MedicalXpress

New GP computer software to help prevent heart disease

February 5 2009

New computer software that will allow GPs to more accurately assess which patients are most at risk of developing heart disease has been released for clinical use.

QRISK2 uses a new cardiovascular disease (CVD) equation to estimate an individual's risk of developing the heart condition over the next 10 years and draws on analysis of 15 years' worth of real primary care data from the UK.

The QRISK2 software is the result of research using QResearch, a not-for-profit partnership between The University of Nottingham and leading primary care system supplier EMIS, which has created a database of anonymous data taken from the health records of more than four million patients. Researchers from the Universities of Edinburgh and Queen Mary and from Bristol and Medway Primary Care Trusts also supported the project.

The release of the software follows an independent validation of the QRISK2 formula in a Department of Health-backed study — the third independent study to confirm that it provides a more accurate and fairer assessment of CVD risk than the widely-used Framingham risk equation.

Unlike Framingham, QRISK2 takes into account the higher risk of developing CVD to patients from deprived areas and from certain ethnic groups, particularly those with a South Asian background. It also considers other risk factors, including whether the patient already suffers

from a pre-existing condition such as diabetes.

Professor Julia Hippisley-Cox, of The University of Nottingham's Division of Primary Care, said: "We believe this formula has the potential to save many thousands of lives, by helping clinicians to more accurately predict those at risk of developing cardiovascular disease — the nation's biggest killer.

"It will arm doctors with all the information they need to decide how best to target patients with preventative measures such as lifestyle advice and cholesterol-lowering treatments."

QRISK2 will support Government plans for a £250 million national cardiovascular screening programme, which will offer checks to everyone between the ages of 40 and 70. Due to be implemented over the next two years, the programme will aim to prevent up to 9,500 heart attacks and strokes and save 2,000 lives a year.

QRISK2, and its predecessor QRISK1, were both initially validated by comparing its performance against the original Framingham score risk using a one-third sample of the QResearch database. QRISK1 was published in the BMJ in 2007 and QRISK2 in the BMJ in 2008. A second validation study was performed using the THIN database, which is similar to QRISK but uses the electronic records of patients from a different GP computer system. This was published in the journal Heart in January 2008. A third validation that was commissioned by the Department of Health has also been successfully completed by an independent academic team from the University of Oxford.

Developed in collaboration with ClinRisk Ltd, the QRISK2 software will be incorporated into existing EMIS clinical records systems — used by 56 per cent of GP surgeries in the UK. It will generate a list of patients at high-risk of cardiovascular disease, flagging up to GPs any

assessments and interventions that are needed.

Dr David Stables, Clinical Director of EMIS and a Director of QResearch, said: "We were delighted to receive such a favourable validation from the Department of Health-backed study.

"We are looking forward to completing our internal testing of the software so that EMIS GPs across the country can start to realise the benefits."

Other clinical systems suppliers will be able to access the new equation through a software development kit that has been designed to ensure the safe and accurate use of the formula. The QRISK2 algorithm is also to be made available for further academic research.

Source: University of Nottingham

Citation: New GP computer software to help prevent heart disease (2009, February 5) retrieved 9 April 2024 from https://medicalxpress.com/news/2009-02-gp-software-heart-disease.html

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.