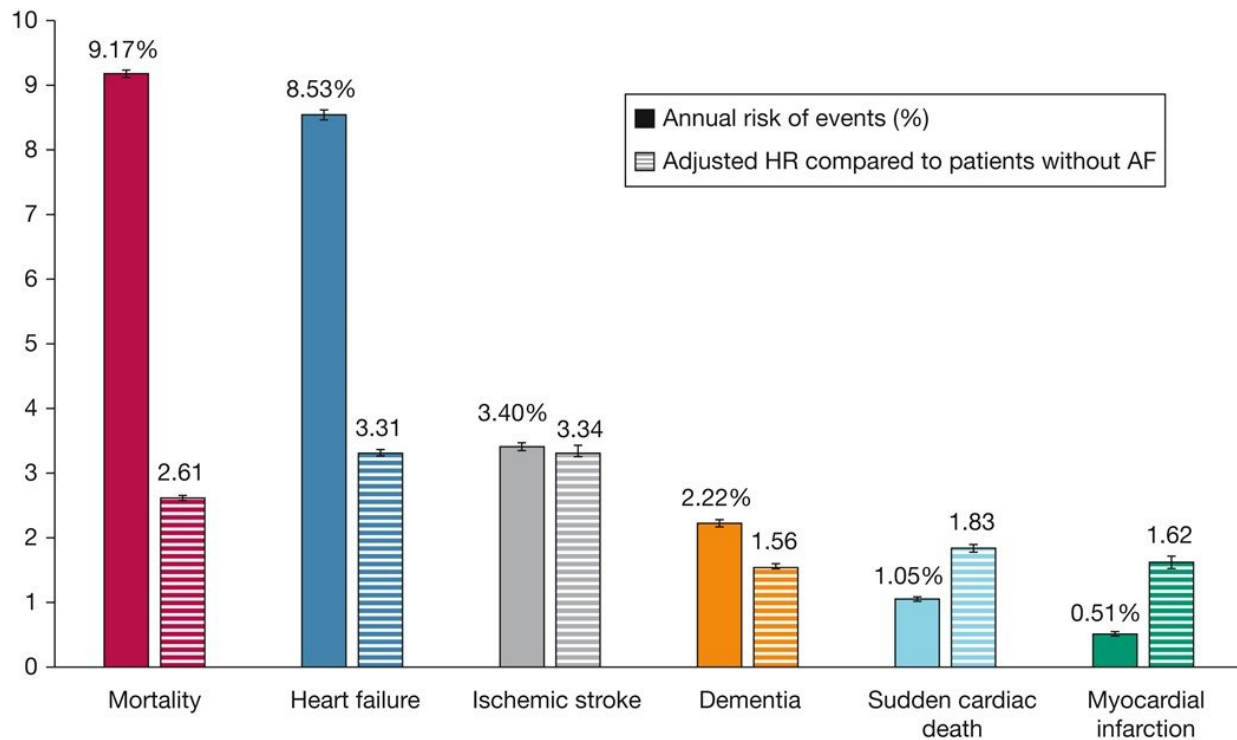


Atrial fibrillation and its accompanying risks on the rise in Asian patients

February 6 2018



Annual risks of adverse events of patients with AF and hazard ratio (HR) compared with patients without AF. This annual risk ranged from 0.51 percent for myocardial infarction to 9.17 percent for mortality. Compared with patients without AF, AF was associated with a 1.56-fold to 3.34-fold increase of various events after the adjustment for age, sex, and comorbidities. Credit: Elsevier

Atrial fibrillation (AF) is the most prevalent sustained cardiac

arrhythmia, and its prevalence is projected to rise continuously over the next few decades because of an aging population. However, studies of time trends on the incidence, prevalence, and lifetime risks of AF among Asians are limited. In a new study published in the journal *Chest*, researchers report on the first large-scale study of almost 300,000 patients in Taiwan with new-onset AF.

"The burden of AF among Asian patients is increasing, with a lifetime risk of AF being appropriately one in seven," explained lead investigator Ming-Hsiung Hsieh, MD, Division of Cardiovascular Medicine, Taipei Wan-Fang Hospital, Taipei, Taiwan. This results in significant mortality, heart failure, [ischemic stroke](#), dementia, sudden cardiac death, and [myocardial infarction](#). Optimized management of any associated medical conditions should be part of the holistic management approach for AF."

Using records from the National Health Insurance Research Database (NHIRD), which covers more than 99 percent of Taiwanese citizens, researchers identified 289,559 newly confirmed cases of AF between January 1, 1996, and December 31, 2011.

This study observed that the incidence of AF in 2011 in Taiwan among the Chinese population was 1.51 per 1,000 person-years in 2011, with a lifetime risk of AF being appropriately 1 in 6 for men and 1 in 7 for women over 20 years of age. The prevalence of AF was 1.07 percent in Taiwan in 2011 and is estimated that it will rise to 4.01 percent in 2050. These findings differ from data from studies of primarily Caucasians, such as the Framingham study, which cites a 1 in 4 risk for men and women 40 years and older, and the Rotterdam study, which indicates the lifetime risk of developing AF at the age of 55 years was 23.8 percent in men and 22.2 percent in women.

Although the [lifetime risk](#) of AF for the studied population is lower than in studies of primarily Caucasian patients, the prevalence of AF in

Taiwan is projected to rise to just over 4 percent by 2050. According to the investigators, this will result in over 730,000 patients with AF in Taiwan. Because AF is a risk factor for death and other adverse events, researchers analyzed the annual risks for patients with AF and the relative risk ratios compared with patients without AF. They determined that within this population, the annual risks were 9.17 percent for mortality, 8.53 percent for heart failure, 3.40 percent for ischemic stroke, 2.22 percent for dementia, 1.05 percent for sudden cardiac death, and 0.51 percent for myocardial infarction.

"Further, in the present study, we demonstrated that the risk of [adverse events](#) in patients with AF remained similar and did not decrease over the study period, despite improvements in our understanding and management of AF," explained Dr. Hsieh. "Nonetheless, only around 15 percent of [patients](#) with AF received appropriate treatments of stroke prevention according to guideline recommendations in Taiwan."

More information: Tze-Fan Chao et al. Lifetime Risks, Projected Numbers, and Adverse Outcomes in Asian Patients With Atrial Fibrillation, *Chest* (2017). [DOI: 10.1016/j.chest.2017.10.001](https://doi.org/10.1016/j.chest.2017.10.001)

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