Heart screening could protect hundreds from stroke

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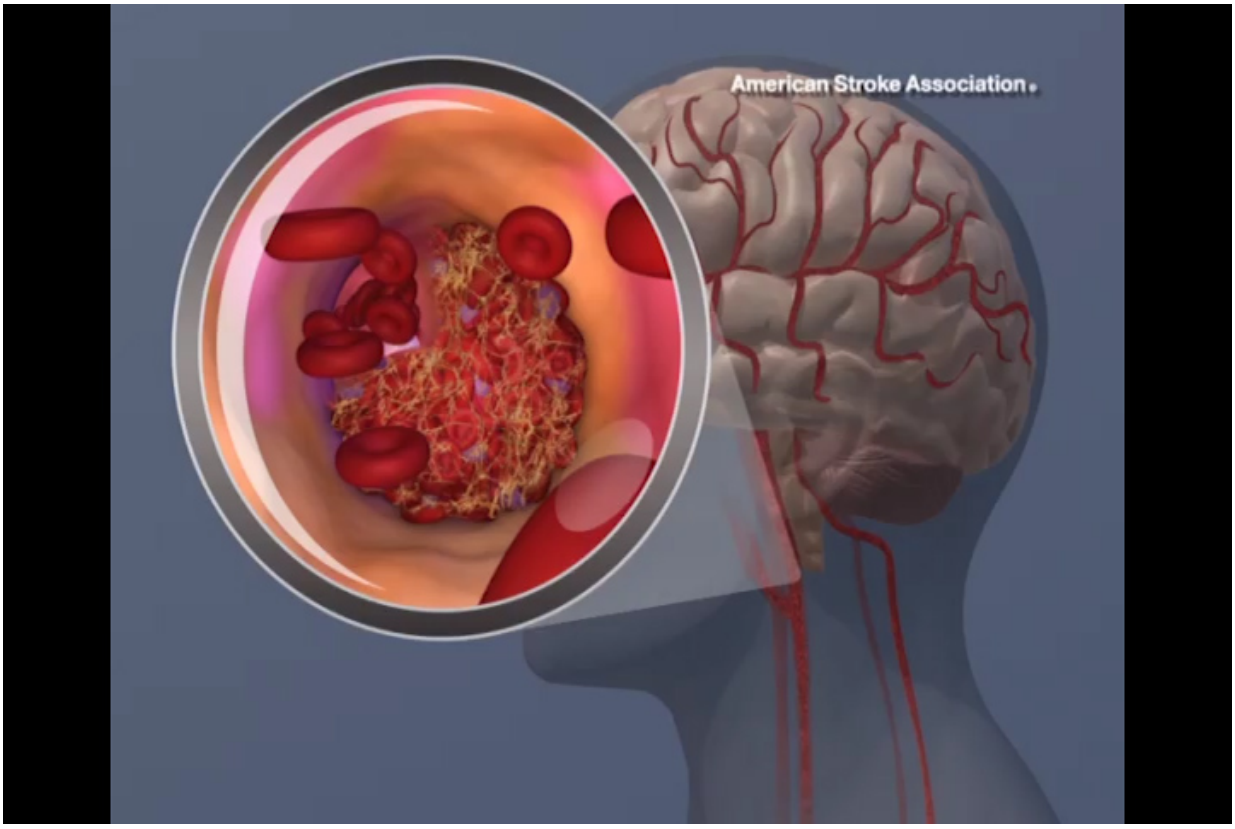

A blood clot forming in the carotid artery. Credit: American Heart Association

Testing Māori and Pacific people for an irregular heartbeat earlier could spare hundreds of people from stroke each year, a University of Auckland study has found.

The research, a collaboration between University researchers and the Heart Research Institute in Sydney, reveals for the first time that Māori and Pacific people develop Atrial Fibrillation (AF) an irregular heartbeat – a key risk factor for stroke – a decade earlier than other New Zealanders.

And when they get the condition under the age of 65, they're more than twice as likely as other Kiwis to have a high risk of stroke, according to the findings published in the Internal Medical Journal.

The work, which was funded by New Zealand Ministry of Health, has important implications for heart testing guidelines in New Zealand as it suggests that Māori and Pacific people should be tested for an irregular heartbeat earlier than the current recommended age of 65.

Researchers set out to assess risk of AF, analysing the medical records of 135,000 adults, including almost 20,000 Māori and 43,000 Pacific people.

"Māori and Pacific patients with AF were on average diagnosed with the condition at age 60 or 61, a full 10 years earlier than the average age of 71 for non-Māori and non-Pacific patients," says Dr. Matire Harwood, study co-author and Māori health researcher at the University's Te Kupenga Hauora Maori unit.

"Even more concerning was that almost half (48 per cent) of Māori and Pacific people with AF aged below 65 years at the time of diagnosis were at high risk for stroke, compared with just 22 per cent of other patients," she says.

Current guidelines suggest testing for AF starts around age 65 but, based on these findings, testing in Māori or Pacific people could start sooner. The logic is that those with an earlier AF diagnosis could start on blood-

thinning medication that will dramatically reduce their stroke risk, and this information will support clinician and patient decision-making.

"The study actually showed that irrespective of ethnicity, adherence to AF medication was poor in those most at risk of having a stroke," Dr. Harwood says.

The researchers think uptake of medication would be considerably higher if AF patients knew they were helping prevent stroke.

"That link isn't commonly known in the community. Armed with this information, it's highly likely a lot of older people with the heart rhythm issue would manage it better."

Research on improving adherence using a free iPhone has been recently completed in New Zealand.

Professor Rob Doughty, study co-author and Heart Foundation Chair of Heart Health at the University of Auckland, says a national screening programme for AF would save lives.

"Routine screening would ensure those with 'silent AF' get a diagnosis and manage their stroke risk even when their heart condition carries no symptoms," Professor Doughty says.

HRI cardiologist and heart authority Dr. Ben Freedman, study co-author says the research also has implications for Australian indigenous people.

"The same is true for Aboriginal and Torres Strait Island people who also develop AF earlier than other Australians. An early test could help people avoid a catastrophic stroke and spare families a lot of pain, frustration and heartache."

With more than 9,000 strokes in New Zealand each year – 25 every day – the need for action is clear.

"We now know that one in every three of these strokes is linked to atrial fibrillation (AF), a common condition affecting more than five per cent of older people, in which the heart beats irregularly or rapidly," he says.

AF can present with a flutter in the chest or feeling the heart racing. But some people are not even aware that they have AF, making it a 'silent' heart condition. In about a third of these AF-linked strokes, the heart condition wasn't diagnosed until after the stroke occurred.

Strokes from AF are larger, more severe and harder to survive than other strokes because they are caused by clots that form inside the heart and break off. The clots end up in a brain artery causing a 'brain attack' or stroke that might be preventable if we could detect AF and give drugs which prevent clots. Blood thinners successfully manage AF but you need to know you have the condition in order to take them.

More information: Yulong Gu et al. Burden of atrial fibrillation in Māori and Pacific people in New Zealand: a cohort study, *Internal Medicine Journal* (2017). DOI: 10.1111/imj.13648

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