ATRIAL FIBRILLATION

New score for stroke risk

A novel biomarker-based risk score for predicting stroke in patients with atrial fibrillation (AF) shows good discriminative ability and consistently performed better than the guideline-recommended CHA₂DS₂-VASc score and the recently developed ATRIA stroke score, according to findings from a study published in *Circulation*.

The ABC (Age, Biomarkers, Clinical history)-stroke score contains only four variables: age, the biomarkers N-terminal fragment B-type natriuretic peptide and high-sensitivity cardiac troponin (hs-cTn), and history of prior stroke or transient ischaemic attack. This score was recently derived and internally validated in a cohort of 14,701 patients with AF treated with oral anticoagulation, with further external validation in an independent cohort of patients with AF. Now, Oldgren and

colleagues have externally validated the ABC-stroke score in 8,356 patients with AF from the RE-LY study who were randomly assigned to receive dabigatran or warfarin. Risk categories were defined as low (<1%), medium (1–2%), or high (>2%) risk of stroke or systemic embolism within 1 year. Biomarker levels were measured in plasma samples obtained at study entry, and median follow-up was 1.9 years.

The ABC-stroke score including hs-cTnT was well calibrated, with

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an incidence of stroke or systemic embolism (per 100 person-years) of 0.76 in the low-risk group, 1.48 in the medium-risk group, and 2.60 in the high-risk group (HR 1.95 for medium versus low risk; HR 3.44 for high versus low risk). Similar results were obtained with the ABC-stroke score including hs-cTnI. The C index of 0.65 for the ABC-stroke score (for both hs-cTnT and hs-cTnI) was significantly higher than the C index for the CHA₂DS₂-VASc (0.60) and ATRIA scores (0.61). The ABC-stroke score also showed better clinical utility in decision curve analysis than the other scores. On the basis of these results, the investigators conclude that the ABC-stroke score should be considered an improved decision support tool for the care of patients with AF.

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ORIGINAL ARTICLE

Oldgren, J. et al. Performance and validation of a novel biomarker-based stroke risk score for atrial fibrillation. *Circulation* <http://dx.doi.org/10.1161/CIRCULATIONAHA.116.022802> (2016)

FURTHER READING Calenda, B. W. et al. Stroke risk assessment in atrial fibrillation: risk factors and markers of atrial myopathy. *Nat. Rev. Cardiol.* **13**, 549–559 (2016)