

**Editors**

E.E. van der Wall <i>chairman</i>	Leiden
P.A.F.M. Doevendans	Utrecht
M.J.M. Cramer	Nieuwegein, Utrecht
A.A.M. Wilde	Amsterdam
F. Zijlstra	Groningen

**Editorial Board**

J.J. Bax	Leiden
F.W.H.M. Bär	Maastricht
M.J. de Boer	Zwolle
H.A. Bosker	Arnhem
A.J.M. Cleophas	Dordrecht
H.J.G.M. Crijns	Maastricht
P.J. de Feyter	Rotterdam
W.H. van Gilst	Groningen
R.N.W. Hauer	Utrecht
N.M. van Hemel	Utrecht
T.E.H. Hooghoudt	Nijmegen
W. Jaarsma	Utrecht
J.W. Jukema	Leiden
J.L.M. Jordaens	Rotterdam
J.H. Kirkels	Utrecht
A. van der Laarse	Leiden
M.G. Niemeyer	Groningen
L. Noyez	Nijmegen
T. Op 't Hof	Utrecht
N.H.J. Pijls	Eindhoven
J.H.C. Reiber	Leiden
A.C. van Rossum	Amsterdam
J.J. Schipperheyne	Leiden
P.W.J.C. Serruys	Rotterdam
M.L. Simoons	Rotterdam
J.L.R.M. Smeets	Maastricht
D.J. van Veldhuisen	Groningen
F.W.A. Verheugt	Nijmegen
C.A. Visser	Amsterdam
H.W. Vliegen	Leiden
E.F.D. Wever	Nieuwegein
R.J. de Winter	Amsterdam
P.A. van Zwieten	Amsterdam

V. Manger Cats	NHS
W. Agema	Junior Chamber
H.R. Michels	CVOI

**International Advisory Board**

A. Battler	Tel Aviv, Israel
B.W. Frye	Rochester, US
A. Moss	Rochester, US
U.P. Sechtem	Stuttgart, Germany
T. Tak	Temple, US
S.R. Underwood	London, UK
F.J. Wackers	New Haven, US

# Risk management in patients with atherosclerosis: the toothbrush or the drill

**F**ew topics in medicine are supported by so much clinical evidence as the prevention of new atherosclerotic events in patients who have experienced a complication of the disease.

With optimal correction of the classic risk factors, including hypertension, smoking, diabetes, obesity, a sedentary lifestyle and dyslipidaemia, the risk of recurrences can be reduced by 75 to 80%.<sup>1,2</sup> This may be the most optimistic estimation, but even if not all risk can be eliminated the reductions in mortality and morbidity are likely to be significant. The implementation of these established interventions into practice is likely to be much more effective at the level of the population than the development of new, better but costly drug therapies. There is broad consensus among healthcare professionals regarding the effectiveness of prevention, and there are guidelines on this subject from American and European professional societies.

Still, secondary prevention is not given a great deal of priority. In observational studies in several Western European countries, including the Netherlands, a large proportion of patients who are eligible for preventive measures were found not to be receiving adequate counselling or medication from their specialist.<sup>3</sup> The problem extends across all medical and surgical specialities that treat patients with atherosclerotic disease, including neurology, vascular surgery, internal medicine and cardiology. In a wider perspective, the problem includes primary prevention. Preventive measures in high-risk subgroups, including the modification of unhealthy lifestyles, are highly effective investments in the future health of these individuals, and these interventions are more cost-effective than the high-cost treatments that we are currently offering patients in the late stages of established atherosclerotic disease. As these high-risk individuals frequently have subclinical but detectable arterial disease, it has been argued that the terms 'primary' and 'secondary' prevention are in fact inappropriate. Thus, the term 'risk management' may be preferable.

The reasons why clinicians perform better in curative medicine than in prevention remain largely unknown. Explanations that are suggested in the literature include lack of time, lack of discipline, lack of interest and lack of incentive.<sup>4</sup> In contrast to the care that is directed at the chief complaint of the patient, preventive actions receive less appreciation from patients and little or no remuneration from those who pay us for our services. The situation may be compared with the field of dentistry. Filling cavities is rewarding, counselling on oral hygiene is not. But here too, the drill is an unfortunate necessity that may be avoided by a healthy lifestyle and daily preventive measures. Similar to brushing your teeth, which is now widely accepted, the notion of daily care of one's arteries would be quite appropriate.

Given the general focus on curative interventions it may be more effective to start, at an institutional level, structural and uniform programmes of guideline implementation which are less dependent on the individual physician's initiative. Randomised studies have shown such programmes to be feasible, and they can be effective even in elderly patients.<sup>5</sup> In type 2 diabetic patients randomised to a structured programme of coaching and secondary prevention, the incidence of acute myocardial infarction, stroke

**Management, editorial office,  
advertising sales and administration**

Mediselect bv  
PO Box 63, 3830 AB Leusden,  
The Netherlands  
Tel.: +31-33-422 99 00  
Fax: +31-33-422 99 22  
E-mail: info@mediselect.nl

ISSN 0929-7456

Netherlands Heart Journal is published eleven times a year by Mediselect, the Netherlands Heart Foundation and the Netherlands Society of Cardiology. Netherlands Heart Journal is the official journal of the Netherlands Society of Cardiology.

Netherlands Heart Journal is made available to cardiologists, cardiologists in training, cardiopulmonary surgeons, cardiopulmonary surgeons in training, internists and paediatric cardiologists.

