

# New QResearch tool to improve stroke treatment

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(Medical Xpress)—University of Nottingham researchers have developed a new predictive tool to help GPs identify and treat patients at risk of stroke.

The QStroke algorithm has been shown to be better at predicting risk of primary stroke than current methods among those with atrial fibrillation who may need anticoagulants.

Stroke is a major cause of preventable disability and death, affecting around 150,000 people in the UK every year.

Research published recently in the *British Medical Journal* showed that QStroke was an improved measure of absolute [stroke risk](#) among patients without diagnoses of stroke or transient ischaemic attack (TIA). Unlike existing methods, it uses a statistical model and established risk

factors, based on variables that patients are likely to know or information recorded in their medical notes.

The algorithm was developed using anonymised patient data from the QResearch database – a not-for-profit partnership between The University of Nottingham and leading healthcare technology provider EMIS.

QStroke uses the same factors as the QRISK2 cardiovascular [risk score](#) – age; sex; ethnicity; deprivation score (linked to postcode); smoking status; diabetes; atrial fibrillation; rheumatoid arthritis; [chronic renal disease](#); treated hypertension; [family history of heart disease](#) in a near relative under 60; cholesterol/HDL ratio; systolic BP, and [body mass index](#). It also uses three extra factors—valvular heart disease, congestive cardiac failure and heart attack/angina.

The prospective open [cohort study](#) was led by Professor Julia Hippisley-Cox, from the University's Division of Primary Care. She said: "Stroke can have a devastating impact on individuals and their families, and we hope this research will help GPs identify those patients most at risk so that they can intervene and prevent disability and deaths."

She added: "We are very grateful to all the EMIS practices who contribute data to QResearch, and without whom this work would not be possible. We think our study has good validity because it was conducted in general practice, where most patients are assessed, treated and followed up, and where there are good levels of accuracy and completeness in recording diagnoses and prescribed drugs.

"However, further research is needed to evaluate clinical outcomes and cost effectiveness of the algorithm in primary care."

QStroke is available for all GP system suppliers to integrate, as with

QRISK2. GPs can also go online at [www.qstroke.org](http://www.qstroke.org) and enter information into the web calculator.

Provided by University of Nottingham

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