

*ABSTRACT*

## **Epidemiology of atrial fibrillation in ischaemic stroke patients: a population-based study in Auckland, New Zealand**

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This oral presentation aims to discuss the results of my research on the incidence and attack rates of first-ever ischaemic stroke in patients with atrial fibrillation. Stroke is one of the most prevalent causes of death and debilitating neurological conditions. Globally, the absolute number of stroke patients is rising, with high-income countries showing a higher stroke prevalence than low- and middle-income countries. Atrial fibrillation is one of the most common cardiac arrhythmia and a well-known risk factor for ischaemic stroke. It is associated with a five-fold increase in ischaemic stroke risk, more likely to be severe or fatal. In New Zealand, there have been no previous population-based incidence studies of ischaemic stroke in patients with atrial fibrillation. The design of this study allowed, for the first time, an accurate estimation of the frequency of ischaemic stroke in patients with atrial fibrillation, identifying knowledge gaps specific to New Zealand and providing essential information for health policy development. In this study, the pre-stroke prevalence of atrial fibrillation appeared to be very high and was strongly associated with established cardiovascular risk factors. During the study period, the crude incidence rate of first-ever ischaemic stroke in atrial fibrillation patients in the Auckland population was higher than that reported in other population-based studies. The aging of the population could partly explain the increasing incidence of ischaemic stroke associated with atrial fibrillation in developed countries, including New Zealand. The atrial fibrillation detection at the time of stroke onset was significantly improved by using historical hospital archives. Moreover, a longer post-stroke duration of electrocardiographic monitoring was associated with higher newly diagnosed atrial fibrillation detection, demonstrating that prolonged monitoring should be considered for all stroke survivors.