

Working Group Report and Recommendations on Stroke Prevention in Patients with Atrial Fibrillation

How can we avoid a stroke crisis?

Every year, 15 million people worldwide experience a stroke.¹ Approximately five million of these suffer permanent disabilities and over five million more die.²

In the Asia-Pacific region in 2004 the approximate number of patients who had survived a stroke at some point in their lifetime was 4.4 million in Southeast Asia and 9.1 million in the Western Pacific region.³ In the same year, the number of first-ever stroke was 5.1 million across these regions.⁴ This was higher than the estimated number of new cases of cancer.⁴

Individuals with atrial fibrillation (AF), the most common sustained abnormal heart rhythm in adults, have a five-fold increased risk of stroke.^{5,6} AF is known to be responsible for 15-20% of all strokes, and for 20% of all ischaemic strokes (caused by a blood clot blocking a blood vessel in the brain).^{7,8}

Furthermore, AF-related strokes are more severe, cause greater disability and have a worse outcome than strokes in patients without AF. People who suffer a stroke caused by AF are more likely to remain in hospital for longer, are less likely to be discharged home, and are 50% more likely to remain disabled.^{9,10}

There are a vast and increasing number of people in the Asia-Pacific region living with AF. For example, in China, up to 8 million people suffer from AF.¹¹ However, due to a paucity of epidemiological evidence, the prevalence of AF is not known in all Asia-Pacific countries and further research is required.

Simple measures could improve stroke prevention in patients with AF in the Asia-Pacific region and thereby help to stop the rising tide of preventable strokes related to AF, which occur every year. These strokes lead to millions of early deaths and have a devastating impact on individuals and society.

Why is action needed?

Patients with AF represent a vast population at high risk of stroke, particularly severe stroke, and are therefore an important group to target in tackling this significant health issue.

Stroke is the most common cardiovascular disorder after heart disease.⁴ The current economic burden of stroke on national economies in the Asia-Pacific region is significant. For example, China will lose \$558 billion in foregone national income because of the combination of heart disease, stroke and diabetes.¹²

In Australia, the estimated total lifetime cost for all cause strokes is estimated at about AU\$2 billion.¹³ Estimates from the Korea National Health Insurance Claims Database for 2005 have shown the total cost for the treatment of stroke in the nation was 3,737 billion Korean won (KRW) (US\$3.3 billion).¹⁴

Healthcare costs associated with stroke are also likely to be higher for patients with AF than for patients without AF, because stroke in patients with AF tends to be more severe.¹⁰ This burden will increase in years to come, due to both the improved survival of patients with conditions such as heart attacks, and the Asia-Pacific region's ageing population,¹⁵ making people with AF a key target population for reducing the overall burden of stroke.

A call for action to prevent strokes in atrial fibrillation

Action for Stroke Prevention, a group of health experts from across the globe, and leading Asian-Pacific, and other global medical societies and patient organizations who endorse the recommendations, calls for policymakers and national governments to act before the increasing frequency of these strokes becomes a major public health crisis.

Principal recommendations

1. Create and raise awareness among national governments and the general public of the impact of AF and AF-related stroke

There is a critical need across the Asia-Pacific region for increased awareness, among national governments and the general population, of the economic and social impact of AF-related stroke, for better understanding of AF and its diagnosis/detection, and for improved strategies for AF management.

National governments are called upon to drive policy initiatives to promote understanding, earlier detection, and improved management of AF, and better stroke prevention.

2. Develop coordinated strategies for early and adequate diagnosis of AF

AF is often detected only after a stroke, because many patients are unaware of their heart disorder. A simple, inexpensive procedure such as routine pulse-taking (which is not always carried out as a matter of principle) followed by electrocardiogram monitoring, can play a crucial role in helping to improve detection of AF in patients at risk.

Campaigns that raise awareness of the relevance of an irregular pulse as a sign of AF, and of the importance of detecting abnormal heart rhythm, would allow timely initiation of AF therapy and may help reduce the need for specific stroke prevention treatment.

3. Improve education of patients and carers about AF and its detection

There is an urgent need to provide the public with better information about the risk of AF-related stroke and the methodology for its prevention, as well as pharmaceutical and technological developments – such as new anticoagulating drugs and patient-operated monitoring techniques for existing drugs – that may make it easier in future to provide appropriate treatment to protect patients with AF against stroke. Better patient education is needed to make such innovations widely known.

We call on national governments to fund, drive, and encourage participation in such educational initiatives to raise awareness of AF, because this could play a significant role in improving adherence to therapy.

