

STROKE SOCIETY OF AUSTRALASIA



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BARRIERS TO THE USE OF WARFARIN IN NONVALVULAR ATRIAL FIBRILLATION

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Background: Optimising the management of NVAF is proving difficult and the potential to reduce stroke risk is yet to be fully realised. Barriers to using anticoagulants need to be addressed.

Aims: To describe GP management of NVAF and barriers to the use of warfarin.

Methods: Representative survey of Australian GPs.

b: Of the 593 GP participants (response = 64.3%), 46.2% reported the experience of an ischaemic stroke in their NVAF patients without anticoagulation. When asked to select treatment for a hypothetical NVAF patient at 'high' risk of stroke, 71.0% appropriately selected warfarin. In the presence of a minor falls risk, 45.4% of GPs selected warfarin. Only 28.8% would anticoagulate the patient at high risk of stroke with a history of recurrent nosebleeds and 16.9% would anti-coagulate such a patient with a treated peptic ulcer bleed. 37.9% agreed that 'it is hard to decide whether the benefits of warfarin outweigh the risks', while only 54.3% agreed they fully understood their patients' views on both the benefits and risks of warfarin.

Conclusion: Any strategy to improve the evidence based management of NVAF must address the excessive concerns clinicians have about anticoagulation. We need to reduce anxiety about 'acts of commission' in the management of NVAF.

THE STOP-STROKE TRIAL PROTOCOL: SUPPORTING TREATMENT DECISIONS TO OPTIMISE THE PREVENTION OF STROKE

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Background: Warfarin reduces stroke risk associated with non-valvular atrial fibrillation (NVAF) yet is underutilised. Wider use of warfarin is advocated to reduce the risk of mortality and disability.

Aims: We have funding to: 1) develop an innovative intervention (*Stop-Stroke*) to optimise General Practitioners' (GPs) management of NVAF; 2) evaluate *Stop-Stroke* using a rigorous, clustered RCT; 3) determine the incremental cost per life year saved due to *Stop-Stroke*.

Methods: Random allocation of 110 GPs from across Australia to control or the *Stop-Stroke* intervention. *Stop-Stroke* will comprise patient identification and recall, management plans, peer coaching, specialist support and decision tools. Data will be collected from over 2500 patients.

Primary Outcome: The proportion of patients with NVAF over 65 who are on 'appropriate' antithrombotic treatment (judged against standardised criteria) will be compared. 'Appropriate treatment' will be determined using standardised medical record audits and blinded expert review.

Results and Analysis: Outcomes will be compared, adjusting for clustered randomisation. Analysis will be by intention to treat.

Implications: There is no proven implementation strategy for enhancing the prevention of stroke in patients with NVAF. If effective, *Stop-Stroke* will bridge evidence-practice gaps in managing NVAF and reduce the risk of stroke and disability in the Australian community.

STROKE RECURRENCE IS ASSOCIATED WITH DEMENTIA AND GLOBAL COGNITIVE DECLINE TWO YEARS AFTER FIRST-EVER STROKE

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Background: There are few data on long-term cognitive outcome after first-ever stroke and none from population-based samples.

Aims: To study rates of cognitive change and factors associated with incident dementia 2 years after first-ever stroke.

Methods: A population-based cohort of incident first-ever stroke cases (n = 99, mean age 69.9 years) and an age- and sex-matched comparison group (nonstrokes, n = 99) were followed over two years using 3 serial examinations. Rates of cognitive change were compared using repeated measures analyses. Factors associated with incident dementia were determined using multinomial logistic regression.

Results: Significant stroke × time interactions were present for all cognitive domains, with stroke cases showing greater rate of decline compared with nonstrokes. Significantly greater global cognitive decline was observed in cases of stroke with recurrence, but not among those without recurrence. Stroke with recurrence (p = 0.02), age (p = 0.004) and baseline cognitive impairment (p < 0.001) were independently associated with incident dementia at 2 years.

Conclusion: Recurrent stroke contributes importantly to global cognitive decline and dementia after first-ever stroke. Secondary stroke prevention will be important in ameliorating dementia related to stroke.

STROKE AND COGNITIVE DECLINE IN CARDIAC SURGERY

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Aims: Coronary artery bypass grafting is associated with fatal brain injury (2%), stroke (1–7%), ischemic brain lesions on imaging studies (30%) and cognitive decline (40–80%). Our aim was to determine the frequency of these endpoints in patients with cardiac valve surgery.

Methods: Twenty patients [11 men, mean age 64 (SD 12) years] had neurological and magnetic resonance imaging studies 24 hours before, and again at 72 hours and 6 weeks after, elective cardiac valve surgery. Neuropsychological testing was performed pre-operatively and at 6 weeks.

Results: Two of 20 (10%) patients had peri-operative strokes. Ten of 19 (53%) with post-operative imaging had new ischemic lesions: range 1–17 lesions, each <1 cm³ diameter except in 3 patients with large confluent ischemic regions. Thirteen of 18 (72%) patients with post-operative testing had significant cognitive declines in at least one domain (range 1–4), including all those with new ischemic lesions (p = 0.029).

Conclusion: Ischemic brain injury is common in cardiac valve surgery: 20% of the patients have stroke, half have new ischemic lesions on imaging, all of whom have measurable cognitive decline, which is not previously described. Cardiac surgery may be a useful model of human stroke in late phase IIB trials of putative neuroprotective therapies.