Navigating the risk of stroke and bleeding in atrial fibrillation

Rawa Osman, Jarrah Anderson, Annette Katelaris, Sally Dooley, Jonathan Dartnell

IN AUSTRALIA, atrial fibrillation (AF) contributes to almost one in 10 deaths and is the most common recurrent cardiac arrhythmia, with over 500,000 people affected.[1] Prevalence is rising, driven by an ageing population, an increased burden of comorbidities, increased awareness of the disease resulting in increased detection, improved detection methods and greater survival among patients with AF.[2] AF increases the risk of stroke by five-fold. Typically, patients with AF who have a stroke have large infarcts and a poor outcome with significant disability.[3]

However, the appropriate use of anticoagulants in non-valvular AF can reduce the risk of ischaemic stroke by 64% and the risk of death by 26%.[4,5] Given the efficacy of anticoagulants, it is surprising and concerning that only about half of eligible patients are on anticoagulants.[6]

Until direct oral anticoagulants (DOACs) were listed on the Pharmaceutical Benefits Scheme (PBS) in 2013, warfarin was the drug of choice for stroke prevention in AF, and remains so for some patients. The advantage of DOACs over warfarin is that they provide effective anticoagulation, with reduced need for regular monitoring and fewer interactions with food and drugs. Nonetheless, all oral anticoagulants are high-risk medicines with potential for adverse outcomes if used inappropriately. Too high a dose can cause bleeding and too low a dose might result in inadequate prevention of embolism and stroke.

Challenges for the practitioner

Managing AF in general practice can be challenging. Despite the high prevalence of AF, there is no defined screening program, so it remains the remit of the general practitioner (GP) and community health professionals to opportunistically find high-risk cases. We know that there is uncertainty about when, how and who to screen; when and how to initiate oral anticoagulants; which agents to choose; periprocedural management; and what information to provide to patients. Ensuring ongoing compliance can also be challenging. Health professionals tend to discount the stroke risk of AF that is intermittent or asymptomatic, further contributing to underuse of anticoagulants.

Practice insights

Our desktop research and qualitative research with consumers and health professionals (see Figure 1) has identified important gaps in the management of AF and quality use of oral anticoagulants in practice. Key findings include the following:

- Prescribing of oral anticoagulants for Australian patients with AF and high stroke risk varies significantly between general practices, ranging from 39% in the lowest-performing quintile to 66% in the highest.[6]
- Emerging evidence suggests prescription rates for anticoagulants has improved, but still many patients remain undertreated.[7]
- Health professionals are reluctant to prescribe anticoagulants because of concerns about bleeding risks, and some tend to use bleeding risk scores to justify withholding initiation of anticoagulation, leading to delayed treatment or undertreatment.
- In contrast, guidelines state that the overall clinical benefit of stroke prevention nearly always outweighs the risk of major bleeding and that bleeding risk scores should not be a reason to withhold anticoagulation in patients with AF.[8] Instead, clinicians should focus on identifying and addressing modifiable risk factors for bleeding to optimise patient outcomes.
- Hesitancy to prescribe oral anticoagulants appears to be higher for older, frail patients, and those at risk of falls or with dementia, even though evidence suggests stroke risk increases more significantly with age than bleeding risk.[9]
- Because DOACs require less monitoring than warfarin, there is a tendency towards a 'set and forget' approach. Prescribers tend to overlook the dynamic nature of stroke and bleeding risk assessment, which requires ongoing review and re-evaluation.[6]

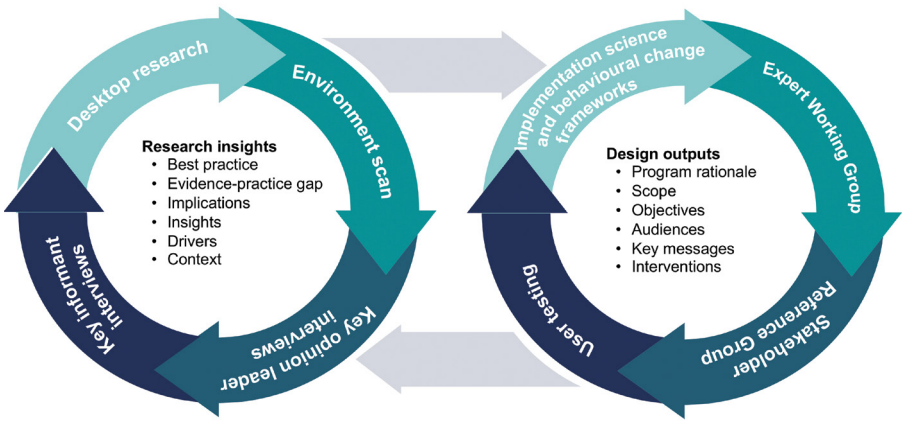

Figure 1. Research and program design process for Quality Use of Medicines Alliance programs.
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- Knowledge gaps exist among prescribers regarding the characteristics of different anticoagulant medications and appropriate dose selection, further complicating decision making. This extends to dose adjustments for patients with renal impairment, individuals with extremes of body weight and use of anticoagulants in frail patients.
- There are variations in periprocedural management of oral anticoagulants, with prescribers unclear when to pause and restart treatment, and which procedures do not require a DOAC to be suspended.
- There are knowledge gaps about the limited role of aspirin for stroke prevention. Understanding and documentation of the duration and indication of dual and triple antithrombotic therapy (eg clopidogrel + aspirin + oral anticoagulant) is often poorly done, leading to increased risk of bleeding.

