Atrial fibrillation (AF) is the most common sustained cardiac arrhythmia which increases the risk of ischemic stroke by 4- to 5-fold. The risk of AF-associated stroke is not homogeneous and depends on patients’ age and comorbidities, which have resulted in clinical scores to aid risk stratification for AF patients. Currently, the CHA₂DS₂-VASc scheme, which has been validated in a large-scale Asian AF population, is recommended by ACC/AHA, ESC and Asia Pacific Heart Rhythm Society (APHRS) for stroke risk stratification in AF.

By the current definition, the CHA₂DS₂-VASc score assigns 1 point for patients older than 65 years, although the setting of the threshold for age has not been previously well studied for Asians. Data from several registry studies and randomized trials suggested that the risk of ischemic stroke for Asian AF patients may be higher than that of non-Asians. In our previous study, we demonstrated that the annual risk of ischemic stroke can be as high as 1.78% for Taiwanese AF patients with a CHA₂DS₂-VASc score of 0 (males) or 1 (females) aged between 50-64 years, which exceeds the threshold for the initiation of oral anticoagulants (OACs), especially non-vitamin K antagonist OACs (NOACs) (0.9%/year). The findings may suggest that the age threshold in Asian AF patients for an increased risk of ischemic stroke could perhaps be lowered to 50 years. Based on these findings, we propose a simple, modified CHA₂DS₂-VASc (ie. mCHA₂DS₂-VASc) score by resetting the age threshold at 50 years. Our data demonstrate that the mCHA₂DS₂-VASc score performs significantly better than the CHA₂DS₂-VASc score [using c-indexes and net reclassification index]. For patients having a mCHA₂DS₂-VASc score of 1(males) or 2(females) due to the resetting of the age threshold, use of warfarin was associated with a positive net clinical benefit. Further external validations of the mCHA₂DS₂-VASc score for stroke risk assessment for Asian AF patients are very welcome and necessary.