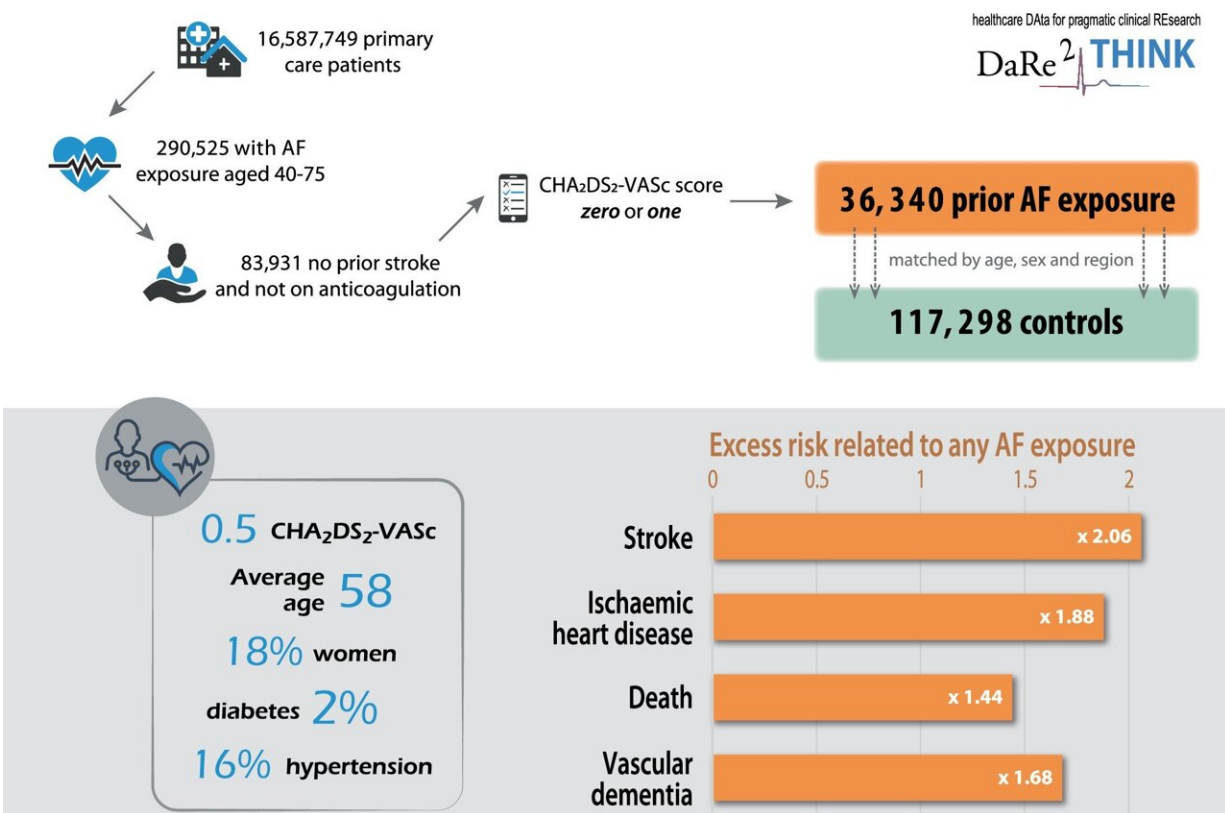


Patients with a common heart rhythm disorder are at risk of vascular dementia, study finds

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Credit: *Nature Medicine* (2024). DOI: 10.1038/s41591-024-03049-9

Patients with atrial fibrillation (AF), the most common heart rhythm disorder, have a higher than expected risk of developing some forms of

dementia, a new study has found.

AF is known to be associated with strokes and [blood clots](#) in [older patients](#) and those with other health conditions. These groups of patients are typically given blood thinners (anticoagulants) as prevention therapy, but younger individuals or those perceived as "low-risk" do not.

In this study, researchers from the University of Birmingham looked at patients with AF who would not normally be prescribed blood thinners. They assessed electronic health care records from more than 5 million primary care patients across the U.K. The findings are published in a [new article](#) in *Nature Medicine*,

The team focused on more than 36,000 patients aged 40–75 years who had a diagnosis of AF, no history of stroke, a low risk of stroke based on clinical scores, and no prescription of anticoagulants. During an average follow-up period of five years, they were compared with more than 100,000 patients without AF but matched for the same age, sex and region.

Despite being in this "low-risk" group, the patients with AF had double the chance of developing a stroke or major blood clot than those without AF. There was a 17% increased risk of developing dementia due to any cause, and a 68% higher chance of vascular dementia in patients with AF. More patients with AF also died during their follow-up (44% higher risk).

Dipak Kotecha, Professor of Cardiology at the University of Birmingham and senior author of the study said, "Atrial fibrillation is one of the most common heart conditions, with over 60 million cases expected worldwide by 2050.

"With its prevalence continuing to rise, it is crucial that we develop

strategies to prevent not only stroke, but outcomes like dementia which are a big concern for patients and health care systems. Our research highlights the urgency of addressing AF comprehensively, considering its overall impact on the well-being of patients."

Alastair Mobley, a Ph.D. researcher at the University of Birmingham and first author of the study said, "This study demonstrates a clear correlation between AF and vascular [dementia](#). This may have a similar mechanism to the association between AF and [stroke](#)."

"Ongoing clinical trials such as DaRe2THINK, currently being run by the University of Birmingham, are exploring whether [blood thinners](#) in lower-risk patients can provide a way to prevent these bad outcomes."

More information: Alastair R. Mobley et al, Thromboembolic events and vascular dementia in patients with atrial fibrillation and low apparent stroke risk, *Nature Medicine* (2024). [DOI: 10.1038/s41591-024-03049-9](https://doi.org/10.1038/s41591-024-03049-9)

Provided by University of Birmingham

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