Special Report

Cardiovascular Specialty Societies and the Emerging Global Burden of Cardiovascular Disease

A Call to Action

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Recently available data on the global burden of disease document, perhaps for the first time, that cardiovascular disease (CVD) has achieved the dubious status of the leading cause of death worldwide. Coronary heart disease and stroke have dominated the mortality figures for Western Europe, North America, and Australia/New Zealand for many decades, extending to Eastern Europe more recently. However, the emergence of CVD as the major cause of death in the world’s most populous regions, such as China and India, along with falling death rates from infectious and parasitic diseases in these countries are clearly the reasons for the elevation of CVD as the leading cause of death globally. Additional data from South and Central America, the Middle East and North Africa, and Southeast Asia confirm these trends. Moreover, projections of mortality based on population increases and increased life expectancy suggest that CVD will be the leading cause of mortality in all parts of the world by the year 2020, with the exception of sub-Saharan Africa. Some of us believe that even these estimates may be optimistic, with additional CVD occurring due to the increase in tobacco use, obesity, sedentary lifestyle, and an atherogenic diet in countries of increasing affluence; interaction of these new risk factors with presently prevalent risk factors such as hypertension; and the genetic predisposition of certain subgroups (such as South Asians) to CVD when placed in industrial societies. Indeed, conversations with colleagues from far-flung corners of the globe confirm the rising numbers of patients with coronary disease and stroke at relatively young ages now populating hospital wards and intensive care units. These cardiovascular specialists in lesser developed countries will likely not only be faced with increasing numbers of patients with acute and chronic manifestations of CVD but will also lack the extensive (and expensive) resources used to combat the disease in more affluent countries.

How should cardiovascular specialty societies respond to this developing crisis? To address this question, a satellite symposium was organized in conjunction with the Fourth International Conference on Preventive Cardiology, held in Montreal, Quebec, on June 28, 1997. The overall goal of the symposium was to organize, coordinate, and enhance the efforts of cardiovascular specialty societies from around the world to improve the identification and management of cardiovascular risk factors in patients at high risk for vascular disease. Approximately 50 invited representatives from all six continents and a large number of national and international professional societies attended the symposium. The format of the meeting was to have speakers provide an overview on major issues, followed by reactions of a panel of distinguished experts representing a variety of international and professional constituencies. Three major themes were presented: (1) the barriers and opportunities for improving risk factor interventions, (2) the role of cardiovascular specialty societies in improving these risk factor management practices, and (3) the need to influence governments to take a more active role in promoting cardiovascular risk factor management in developing countries.

Dr Sidney Smith (University of North Carolina School of Medicine) discussed the array of barriers that have been identified in the United States and Europe that make the management of risk factors difficult. These barriers are at the level of the patient; the provider, hospital, or clinic; and society. A discussion panel consisting of Drs Ian Graham (Ireland), Jonathan A. Matenga (Zimbabwe), Salim Yusuf (Canada), and Ingrid G. Martin (World Health Organization) then provided their international perspectives on these barriers. A clear problem is a lack of data on the management of CVD in many countries, including mortality statistics, rudimentary estimates of levels of risk factors and their associations with CVD in specific populations, the quantification of practice patterns related to both prevention and case management, and especially the cost-effectiveness of preventive interventions in those specific healthcare systems. In some areas, the gradual development of the CVD epidemic has gone unrecognized, resulting in little change in education and practice. The education of health professionals also continues to emphasize the treatment of acute illness or the “reacting to illness rather than the sustaining of health.” Educational programs frequently do not provide the skills necessary to be effective in risk factor counseling, cost-effective use of pharmacological agents, etc. Moreover, there is a reluctance by physicians to surrender control of preventive care to other professionals or teams of professionals. At the same time, high technology, whether cost-effective or not, is extremely seductive, especially when...
viewed as “state of the art” by colleagues in affluent countries. In many instances, there is little involvement of industry in preventive care compared with acute care management. This is compounded by a lack of clear guidelines about the use of preventive or case management strategies or by controversial guidelines that serve to confuse rather than inform. Finally, preventive services are often not reimbursed by governmental funding sources, which have yet to recognize CVD as a major local problem. Cardiovascular specialists at these societies also lack skills as policy makers to bring about change in reimbursement policy as the CVD epidemic emerges.

Professor David Wood (United Kingdom) then presented his perspectives of the potential role(s) for cardiovascular specialty societies in overcoming these barriers. He listed six opportunities for involvement: (1) leadership in prevention in relation to members of the societies and to the public at large; (2) advocacy with a dispassionate voice to review evidence without a vested interest; (3) recommendations for guidelines that can be adopted as professional standards and disseminated to members; (4) evaluation of these guidelines, both in terms of their level of current use and the barriers to their implementation; (5) education and training in preventive strategies as required for professional certification; and (6) research as to the basic science, epidemiology, clinical trials, or implementation of strategies related to risk factor management.

