence and/or general agreement that the procedure or treatment is not useful/effective and in some cases may be harmful.

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This guideline has been reviewed by experts, nominated by their societies, who were independent of the Task Force, including the Committee for Practice Guidelines Review Coordinator, and representatives from the following societies: European Association for the Study of Diabetes (EASD), International Diabetes Federation Europe (IDF-Europe), European Atherosclerosis Society (EAS), European Heart Network (EHN), European Society of Cardiology (ESC), European Society of Hypertension (ESH), International Society of Behavioral Medicine (ISBM), and European Society of General Practice/Family Medicine (ESGP/FM).

# RECOMMENDATIONS

## MAJOR RECOMMENDATIONS

**Note**: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary. The recommendations that follow are based on the previous version of the guideline.

**Medical Priorities**

The present recommendations define the following priorities for cardiovascular disease (CVD) prevention in clinical practice:

- Patients with established coronary heart disease, peripheral artery disease, and cerebrovascular atherosclerotic disease
- Asymptomatic individuals who are at high risk of developing atherosclerotic cardiovascular diseases because of:
    - Multiple risk factors resulting in a 10-year risk of $\geq$5% now (or if extrapolated to age 60) for developing a fatal CVD event
    - Markedly raised levels of single risk factors: cholesterol $\geq$8 mmol/l (320 mg/dl), low-density lipoprotein (LDL) cholesterol $\geq$6 mmol/l (240 mg/dl), blood pressure $\geq$180/110 mmHg
    - Diabetes type 2 and diabetes type 1 with microalbuminuria
- Close relatives of:
    - Patients with early onset atherosclerotic cardiovascular disease
    - Asymptomatic individuals at particularly high risk
- Other individuals encountered in routine clinical practice

**Total cardiovascular risk as a guide to preventive strategies: the Systematic Coronary Risk Evaluation (SCORE) system**

These guidelines recommend a new model for total risk estimation based on the SCORE System:

- The SCORE risk assessment system is derived from a large dataset of prospective European studies and predicts any kind of fatal atherosclerotic end-point (i.e., fatal CVD events over a 10 year period).
- In SCORE the following risk factors are integrated: gender, age, smoking, systolic blood pressure (SBP) and either total cholesterol or the cholesterol/high-density lipoprotein (HDL) ratio.
- Since this chart predicts fatal events, the threshold for being at high risk is defined as $\geq$5%, instead of the previous $\geq$20% in charts using a composite coronary endpoint.
- Refer to figures 1 and 2 and tables 1 and 2 to assess total CVD risk from printed charts.

**Management of CVD risk in clinical practice**

Strategic steps that may be used to enhance the effectiveness of behavioural counseling include (adapted from the Report of the US Preventive Services Task Force):

- Develop a therapeutic alliance with the patient.
- Ensure that patients understand the relationship between behaviour, health, and disease.

- Help patients to understand the barriers to behavioural change.
- Gain commitments from patients to behavioural change.
- Involve patients in identifying and selecting the risk factors to change.
- Use a combination of strategies including reinforcement of patients´ own capacity for change.
- Design a lifestyle modification plan.
- Monitor progress through follow-up contact.
- Involve other health care staff wherever possible.

*Stop smoking tobacco*

- Ask: systematically identify all smokers at every opportunity.
- Assess: determine the patient´s degree of addiction and his/her readiness to cease smoking.
- Advise: urge strongly all smokers to quit.
- Assist: agree on a smoking cessation strategy including behavioural counselling, nicotine replacement therapy, and/or pharmacological intervention.
- Arrange: schedule of follow-up visits.

*Make healthy food choices*

- Foods should be varied, and energy intake must be adjusted to maintain ideal body weight.
- The consumption of the following foods should be encouraged: fruits and vegetables, whole grain cereals and bread, low fat dairy products, fish, and lean meat.
- Oily fish and omega-3-fatty acids have particular protective properties.
- Total fat intake should account for no more than 30% of energy intake, and intake of saturated fats should not exceed a third of total fat intake. The intake of cholesterol should be less than 300 mg/day.
- In an isocaloric diet, saturated fat can be replaced partly by complex carbohydrates, partly by monounsaturated and polyunsaturated fats from vegetables and marine animals.

