# Epidemiology, risk assessment and re-assessment in atrial fibrillation - What we have learned from Taiwan nationwide AF cohort?

**Tze-Fan Chao M.D., Ph.D.**

**Taipei Veterans General Hospital, Taipei, Taiwan**

Patients with atrial fibrillation (AF) were associated with an increased risk of ischemic stroke, which could be effectively prevented with oral anticoagulants (OACs). The introduction of non-vitamin K antagonist OACs (NOACs) has changed the landscape for stroke prevention in AF by increasing the prescriptions rates of OACs and improved clinical outcomes of AF patients. However, it is a challenge to prevent stroke in some difficult scenarios, such as the elderly, patients with history of intracranial hemorrhage, major bleeding or cancers.

In these 10 years, more and more data about AF have been published from Taiwan and we have understood more about AF in Asia.

The key important messages are summarized in the following:

1. The incidence of AF in year 2011 was 1.51 per 1,000 person-years, with a lifetime risk of AF being appropriately 1 in 7 for subjects aged > 20 years.
2. The prevalence rate of AF in Taiwan was around 1.70% in year 2022 which is estimated to be 4.01% in 2050
3. Stroke risk of Asian AF patients may be higher than non-Asians, which may rise from age 50 - 55 years upwards.
4. Stroke risk of AF patients is not static and should be re-assessed regularly, so that the stroke prevention strategy could be updated accordingly.
5. Around 16.1% of males and 16.2% of females who were initially low risk (score 0 for males and 1 for females) would have a $CHA_2DS_2$-VASc score $\geq$ 1 (males) or $\geq$ 2 (females) at one year after incident AF.
6. Different risk factors carry different weight, and age thresholds for initiating non-vitamin K antagonist OACs (NOACs) may even differ for patients with a different single non-sex stroke risk factor, as follows: age 35 years for heart failure, 50 years for hypertension or diabetes, and 55 years for vascular diseases.
7. Stroke prevention with NOACs should still be considered for the very elderly (>90 years) AF patients with high bleeding risk.