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## Prevention

### ADVANTAGES OF CHA2DS2-VASC SCHEME, A NOVEL RISK FACTORS SCORE TO PREDICT STROKE IN PATIENTS WITH ATRIAL FIBRILLATION

ACC Moderated Poster Contributions

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**Background:** Atrial fibrillation (AF) is the most common sustained arrhythmia and is associated with a high risk of mortality and morbidity from thromboembolic stroke. Therefore it is important to identify high risk patients (pts) by analyzing risk factors in more detail.

**Methods:** Of 560 consecutive patients admitted to our institution in 2010, 153 patients [77±7 years, 64(42%) male] presenting with ischemic stroke and non-valvular AF were included in this retrospective study. Stroke risk was estimated using CHADS2 (score defined in two ways) and CHA2DS2-VASc (Congestive heart failure, Hypertension, Age >75 yrs., Diabetes mellitus, prior Stroke/transient ischemic attack, Vascular disease, Age 65-74, Sex category) schemes. Patients were classified into low, intermediate, and high risk categories based on- 1) CHADS2 classic (0=low; 1-2=intermediate; >2 high risk), 2) CHADS2 revised (0=low; 1=intermediate; ≥2 high risk), 3) CHA2DS2-VASc (0=low risk; 1=intermediate; ≥2 high risk).

**Results:** Distribution of risk stratification across the 3 classification strategies was significantly different. Although all 3 schemes categorized majority of patients into high risk group; CHA2DS2-VASc was able to predict high-risk in 98.7% cases, whereas CHADS2 classic 64.7% and CHADS2 revised 81.7% cases (p=0.005). Small numbers of pts were categorized into low risk group according to the classic scheme or a revised CHADS2 scheme (3,27%) while no low risk pts were identified using the CHA2DS2-VASc scheme. All except one patient categorized as intermediate risk by classic and revised method were identified as high risk by CHA2DS2-VASc. This could be particularly helpful in deciding appropriate anticoagulation strategy. The overall correlation between CHADS2 and CHA2DS2-VASc scoring methods was reasonably good (r=0.668, p<0.001). But CHA2DS2-VASc was likely to record 2.81±1.12 score points higher than CHADS2 in low and intermediate risk populations and 2.46±1.39 higher in high risk group.

**Conclusions:** CHA2DS2-VASc score has high sensitivity in correctly predicting thromboembolic strokes compared to CHADS2 classic and revised methods.