*Increase physical activity*

- Physical activity should be promoted in all age groups.
- Although the goal is at least half an hour of physical activity on most days of the week, more moderate activity is also associated with health benefits.
- 30 to 45 minutes, 4 to 5 times weekly at 60 to 75% of the average maximum heart rate
- For patients with established CVD, advice must be based on a comprehensive clinical judgement including the results of an exercise test

**Management of other risk factors**

*Overweight and obesity*

- Weight reduction is strongly recommended for obese people (body mass index [BMI] $\geq$30 kg/m$^2$) or overweight individuals (BMI $\geq$25 and <30 kg/m$^2$)

and for those with increased abdominal fat as indicated by waist circumference >102 cm in men and >88 cm in women

*Blood pressure*

- The decision to start treatment depends not only on the level of blood pressure, but also on an assessment of total cardiovascular risk and the presence or absence of target organ damage. In patients with established CVD the choice of antihypertensive drugs depends on the underlying cardiovascular disease.
    - Drug therapy should be initiated promptly in individuals with a sustained SBP $\geq$180 mmHg and/or a diastolic blood pressure (DBP) $\geq$110 mmHg regardless of their total cardiovascular risk assessment.
    - Individuals at high risk of developing CVD with sustained SBP of $\geq$140 mmHg and/or DBP $\geq$90 mmHg also require drug therapy. For such individuals, drugs should be used to lower blood pressure to <140/90 mmHg.
    - Similar elevation of blood pressure in low-risk people without target organ damage should be followed closely, and lifestyle advice should be given. Drug treatment might be considered after asking the patients´ preference.
    - With few exceptions, individuals with SBP< 140 mmHg and/or DBP <90 mmHg do not need drug therapy.
    - Patients with a high or very high cardiovascular risk profile and patients with diabetes can benefit from reducing blood pressure below the goal of SBP<140 mmHg and/or DBP <90 mmHg.
- Antihypertensive drugs should not only lower blood pressure effectively. They should have a favourable safety profile and be able to reduce cardiovascular morbidity and mortality.
- For most patients, the goal of therapy is blood pressure less than 140/90 mmHg, but for patients with diabetes and individuals at high total CVD risk, the blood pressure goal should be lower.

*Plasma lipids*

- In general, total plasma cholesterol should be below 5 mmol/l (190 mg/dl), and LDL cholesterol should be below 3 mmol/l (115 mg/dl).
- For patients with clinically established CVD and patients with diabetes, the treatment goals should be lower: total cholesterol <4.5 mmol/l (175 mg/dl) and LDL cholesterol <2.5 mmol/l (100 mg/dl)
- Asymptomatic people at high multifactorial risk of developing cardiovascular disease, whose untreated values of total and LDL cholesterol are already close to 5 and 3 mmol/l, respectively, seem to benefit from further reduction of total cholesterol to <4.5 mmol/l (175 mg/dl), and from further reduction of LDL cholesterol to <2.5 mmol/l (100 mg/dl), with moderate doses of lipid-lowering drugs.
- In asymptomatic individuals, the first step is to assess total cardiovascular risk and to identify these components of risk that are to be modified.
    - If the 10-year risk of cardiovascular death is <5% and will not exceed 5% if the individual´s risk factor combination is projected to age 60, professional advice concerning a balanced diet, physical activity, and stopping smoking should be given to keep the cardiovascular risk low.

    - Risk assessment should be repeated at 5-year intervals.
    - Note that assessment of total risk does not pertain to patients with familial hypercholesterolemia, since total cholesterol >8 mmol/l (320 mg/dl) and LDL cholesterol >6 mmol/l (240 mg/dl) by definition places a patient at high total risk of CVD.
- If the 10-year risk of cardiovascular death is ≥5%, or will become ≥ 5% if the individual´s risk factor combination is projected to age 60, a full analysis of plasma lipoproteins should be performed, and intensive lifestyle advice, particularly dietary advice, should be given.
- In contrast, if total risk remains ≥5%, lipid lowering drug therapy should be considered to lower total and LDL cholesterol even further.
    - The goals in such persistently high-risk individuals are to lower total cholesterol to <4.5 mmol/l (175 mg/dl) and to lower LDL cholesterol to <2.5 mmol/l (100 mg/dl).
    - These lower values are not goals of therapy for patients with higher untreated values.
- In some patients, goals cannot be reached even on maximal therapy, but they will still benefit from treatment to the extent to which cholesterol has been lowered.

