



National Institute of Clinical Studies

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Reducing the risk of stroke in atrial fibrillation

Evidence-practice gap

- People with atrial fibrillation (AF) – an abnormality of the heart rhythm that affects 1% of the population and 10% of those over 80 – are at high risk of having a stroke.
- Despite compelling evidence that anticoagulant (blood thinning) medications such as warfarin or aspirin substantially reduce this risk and prevent many strokes, these treatments are not prescribed for many people who could benefit.
- This project aimed to increase the appropriate use of anticoagulants in hospital patients with AF where the benefits of these drugs clearly outweigh the risks. The project used a pharmacist to assess stroke risk and make recommendations to the medical team.

Key findings

- The project pharmacist assessed and made recommendations on 134 patients with AF. Nearly 90% of these patients were at high risk of stroke.
- There was a substantial increase in the proportion of these patients who were on appropriate anticoagulant therapy when they were discharged from the hospital.
- Importantly, of the patients who were assessed at being at high risk of stroke and who had no contraindications to warfarin, nearly all were receiving warfarin on discharge, compared to less than three quarters on admission. Warfarin can reduce the risk of stroke by about two-thirds in patients with AF.
- When the pharmacist recommended a change in anticoagulant therapy, in the large majority of cases the medical team followed the recommendation. About two thirds of the recommendations were to “upgrade” to a more effective treatment (most from aspirin to warfarin, a small number from no therapy to aspirin). About one third of the changes were “downgrades” to less effective but safer options, in patients for whom the anticoagulant was considered too risky.

Implications for clinical practice

- If hospital pharmacists across Australia had responsibility for stroke risk assessment and anticoagulant recommendations as part of their normal health care role, this could reduce the number of AF-related strokes by an estimated 10% – some 600 strokes per year. The savings in health care costs would be about \$16 million per year.
- Using pharmacists in this way would draw on their skills in drug and disease management. It would be an excellent and cost-effective use of an existing resource.
- This stroke prevention strategy has the potential to underpin consistent, evidence-based management of AF across hospitals. It should be evaluated in a larger trial involving many hospitals and pharmacists. If a larger trial confirms the success of this approach, it should be implemented in hospitals across Australia.
- This project has also shown that pharmacists can be very effective in promoting evidence-based practice. This potential should be explored more broadly, beyond stroke prevention, in relation to other evidence-practice gaps.