Early detection, stroke risk assessment and management

One major challenge is that atrial fibrillation can often go undetected until someone experiences a stroke. A study carried out in Birmingham defines best practice for atrial fibrillation screening in primary care and screening in the elderly population, which has helped to improve early diagnosis rates. Ongoing work is refining screening recommendations for at-risk populations, e.g. in stroke survivors.

In 2010 researchers from Birmingham and Maastricht University developed the novel CHA$_2$DS$_2$VASc score, which enables clinicians to conduct an effective assessment of a patient’s stroke risk and begin anticoagulation therapy (treatment with blood thinners) where needed. Since then, the CHA$_2$DS$_2$VASc score has been included in NICE clinical guidelines and almost every major atrial fibrillation guideline worldwide.

The team at the ICVS have also shown how heart failure and atrial fibrillation interact, influencing the consequences for treatment of these conditions, and have defined a clinical role for short-term antiarrhythmic drug therapy. This research has informed current international guidelines for the management of patients with atrial fibrillation.

Ongoing work aims to develop precision medicine approaches to further improve the lives of patients with atrial fibrillation.

Putting patients at the heart of care

Two apps have been developed by ICVS in partnership with the European Society of Cardiology (ESC) and CATCH ME Consortium, which is funded by the EU Horizon 2020 programme. These apps
facilitate integrated and personalised care and research for patients with atrial fibrillation.

- The ‘AF Manager’ healthcare professional app has been designed to improve quality of care by prompting the European Society of Cardiology guidelines adherent treatment (Apple / Google Play)
- The ‘MyAF’ patient app has been developed to enable the capture and transmission of the patient’s digital medical history before each hospital visit (Apple / Google Play)

These tools, which have also been integrated into the ESC pocket guidelines app, have been downloaded onto over 180,000 mobile devices worldwide.

Key academics
Professor Paulus Kirchhof, Dr Larissa Fabritz, Dr Dipak Kotecha, Dr Winnie Chua

Find out more
https://www.birmingham.ac.uk/research/heroes/atrial-fibrillation.aspx

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