*Diabetes*

- It has been demonstrated that progression to diabetes can be prevented or delayed by lifestyle intervention in individuals with impaired glucose tolerance.
- Regarding the prevention of cardiovascular events, there are also good reasons to aim for good glucose control in both types of diabetes.
    - In type 1 diabetes, glucose control requires appropriate insulin therapy and concomitant professional dietary therapy.
    - In type 2 diabetes, professional dietary advice, reduction of overweight, and increased physical activity should be the first treatment aiming at good glucose control.
- Drug therapy must be added if these measures do not lead to a sufficient reduction of hyperglycemia.
- Recommended treatment targets for type 2 diabetes are:
    - Haemaglobin A1c: ≤6.1%
    - Venous plasma glucose (fasting/preprandial): ≤6.0 mmol/l; <110 mg/dl
    - Self-monitored blood glucose
        - Fasting/preprandial: 4.0 to 5.0 mmol/l; 70 to 90 mg/dl
        - Postprandial: 4.0 to 7.5 mmol/l; 70 to 135 mg/dl
    - Blood pressure: <130/80 mmHg
    - Total cholesterol: <4.5 mmol/l; <175 mg/dl
    - LDL cholesterol: <2.5 mmol/l; <100 mg/dl

*Metabolic syndrome*

- The diagnosis of the metabolic syndrome is made when three or more of the following features are present:
    - Waist circumference >102 cm in males, >88 cm in females
    - Serum triglycerides ≥1.7 mmol/l (≥150 mg/dl)

    - HDL cholesterol <1 mmol/l (<40 mg/dl) in males or <1.3 mmol/l (<50 mg/dl) in females.
    - Blood pressure ≥130/85 mmHg.
    - Plasma glucose ≥6.1 mmol/l (≥110 mg/dl).
- People with the metabolic syndrome are usually at high risk of cardiovascular disease
- Lifestyle has a strong influence on all the components of the metabolic syndrome and therefore the main emphasis in the management of the metabolic syndrome should be in professionally supervised lifestyle changes, particularly efforts to reduce body weight and increase physical activity.
- Elevated blood pressure, dyslipidemia, and hyperglycemia (in the diabetic range) may, however, need additional drug treatment as recommended in the present guidelines.

*Other prophylactic drug therapies*

- In addition to drugs needed to treat blood pressure, lipids, and diabetes, the following drug classes should also be considered in the prevention of CVD in clinical practice:
    - Aspirin or other platelet-modifying drugs in virtually all patients with clinically established CVD
    - Beta-blockers in patients following myocardial infarction or with left ventricular dysfunction due to coronary heart disease (CHD)
    - Angiotensin-converting enzyme (ACE) inhibitors in patients with symptoms or signs of left ventricular dysfunction due to CHD and/or arterial hypertension
    - Anti-coagulants in those patients with CHD who are at increased risk of thromboembolic events
    - In asymptomatic high risk people there is evidence that low-dose aspirin can reduce the risk of cardiovascular events in people with diabetes, in people with well controlled hypertension, and in men at high multifactorial CVD risk.

*Screening close relatives*

- Close relatives of patients with premature coronary heart disease (men <55 years and women <65 years) and persons who belong to families with familial hypercholesterolemia or other inherited dyslipidemias should be examined for cardiovascular risk factors, because all of these persons are at increased risk of developing cardiovascular disease.

### CLINICAL ALGORITHM(S)

Algorithms are provided in the original guideline document for blood pressure management and for lipid management in asymptomatic subjects.

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

All new and published knowledge from the field of preventive cardiology was considered, particularly results from recent clinical trials showing clinical benefit of dietary changes, of good management of risk factors, and of the prophylactic use of certain drugs. This includes data on usage of certain drugs in elderly subjects and in subjects at high risk with a relatively low total cholesterol level.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Reduction in the incidence of first or recurrent clinical events due to coronary heart disease, ischaemic stroke, and peripheral artery disease
- Prevention of disability and early death
- Prevention of clinical cardiovascular disease

### POTENTIAL HARMS

Side effects of recommended medications are discussed in the original guideline document in the context of compliance and limitations of use.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

These guidelines represent the view of the Third Joint Task Force on cardiovascular disease prevention in clinical practice. They were endorsed by the different societies. Health professionals are expected to take them fully into account when exercising their clinical judgement. These guidelines do not, however, override the individual responsibility of health professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with that patient, and when appropriate and necessary, the patient´s guardian or carer.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

**Implementation of evidence-based treatments: the role of guidelines and recommendations**:

The risk to develop a first or recurrent manifestation of atherosclerotic disease can be lowered by changes in lifestyle and by pharmacotherapeutic interventions. The Euroaspire I and II studies have demonstrated that a more complete implementation of existing guidelines will increase life expectancy and quality of life in most European countries.