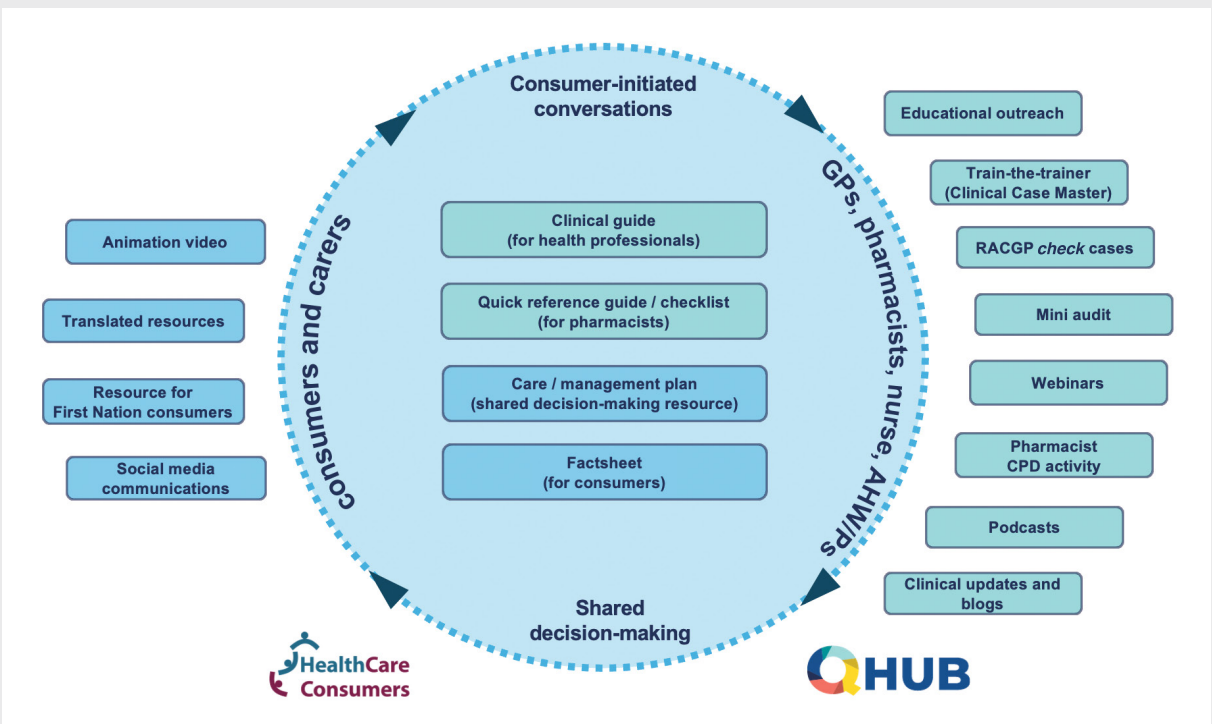

Figure 2. Intervention strategy. Oral anticoagulants program.
AHW/P, Aboriginal health worker/practitioner; GP, general practitioner; RACGP, The Royal Australian College of General Practitioners.
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- Adherence challenges are driven by patient concerns about bleeding risks, treatment burden and knowledge gaps about the importance of adherence and persistence.
- There are challenges accessing cardiologists in the public system, with long wait times leading to delays in appropriate anticoagulation, particularly if the treating GP has concerns about initiating treatment.[9]
- Access to screening and specialised cardiology services is particularly challenging in rural and remote areas.

Addressing the problem

A systematic review of 20 trials indicated that interventions involving patient education, provider education and electronic risk assessment or decision support were most effective in improving anticoagulant prescribing in AF.[10] With this in mind, the Australian Government has provided funding to the Quality Use of Medicines Alliance to define the current issues in Australia, and identify and implement potentially effective strategies to address them. The Quality Use of Medicines Alliance is a consortium of eight health, consumer and research organisations tasked to develop national educational programs to support consumer health literacy and improve the quality use of medicines across a range of therapeutic areas.[11] The Alliance consists of Medcast, Health Care Consumers' Association, Arthritis Australia, Eczema Support Australia, Pharmaceutical Society of Australia, QUM Connect, The Royal Australian College of General Practitioners (RACGP) and Wiser Healthcare. This fourth program aims to improve the use of oral anticoagulants for the management of AF.

The work follows a process based on methodology used by the now defunct NPS MedicineWise.[12] The rapid and iterative process includes desktop research and environmental scanning; interviews with health professionals, key opinion leaders, stakeholders and consumers with lived experience; review of barriers and enablers using implementation science and behavioural change frameworks; co-design process with a multidisciplinary Expert Working Group to agree the scope, focus, key messages and interventions for the program; and testing interventions with potential audiences for the program (see Figure 1).

Based on this research, the Alliance is developing a national education program for health professionals and consumers. Education will address screening for and diagnosis of AF, risk assessment using validated risk scoring tools, appropriate initiation of oral anticoagulants, management strategies for complex cases and navigating uncertainties.

The program supports both health professionals and adults with AF (and their carers) with resources that provide evidence-based, independent information and aims to support informed, shared decision making (see Figure 2). The multifaceted program features various interventions with different delivery methods, including foundational resources for use in the consultation (eg clinical guides and patient action plan), educational outreach through experienced facilitators,[13] a train-the-trainer activity for GPs to deliver education in their place of practice, case studies (ie RACGP *check* cases), a webinar series and other consumer resources.

Resources will be available through a hub for health professionals (QHUB)[14] and for consumers (Health Care Consumers' Association).[15]

Conclusion

Preventable strokes in patients with AF are occurring unnecessarily in Australia. There is an urgent need for health professionals to detect and manage AF and initiate anticoagulant therapy based on risk scores. Practical, evidence-based education and clinical support can help address these barriers.

This free educational program has been available to all GPs nationally from April 2025. All resources and activities are available from the program website at QHUB (https://medcast.com.au/qhub/oral-anticoagulants).

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