Furthermore, collaboration between existing and newly established patient organizations in the Asia-Pacific region, together with the creation of a common platform for patients with AF (to exchange and disseminate information on AF, its diagnosis and management, and on stroke prevention) would enable the pooling and comparison of data between different countries in the Asia-Pacific region. Driven by national governments, such an initiative would make it possible to identify best practice for the successful management of AF, leading to benchmarks for management that would stimulate improvements across the region.

4. Encourage the development and use of new approaches to the management of AF and the prevention of AF-related stroke

Some factors that contribute to the emergence of AF, such as genetics and the natural ageing process, are not modifiable, so it is not possible to eliminate AF entirely.¹⁶

Effective use of anticoagulating therapy is therefore essential in most patients who have already developed AF, in order to prevent complications (such as stroke) resulting from a circulating blood clot.

The ideal anticoagulating drug would be effective; have a favourable safety profile in a wide range of patients, including the elderly; have a low risk of interactions with food and other drugs; and have a simple dosing regimen, with no need for routine monitoring or dose adjustment. Such an agent could eventually increase adherence to therapy and, potentially, improve outcomes in patients with AF.

5. Improve the awareness of physicians involved in AF management

Physician education is needed to help in the recognition of undiagnosed ('silent') AF before complications occur. Physicians should also understand fully the management options for patients with AF and recognize that, when implemented properly, according to guidelines, the benefits of therapy generally outweigh the risks.

Coordinated efforts across the Asia-Pacific region are needed to improve awareness of the substantially increased risk of stroke in patients with AF compared with those without AF.

6. Promote equality of access to therapy, monitoring services and information for all patients across the Asia-Pacific region

All patients should have equal and timely access to diagnostic procedures that identify AF; to adequate therapy to manage the arrhythmia and its underlying clinical conditions; to anticoagulation therapy for the prevention of stroke; and to better information on AF and its consequences.

In addition, resources are needed throughout countries of the Asia-Pacific region, to ensure clear and relevant communication with patients, so that they are partners in determining their care.

7. Advocate adherence to guidelines to improve management of AF

Several sets of guidelines exist for the management of AF. Their recommendations largely overlap, but the degree to which they are properly implemented varies widely between and within countries. This can be demonstrated when the use of anticoagulation therapy is analyzed in large cohorts of patients with AF.

For example, according to recent surveys in Tasmania and China, the proportion of patients with AF at risk of stroke not receiving anticoagulation therapy was 24.6% and 35.5%, respectively.^{17,18} Moreover, in Taiwan, the proportion of patients with AF receiving guideline-adherent anticoagulation therapy for stroke prevention was 28.3% for warfarin and 37.9% for aspirin; even with the

combination of these two regimens, only 62% of patients received anticoagulant or aspirin prophylaxis.¹⁹ In Korea, up to 73.9% of patients with AF receive guideline-adherent prophylaxis.²⁰ There is therefore a need across much of the Asia-Pacific region to improve adherence to guidelines for the prevention of stroke in patients with AF, because non-adherence is associated with poor outcomes.²¹

We call on national governments in the Asia-Pacific region to raise awareness of the existing guidelines – improved adherence to these will help increase the number of eligible patients in the region who receive adequate anticoagulation therapy, and ensure that such therapy is optimally delivered.

8. Facilitate exchange of best practice between countries in the Asia-Pacific region

An Asia-Pacific initiative to harmonize existing national guidelines into one set of unified Asia-Pacific guidelines would help to advance the goal of stroke prevention.

It would also help to ensure that the principle of healthcare equality across the countries of the Asia-Pacific region is implemented and individual patients receive similar (and the best possible) care. It would be beneficial if there could be a better alignment between the countries of the region, to identify key areas where the guidance is being overlooked or where agreement is required on divergent advice.

9. Boost research into the causes, epidemiology, prevention, and management of AF

Funding is required to boost research into the causes of AF and the development of strategies for its prevention and treatment.

An Asia-Pacific coordinated research initiative is therefore urgently needed, aimed at improving the management of AF, at understanding more fully its causes and epidemiology, and at preventing AF-related stroke.

About Action for Stroke Prevention

Action for Stroke Prevention is a group of health experts from across the globe, who have come together to call for policymakers and national governments in the Asia-Pacific region to act before the increasing frequency of these strokes becomes a major public health crisis. Their report, *How Can We Avoid a Stroke Crisis in the Asia-Pacific Region?*, and recommendations are endorsed by 32 leading global, Asian-Pacific, and other global medical societies and patient organizations.

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