

Poster

Reducing the risk of stroke in atrial fibrillation: A hospital-based risk stratification assessment and intervention program

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Clinical Practice Guideline	Thromboprophylaxis guidelines to reduce the risk of stroke occurrence in patients with atrial fibrillation (AF) were implemented for patients admitted to the Royal Hobart Hospital. Guidelines developed by the National Heart Foundation were locally adapted and endorsed by a project steering group that comprised local opinion leaders.
Stakeholders	A Stroke Risk Assessment in Atrial Fibrillation (STRAAF) steering group was established that comprised key clinicians (geriatrician, cardiologist, haematologist, general physician and clinical pharmacists) and opinion leaders from the Royal Hobart Hospital. The intervention targeted doctors who were directly responsible for the prescribing of antithrombotic therapy for stroke prevention in AF.
Evidence-practice gap	Despite compelling evidence that antithrombotic therapy reduces strokes in AF, the treatment remains underutilised. Previous research has found that doctors underestimate the risk of stroke for patients with AF and also overestimate the risk of bleeding from warfarin. A previous study by the author in the community setting resulted in a significant improvement in the use of antithrombotic therapy. The next step was to intervene in the hospital setting, which presents an ideal opportunity for evidence-based medication review.
Implementation strategies	A novel technique using a pharmacist as a stroke risk assessor was employed. The project pharmacist, a NICS Fellow, assessed all admitted patients identified with AF for their risk of stroke according to guidelines. The pharmacist also made a written and verbal recommendation regarding the most appropriate antithrombotic therapy to the medical team, again based on evidence-based guidelines and the patient's individual comorbidities and any contraindications to antithrombotic therapy. This process was documented on a stroke risk assessment form that was placed in the medical record.
Data	The proportion of patients receiving appropriate antithrombotic therapy at discharge from hospital was compared to admission therapy. In addition discharge therapy was also compared to an historical control sample of hospitalised patients with AF.
Results	One hundred and thirty-four stroke risk assessments were performed. There was a significant increase in the use of warfarin between admission and discharge in the intervention cohort (43% to 58%; $p = 0.05$). For those AF patients at high risk of stroke with no contraindications present, 98% were receiving warfarin on discharge, compared to 74% on admission ($p < 0.001$).
Barriers	The perception of some doctors that this is not the role of a pharmacist (i.e. it should only be done by doctors). In some cases this negative attitude resulted in patients not receiving appropriate therapy.
Enablers	The team approach to implementing the guidelines and ensuring that patients receive an accurate evidence-based stroke risk assessment, along with the involvement of key opinion leaders ensured that the guidelines were implemented.
Resources	This project was an implementation project funded by the National Institute of Clinical Studies as part of their Fellowship program.
Key message	Pharmacists and other allied health professionals (e.g. nurses) can be utilised as key change agents to assist in the optimal use of evidence in practice. This project has shown that a process of accurate risk assessment and subsequent recommendations to the medical team can result in an improved use of evidence in practice. If pharmacists performed this role as part of their normal health care role it could save 600 strokes per year and \$16million Australian dollars per annum.
* Presenter Bio	Shane Jackson was awarded one of the inaugural NICS fellowships in 2004. He has recently completed this fellowship and is currently a research associate at the Unit for Medication Outcomes Research and Education (UMORE) at the University of Tasmania. He has an active clinical interest in improving the uptake of evidence in practice particularly focusing on medication use. He has an active clinical practice; he conducts medication reviews in the aged-care and community settings and is part-owner of a community pharmacy in a rural area of Tasmania. He is a national director of the Pharmaceutical Society of Australia and is Vice-President of the Tasmanian Branch.