An expert panel responded to Dr Wood’s comments. This panel included Drs Gilles Dagenais (Canada, Canadian Society of Cardiology), Martha Hill (United States, American Heart Association), Antonio Bayes de Luna (Spain, International Society and Federation of Cardiology), Edgardo Escobar (Chile, InterAmerican Society of Cardiology), Walinjom Muna (Cameroon, Pan African Society of Cardiology), and Susanne Logstrup (Belgium, European Heart Network). Current activities by the continental societies paralleled those suggested by Dr Wood. These included educational activities, especially undergraduate, and continuing education of their members in CVD risk-reduction skills. Society journals may be an especially effective medium for this purpose. International societies might promote traveling fellowships in preventive cardiology to train future leaders in this field. Continental and national societies should lead these training efforts. Societies also serve as a useful means to engage industries with vested interests in prevention, including their support for educational programs and their involvement in consensus conferences and advocacy groups. Cardiovascular specialty societies may also take a lead in proposing, if not performing, research in local cardiovascular disease control. Societies in developing countries should lobby for studies to identify and quantify the burden of CVD in these countries. One challenge in Africa is to raise awareness of an emerging CVD epidemic even before its arrival. This advocacy includes the continued presence in national, regional, and international organizations (eg, World Health Organization) to obtain accurate data on the burden of disease. Additional efforts may be focused on the development of locally relevant risk factor profiles so priorities can be set. Another important function of professional societies in both developed and developing countries is the formulation of standards and guidelines. There is a great need to combine the large number of guidelines currently available on prevention.

These guidelines should remain modifiable for local conditions and emphasize best practices and cost-effectiveness. National societies should collaborate with continental and international societies to produce consistent yet locally relevant guidelines for prevention. Professional societies can also take a lead role in describing the appropriate use of high technology, perhaps recognizing the minimal amount of technology that is still adequate for the most cost-effective care of the patient with vascular disease. A final role for cardiovascular specialty societies is in public advocacy and political activities to educate governments about the impending burden of CVD, the importance of research, and the need for specific governmental policies to control the epidemic. Specialty societies can make recommendations on scientific and professional grounds and serve as effective countermeasures to commercial interests such as tobacco and high-fat foods, which are increasingly effective in changing lifestyle behaviors in developing countries.

Dr Prabhut Jha (World Bank) was the final speaker, describing the role of governments in the control of the CVD epidemic. Many developing countries are presently occupied with the “unfinished agenda,” namely, the continued need to control infectious, nutritional, and perinatal diseases. Professional societies need to alert governments about the impending change in disease profiles so that planning and prioritization can occur proactively rather than reactively. Research is a key reason for increases in life expectancy around the world. Research funded by governments can serve to stimulate local efforts. Governments should be lobbied to establish specific policies that have large effects on national risk factor profiles; such political activity may be needed to counteract the influences of commercial groups invested in disseminating atherogenic lifestyles. Examples of such policies include taxation and control of tobacco, removal of subsidies for meat and fat production, and reimbursement for cost-effective behavioral lifestyle interventions. Finally, national science policies should support research and development in cardiovascular epidemiology, clinical algorithms, and cost-effectiveness studies relevant to local health problems.

The commonality between countries or regions in terms of barriers to preventive care and their solutions leads to the conclusion that there is a need for a global effort to promote, coordinate, and expand preventive cardiology efforts. Concern was expressed about the division, duplication, or opposition of limited resources and energies. It was concluded that a logical umbrella organization for the coordination of these efforts was the International Society and Federation of Cardiology (ISFC). This organization serves as the contact for national and regional cardiology societies and has just organized a task force on risk factors in developing countries, which will survey and prepare a white paper on global CVD prevention activities. Furthermore, it will soon launch a journal, CVD Prevention. It is hoped that this organization can engage the widest audience of interested organizations while stimulating national societies to develop consistently high-quality education, research, and care programs. It is exceedingly important that the programs extend beyond Europe, North America, and Australia/New Zealand. Professionals concerned with the global epidemic of CVD...
should support and encourage the ISFC to undertake meaningful actions in the near future.

The symposium concluded that cardiovascular specialty societies cannot control the impending CVD epidemic by themselves. However, unless these professionals (who know the most about CVD) take a leadership role, any efforts by lay or governmental groups to control the epidemic will surely lag if not fail. The lessons learned about the CVD epidemic in developed countries should be shared with those countries now encountering this problem. The call to action for cardiovascular specialty societies, both national and international, is a logical first step in a global response to an increasingly global disease.

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References

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