The Editorial Board is independent. The opinions expressed by the Editorial Board and the authors of articles are not necessarily those of the Netherlands Heart Foundation, the Netherlands Society of Cardiology or the Publisher. The content of the Nieuwsbrief and the CVOI section does not fall under the responsibility of the Chief Editors.

Circulation: 2900 copies.

**Subscriptions**

Annual rates for companies and institutions €102,90; for personal subscribers €90,30 Price per issue €12,50 excl. postage costs. All prices include value added tax (VAT). Other rates on request. Subscriptions can commence at any moment. The first subscription period runs until the end of the calendar year; the subscription is subsequently renewed automatically for a further year. Cancellations should be made, in writing, to the Publisher at least two months before the start of the new subscription period.

©2004 Mediselect  
All Rights Reserved. No part of this publication may be reproduced, stored in retrieval, or transmitted in any form or by any other means, electronic, mechanical, photocopying, recording or otherwise, without prior permission, in writing, of the Publisher.

The Editorial Board and Publisher will not be responsible for the content of the articles published under an author's name or of the advertisements.

Mediselect publishes Netherlands Heart Journal, Nederlands Tijdschrift voor Heelkunde, Tijdschrift voor Huisartsgeneeskunde, Praktijkmanagement, Apotheekmanagement.online, Lijfblad, Nederlands Tijdschrift voor Calcium- en Botstofwisseling, Tijdschrift voor Cardiologie (B), Journal de Cardiologie (B), Clinical Cases (Int) and The European Journal of General Practice (Int).

Mediselect also produces patient information folders, organises congresses and symposia, and provides marketing-supporting activities.



mediselect bv

and mortality was reduced by no less than 50% in eight years compared with a group receiving regular clinical care.<sup>6</sup> The extent of the intervention in these studies may be difficult to copy in daily practice; however these figures do demonstrate that structured prevention can lead to significant reductions in clinically relevant 'endpoints'.

In addition to randomised trials, observational data are also available. In the western United States, around 30 medical centres are associated with the financial structure of the Kaiser Permanente Health Maintenance Organisation. This HMO boasts an ambitious programme of standardised care and preventive medicine, which includes reminders (prompts on the computer screen) about preventive treatments each time a patient is seen by a physician from one of these institutions. Adherence to the guidelines is rewarded, underperformance may lead to reduced financial compensation. Compared with other institutions in California, heart disease mortality is 30% lower in Kaiser Permanente institutions.<sup>7</sup>

An alternative approach is to create nurse-led clinics for atherosclerotic risk management. Nurse practitioners have been successfully introduced in the care of diabetics, HIV patients and heart failure patients. Legally, these nurses act under the responsibility of the physicians who have authored the protocols. Recently, a randomised study demonstrated a mortality benefit within one year from a nurse-led heart failure clinic compared with regular care.<sup>8</sup>

In the Netherlands, nurse-led risk management programmes have been started in several hospitals. They may be part of the department of cardiology or they may be based on a multispeciality collaboration. All programmes are currently dependent on grants and sponsoring. In this country, there is no fee for patient visits to nurse practitioners. Consequently, long-term continuity is as yet insecure. As in many other examples, the financial structure of our medical system lags behind the innovations that are introduced into practice.

In every medical institution, the issue of preventive management of patients with atherosclerotic disease should be addressed. The Netherlands Heart Foundation supports the development of standardised care of patients with atherosclerosis, and is preparing a conference on the subject for the second quarter of 2004. Some centres may prefer to combine a risk management clinic with a 'vascular clinic' which offers streamlined curative care for vascular patients in general. Other centres may decide to create a dedicated risk management clinic, led by nurses, physicians or both. These choices will depend on local circumstances and preferences. Most importantly, however, risk management should be given appropriate priority. ■

R.J.G. Peters.

*Department of Cardiology, Academic Medical Centre, Amsterdam.*

**References**

- 1 Yusuf S. Two decades of progress in preventing vascular disease. *Lancet* 2002;**360**:2-3.
- 2 Wald MJ, Law MR. A strategy to reduce cardiovascular disease by more than 80%. *Br Med J* 2003;**326**:1419.
- 3 EUROASPIRE I and II Group; European Action on Secondary Prevention by Intervention to Reduce Events. Clinical reality of coronary prevention guidelines: a comparison of EUROASPIRE I and II in nine countries. *Lancet* 2001;**31**:995-1001.
- 4 Feijter PJ De. Waarom zijn we zo hardleers? *Cardiologie* 1999;**12**:593.
- 5 Strandberg TE, Pitkala K, Berglund S, et al. Possibilities of multifactorial cardiovascular disease prevention in patients aged 75 and older: a randomised controlled trial. *Eur Heart J* 2003;**24**:1216-22.
- 6 Gaede P, Vedel P, Larsen N, et al. Multifactorial intervention and cardiovascular disease in patients with type 2 diabetes. *N Engl J Med* 2003;**348**:383-93.
- 7 Brindis RG, Sennett C. Physician adherence to clinical practice guidelines: does it really matter? *Am Heart J* 2003;**145**:13-5.
- 8 Strömberg A, Mårtensson J, Fridlund B, et al. Nurse-led heart failure clinics improve survival and self-care behaviour in patients with heart failure. Results from a prospective, randomized trial. *Eur Heart J* 2003;**24**:1014-23.