Guidelines, recommendations, and expert consensus documents are all intended to help the clinician choose the appropriate therapy for a patient with a certain medical condition. As a rule such documents are based on the evidence provided

by the outcome of controlled clinical trials or, if this is not available, on consensus between experts.

Despite the fact that guidelines and recommendations exist for the treatment of most common conditions in cardiology, it has been found in national and international hospital-based surveys, that many patients do not receive the therapy appropriate for their condition. On the other hand, several small and large outcomes studies show that under well-controlled conditions almost all patients may well receive appropriate therapy. The guideline developers use the term "implementation" as indicating the goal that each patient receives treatment in accordance with the existing guideline for the diagnosis under consideration, unless a medical reason exists to withhold the appropriate therapy. In this sense, implementation is either complete or incomplete.

**Barriers to the implementation of evidence-based treatment guidelines**:

Incomplete implementation of the appropriate therapy may have several causes. Some causes have to do with inadequacies of medical management, some with circumstances not within control of doctors, and sometimes the patient just does not fit the profile. Recently, three types of barriers to the implementation of evidence-based treatment guidelines have been suggested: a physician-related, a patient-related, and a healthcare-related barrier. [Refer to table 26 in the original guideline document for more detail on these barriers].

- *Physician-related barriers to the implementation of evidence-based treatment*:

  Lack of knowledge of the existence of a particular guideline may result in the application of a less then appropriate therapy. It is of great importance that the existence of guidelines is widely communicated and that existing guidelines are easily accessible. The Internet provides an excellent tool, but it is also conceivable that guideline information is installed in smaller hand-held devices. Still, the physician has to develop the routine to check the guideline when a new diagnosis is to be matched by therapy. At the same time, the guideline-providing institution has the responsibility to ensure that existing guidelines are up-to-date as well as state-of-the-art.

  A guideline is based on the available scientific evidence. The guideline, however, does not necessarily always fit the situation of a given patient. Even under ideal circumstances, the guideline may be difficult to interpret. On top of this, a guideline may be difficult to interpret because of unwanted ambiguity. The communicative aspects of any guideline should be given sufficient attention.

  When the availability of time is the critical factor, as will be the case in many hospitals and primary care practices, and when guideline application is not part of an established routine, patients may not always receive guideline-conformed medical care.

  Lastly, a physician can have good reasons to withhold the therapy suggested by a guideline. Or the patient may have reasons to refuse a certain

treatment. The available reports on the implementation of guidelines give little information on the underlying rationale for not following the guideline.

- *Physician-related methods to improve implementation*:

  A systematic review of the literature executed several years ago concludes that the application of guidelines in a setting of rigorous control gives the best chances to improve clinical practice. A recent study of the care of patients with acute myocardial infarction concludes that the "implementation of guideline-based tools may facilitate quality improvement among a variety of institutions, patients and caregivers." The shared conclusion here is that a guideline in itself is not the ultimate instrument to improve clinical care. The guideline needs a tool, or a setting, to realise its full potential.

  One way to implement a guideline in a well-defined clinical setting, for example the treatment of acute coronary syndromes, can be to use the daily multidisciplinary group rounds. Another way is to create a "tool kit" and engage nurse and physician opinion leaders as well.

  Treatment protocols, developed from evidence-based guidelines, can be used in circumstances where strict adherence to the rules for limited periods of time is essential for the quality of the care, for example in the intensive care unit.

  A novel way to implement guidelines in patients with uncomplicated illnesses who are undergoing procedures or surgery is the use of critical pathways. Critical pathways are management plans that "display goals for patients and provide the corresponding ideal sequence and timing of staff actions for achieving those goals with optimal efficiency". Recently, the use of critical pathways for the implementation of evidence-based treatments has been critically reviewed. At this moment, more research into the added value of the use of critical pathways, clearly is necessary.

- *Patient-related options to improve implementation*:

  Patient-related barriers to implementation in which the physician can play a role are related to polypharmacy and compliance with medication and to behavioural changes. For behavioural changes in particular, the reader is referred to the chapter on "Behaviour change and management of behavioural risk factors" in the original guideline document.

