

# Value of Technology

## Inequitable patient access to clinically and cost effective medical technology: Catheter ablation for atrial fibrillation

### BACKGROUND

Atrial fibrillation (AF) causes irregular heart rhythm and is the most common cardiac condition. It is estimated to affect 460,000 Australians. Prevalence increases with age. Furthermore, AF prevalence is predicted to double among people aged 75 years and over by 2034.

There are three forms of AF:

- **Paroxysmal:** Recurrent but terminates within 7 days
- **Persistent:** Consistent for greater than 7 days
- **Permanent:** Long-standing which either fails to terminate or terminates but relapses within 24 hours.

#### ECG Traces

Patient with AF



Patient without AF



### BURDEN OF AF

#### Health Burden

People with AF have a significantly poorer quality of life than the general population. The presence of AF results in lower general health, physical activity, emotional health and vitality.

AF symptoms include palpitations, dizziness, fatigue, chest pain and breathlessness. These symptoms can be disabling and affect a person's work, diet and lifestyle. AF can also affect a person's mental health.

People with AF have a higher risk of:

- **Stroke:** About 2.5-7 times higher
- **Heart failure:** Up to 3 times higher
- **Death:** 1.5-1.9 times higher

#### Economic Burden

AF generates a significant economic burden. In 2010 it cost the Australian healthcare system at least \$1.25 billion per annum through medical costs, disability care and lost productivity output. Approximately 35% of these costs resulted from stroke and heart failure. The total cost for AF pharmaceuticals was \$74.7 million in 2010. This comprised \$57.5 million of government costs via the Pharmaceutical Benefits Scheme (PBS) and \$17.2 million in out-of-pocket patient expenses. The economic burden is expected to increase with an estimated 7.9% annual rise in the incidence of AF-related hospitalisation and healthcare.

### AF TREATMENT AND COST-EFFECTIVENESS

Treatment of AF using catheter ablation is associated with substantial cost-savings gained through:

- Reduction in hospitalisations (in-patient hospitalisation and emergency), general practitioner visits, medication use and costs, specialist consultations, and other AF-associated costs such as carer duties.
- Increased quality of life and productivity (quicker recovery and ability to return to work).

In addition, catheter ablation may be cost-effective by reducing the risk of AF-associated comorbidities such as stroke and heart failure. Data from large multicentre registry studies (up to 37,908 patients) showed the risk of stroke after catheter ablation for AF was reduced to that of the general population. Avoidance of an AF-related stroke is likely to save an average hospitalisation cost of at least \$30,000 in the first year.

### CATHETER ABLATION FOR THE TREATMENT OF AF

The therapeutic aim in treating AF is to restore and maintain the normal sinus rhythm, thus relieving symptoms, improving quality of life and reducing the risk of potentially severe complications such as stroke or death.

Symptoms of AF may be managed with ongoing pharmacological treatment, or permanently treated with catheter ablation. Catheter ablation has been shown to be superior to anti-arrhythmic drugs (AADs). Catheter ablation allows patients to achieve freedom from AF. This outcome is supported by a meta-analysis of 32 randomised controlled trials involving 3,560 patients. The superior efficacy of catheter ablation compared to AADs is further demonstrated by the large number of study participants who crossed-over from AAD treatment to radiofrequency ablation (36-88%), mostly due to lack of efficacy. Catheter ablation is a proven treatment for managing AF.

#### Clinical guidelines recommend the use of catheter ablation for selected patients

Cardiac Society of Australia and New Zealand (CSANZ) Position Statement 2013	"The Cardiac Society of Australia and New Zealand supports catheter ablation in selected patients as a Class 1 indication for paroxysmal atrial fibrillation and a Class 2A indication for more persistent forms"
UK National Institute for Health and Care Excellence (NICE) Clinical Guideline 2014	"If drug treatment has failed to control symptoms of atrial fibrillation or is unsuitable: <ul style="list-style-type: none"><li>• offer left atrial catheter ablation to people with paroxysmal atrial fibrillation</li><li>• consider left atrial catheter or surgical ablation for people with persistent atrial fibrillation"</li></ul>
European Society of Cardiology (ESC) Guideline 2012	"Catheter ablation of symptomatic paroxysmal AF is recommended in patients who have symptomatic recurrences of AF on antiarrhythmic drug therapy and who prefer further rhythm control therapy, when performed by an electrophysiologist who has received appropriate training and is performing the procedure in an experienced centre.  Catheter ablation of AF should be considered as first-line therapy in selected patients with symptomatic paroxysmal AF as an alternative to antiarrhythmic drug therapy, considering patient choice, benefit, and risk."

**Patient perspectives:** "Finding out that you have AF can be a sobering experience, but it needn't necessarily be a life sentence. AF can be fixed in many of us."

"AF was beginning to seriously affect my life to the point where I felt compelled to retire several years early. Sometime after that I finally heard about and underwent a completely successful ablation procedure, after which my quality of life was completely restored. Had I known about ablation before I retired, I would have been able to continue working for some years."

"AF was beginning to seriously affect my life until I finally heard about and underwent ablation, after which my AF completely disappeared."

### ISSUE: INCONSISTENT PATIENT ACCESS TO CATHETER ABLATION

Catheter ablation procedures receive funding from the Australian Government through the Medicare Benefits Schedule (MBS). Private health insurance covers patients' hospital stay, theatre time and professional fees. Importantly, there is inconsistent funding for the ablation catheters required to perform these procedures. The CSANZ has highlighted. If private patients are denied access to these procedures, then they may be forced to seek treatment in the public health system. This will invariably add to the existing burden on public hospital waiting lists.

### RECOMMENDATION: INCLUSION ON THE PROSTHESES LIST

The Prostheses List must be updated to include new technology and 'non-implantable' devices such as ablation catheters. This will help to ensure private health funds fulfill obligations to members and people with AF have access to best practice clinical care. The inclusion of ablation catheters on the Prostheses List will also help to reduce the number of private patients seeking treatment in the public system thus reducing added burden on public hospital waiting lists.