

Stroke prevention and treatment series

PART I: INTRODUCTION

If a patient or medical student asked you to explain stroke, how might you reply? The Action Group on Stroke is a Catastrophic Disease recently found that fundamental definitions of stroke vary widely among physicians around the world. Sadly, there is a gap between scientific knowledge and medical understanding of stroke and treatment received by patients in developed and developing countries alike.



A 47-page report released by the Action Group in May, entitled *Stroke Prevention & Treatment: Turning Knowledge into Practice*¹, reviews the status of prevention and treatment of stroke in eight developing and developed countries: USA, Brazil, France, UK, Germany, Italy, Poland and Japan. Combining results of qualitative surveys of current government prevention programs, treatment standards, national research and stroke association activities in these countries, together with the WHO's stroke prevalence data, the Action Group has developed an 8-point worldwide call-to-action plan for this preventable, catastrophic illness.

As the publisher of HKMA's *CME Bulletin*, Elsevier recognizes the clear need to increase physician and patient awareness of epidemiology and consequences of stroke, as well as best practice prevention and treatment approaches. Over the next 4 months, we are pleased to provide the readers of *CME Bulletin* with a supplemental series of articles highlighting this important and timely report. In the March and April issues of *CME Bulletin*, we will summarize and compare the report's eight-country epidemiology and prevention data, respectively, with the current situation in Hong Kong. The final article in May will overview these countries' treatment approaches with the latest options for management of patients at higher risk for stroke.

Stroke does not have to be a death sentence, or even a life-changing illness. Beyond heredity and age the numerous modifiable factors include diabetes, cholesterol, obesity, smoking and, by far the worst contributor to stroke in developed countries, hypertension. It is estimated that ~20% of all women and 25% of men reaching age 85 will suffer a stroke, with survivors more prone to dementia, depression, and the development of epilepsy and fractures. A research group from the World Federation of Neurology

predicted that, by 2020, stroke will account for 6.2% of the global burden of illness.²

Stroke Prevention & Treatment: Turning Knowledge into Practice comes on the heels of the World Stroke Federation's 2006 launching of the commitment to hold World Stroke Day on October 26 every year. Indeed, the World Stroke Federation and the International Stroke Society have recently joined forces to form the World Stroke Organization (WSO; <http://www.world-stroke.org/about.asp>), which aims to provide access to stroke care and to promote research and teaching that will improve the care of stroke victims via their website, publications, surveys, campaigns, and cooperation with other medical and lay organizations across the world. In his Foreword to the report, WSO Co-Founder Professor Antonio Culebras writes:

“Without a comprehensive understanding of the full burden of disease, it will remain a challenge for clinicians and government health authorities to respond to stroke in the appropriate way that recognition of stroke as a catastrophic disease requires. It is also clear that better management of the risk factors as well as early and appropriate intervention in the event of a stroke can significantly reduce both mortality and the often serious consequences of stroke.”

A panel of renowned international stroke expert reviewers of the report included Ayrton Massaro (Brazil), Pierre Amarenco (France), E. Bernd Ringelstein, Wolf-Dieter Heiss, Otto Busse and M. Grond (Germany), Cesare Fieschi (Italy), Takenori Yamaguchi (Japan), Anna Czlonkowska (Poland), Philip Bath (UK), and Antoine Hakim (Canada).

The following summarizes the 8 areas targeted for action that will be explored in this series:

- 1) **AWARENESS:** Raise public and professional awareness of the consequences of modifiable risk factors and the importance of early treatment, and eradicate myths about stroke.
- 2) **KNOWLEDGE INTO ACTION:** Narrow the gap between available knowledge and actual provision of adequate care, and encourage prevention and lifestyle modifications.
- 3) **DATA COLLECTION:** Available stroke registry data are inadequate and incomparable, although good models exist (e.g. Latin American Stroke Registry, LAST).
- 4) **CONSENSUS DEFINITION:** Both terminology and approach to stroke treatment vary worldwide, and should be clarified.
- 5) **TREATMENT:** Placing stroke under the umbrella of national programs or guidelines for cardiovascular disease is inadequate to achieve optimal patient recovery rates.
- 6) **PREVENTION:** Prevention plays a significant role in reducing the prevalence of stroke, which shares risk factors with other highly prevalent chronic illnesses (heart disease, diabetes and obesity). Proactive control of the modifiable risks associated with high blood pressure, diabetes, and dislipidaemia is a key element.
- 7) **RESEARCH:** Stroke ranks among the top causes of death and disability worldwide, but is underfunded compared to heart disease and cancer. Adequate funding of research and technological innovation, and sharing of these results with underdeveloped nations, will reduce the disparities in prevention and treatment of stroke in poorer countries.
- 8) **COLLABORATION OF ADMINISTRATORS, POLITICIANS, INDUSTRY & PROFESSIONALS:** The high costs of stroke care put a strain on economies and cash-strapped health care budgets in particular. In the absence of change, current trends indicate that stroke-related disability and demands for rehabilitation and long-term care in developed countries will increase by 24% by the year 2030.


Stay tuned next month for coverage of trends in stroke mortality and risk factor prevalence across the 8 countries surveyed, as well as here at home.

We invite local physicians experienced in treating stroke to contribute to this special series in the form of commentary and notable case reports. Please email your ideas to ka.berry@elsevier.com.

References

1. Stroke Prevention & Treatment: Turning Knowledge into Practice. A Report from the 'Action Group on Stroke is a Catastrophic Disease'. May 1, 2007.
2. Menken M, Munsat TL, Toole JF. The global burden of disease study. Implications for neurology. Arch Neurol 2000;57:418–20.

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and enjoy links to additional Elsevier resources on stroke management, including excerpts from the 2nd edition of *Graeme Hankey's* acclaimed *Stroke – Your Questions Answered*, **FREE OF CHARGE**.

This month in a simple, easy to download PDF the following questions will be answered:

- *What is a stroke?*
- *Why does a stroke occur?*
- *What is a transient ischaemic attack?*