- *Health care-related barriers to the implementation*:

  Some of the health care system—related barriers cannot be changed by the individual physician for whom these guidelines are written; others can be influenced by a better organisation in primary care practice and in the hospital.

**The role of the National Societies**:

The members of the Third Joint Task Force on Cardiovascular Disease Prevention in Clinical Practice expect that the National Societies and individual physicians will be actively engaged in the process to make these guidelines (or adapted ones) part of the standard daily clinical practice.

The Third Joint Task Force also fully subscribes to the need of a continuous evaluation of the relation between guideline developments, implementation programmes, and daily practice as addressed by the European Society of Cardiology.

### IMPLEMENTATION TOOLS

Clinical Algorithm
Personal Digital Assistant (PDA) Downloads
Pocket Guide/Reference Cards
Slide Presentation

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better
Living with Illness
Staying Healthy

### IOM DOMAIN

Effectiveness
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

European guidelines on cardiovascular disease prevention in clinical practice. Eur J Cardiovasc Prev Rehabil 2003 Dec;10(Suppl 1):S1-78. [782 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2003 Dec

### GUIDELINE DEVELOPER(S)

European Society of Cardiology - Medical Specialty Society

## SOURCE(S) OF FUNDING

The European Society of Cardiology Committee for Practice Guidelines

## GUIDELINE COMMITTEE

Task Force of European and other Societies on Cardiovascular Disease Prevention in Clinical Practice

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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## FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

## ENDORSER(S)

Albanian Society of Cardiology - Medical Specialty Society
Armenian Society of Cardiology - Medical Specialty Society
Association of Cardiologists of Bosnia & Herzegovina - Medical Specialty Society

Austrian Cardiologists Association - Medical Specialty Society
Belgian Society of Cardiology - Medical Specialty Society
Cardiology Society of Serbia and Montenegro - Medical Specialty Society
Croatian Cardiac Society - Medical Specialty Society
Cyprus Society of Cardiology - Medical Specialty Society
Czech Society of Cardiology - Medical Specialty Society
Estonian Society of Cardiology - Medical Specialty Society
Finnish Cardiac Society - Medical Specialty Society
French Society of Cardiology - Medical Specialty Society
German Society of Cardiology - Medical Specialty Society
Hellenic Cardiological Society - Medical Specialty Society
Hungarian Society of Cardiology - Medical Specialty Society
Latvian Society of Cardiology - Medical Specialty Society
Lithuanian Society of Cardiology - Medical Specialty Society
Netherlands Society of Cardiology - Medical Specialty Society
Polish Cardiac Society - Medical Specialty Society
Portuguese Society of Cardiology - Medical Specialty Society
Romanian Society of Cardiology - Medical Specialty Society
San Marino Society of Cardiology - Medical Specialty Society
Slovak Society of Cardiology - Medical Specialty Society
Swiss Society of Cardiology - Medical Specialty Society
Tunisian Society of Cardiology - Medical Specialty Society
Ukrainian Society of Cardiology - Medical Specialty Society

## GUIDELINE STATUS

**Note**: This guideline has been updated. The National Guideline Clearinghouse (NGC) is working to update this summary.

## GUIDELINE AVAILABILITY

Electronic copies of the updated guideline: Available from the European Society of Cardiology (ESC) Web site.

Print copies: Available from Elsevier Publishers Ltd. 32 Jamestown Road, London, NW1 7BY, United Kingdom. Tel: +44.207.424.4422; Fax: +44 207 424 4515; E-mail: gr.davies@elsevier.com.

## AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- European guidelines on cardiovascular disease prevention in clinical practice. Executive summary. Eur Heart J 2003; 24:1601-10. Available in Portable Document Format (PDF) from the European Society of Cardiology (ESC) Web site.
- European guidelines on cardiovascular disease prevention in clinical practice. Education slides. Updated version – 2003 Dec. Available in Portable Document Format (PDF) from the ESC Web site.
- Cardiovascular disease prevention. Pocket guidelines. Order form available in Portable Document Format (PDF) from the ESC Web site. Also available for PDA download from the ESC Web site.

- Recommendations for Task Force Creation and Report Production. A document for Task Force members and expert panels responsible for the creation and production of Guidelines and Expert Consensus Documents. 2002 Apr. Electronic copies: Available in Portable Document Format (PDF) from the ESC Web site.

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### PATIENT RESOURCES

None available

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