New heart disease risk score should be recommended in the UK, say experts

July 8 2009

A new score for predicting a person's risk of heart disease performs better than the existing test and should be recommended for use in the United Kingdom by the National Institute for Health and Clinical Excellence (NICE), say researchers in a paper published on bmj.com today.

But NICE currently recommends that doctors use a modified version of the long established score (known as the Anderson Framingham model) to identify who should be offered statin treatment to reduce their risk of heart disease over the next 10 years.

In 2007, the BMJ published research showing that the new QRISK score was a more accurate measure of how many UK adults are at risk of developing heart disease and which adults are most likely to benefit from treatment compared with the Framingham model.

Now, two independent experts from the University of Oxford have compared the performance of the two scores for predicting the 10 year cardiovascular disease risk in over one million UK patients.

They tracked the progress of 1.07 million patients registered at 274 general practices in England and Wales for up to 12 years after first diagnosis of cardiovascular disease. All participants were aged between 35 and 74 at the start of the study.

They found that, on every performance measure, QRISK gave a more

accurate prediction of 10 year cardiovascular disease risk compared with Framingham.

For example, the rate of cardiovascular disease events among men was 30.5 per 1000 person years in high risk patients identified with QRISK and 23.7 per 1000 person years in high risk patients identified with Framingham. Similarly, the rate of cardiovascular disease events among women was 26.7 per 1000 person years in high risk patients identified with QRISK compared with 22.2 per 1000 person years in high risk patients identified with Framingham.

In other words, QRISK identified a group of high risk patients who will go on to experience more cardiovascular events over the next 10 years more accurately than a similar high risk group identified by Framingham, say the authors.

This finding is probably not surprising, they add, as QRISK was developed on a separate but equally large cohort of patients in the UK and is thus more tailored to the UK population. Furthermore, QRISK contains additional risk factors - social deprivation, body mass index, family history, and current treatment with blood pressure drugs - which are known to affect cardiovascular disease risk and that are not included in either of the Framingham equations.

Despite some criticisms about missing data in the development of QRISK, the authors conclude QRISK performs better than the Anderson Framingham risk score in terms of identifying a high risk population for cardiovascular disease in the UK. Based on this evidence, they support the use of QRISK in favour of Anderson Framingham

This view is reiterated by researchers from the University of Auckland, in an accompanying editorial.

However, they point out that QRISK is just the first of many continuously updateable prediction algorithms that will become available as electronic health records replace current paper based systems. They also point to concerns regarding commercial restrictions to the use of the algorithm, and suggest that freely sharing these data is more likely to facilitate their effective implementation.

Although there is a small charge for commercial use of QRISK (which is designed to ensure correct implementation and quality control with revenues going towards research, support and development), use of the software is free for academics, research, teaching, educational use and personal use www.qrisk.org

Source: British Medical Journal (news : [web](web))

Citation: New heart disease risk score should be recommended in the UK, say experts (2009, July 8) retrieved 10 April 2024 from
https://medicalxpress.com/news/2009-07-heart-disease-score-uk-experts.html