QRisk superior in diverse South Asian groups

To the Editor:
Dr N Rao and colleagues, authors of 'Cardiovascular risk assessment of South Asians in a religious setting: a feasibility study'(1) are to be congratulated for their evaluation of CVD risk scores in a diverse community setting. We are authors of QRisk2 and are concerned that the different scores used show poor agreement. For example at age 50–59 years Framingham identified 6% at high CVD risk > 20%, QRisk2 11% and JBS2 (http://www.patient.co.uk) 24%. Across all ages (30–74 years) the figures were 9%, 15% and 20% respectively. In other words this particular version of JBS2 appears to be overestimating the proportion at high risk in comparison to QRisk2 by a factor of 1.3 across all ages to more than twofold in younger people. Overestimation of risk of this extent is of concern as it could lead to major inconsistency in advice or treatment.

QRisk and QRisk2 have both been independently validated in a large population by statisticians Collins and Altman who found that QRisk was superior to both the original Framingham equation and to the NICE version recommended in JBS2(2,3). The Patient UK version of Framingham used in this study has to our knowledge, not been validated and it includes additional risk factors – central obesity and impaired fasting glucose – which may partially explain the considerably higher risks it predicts. Collins and Altman concluded from their comparison of QRisk2 and the JBS2 NICE recommended version of Framingham... *"The superior performance of the QRISK risk scores is not surprising as both QRISK risk scores were developed (and internally and externally validated) on large cohorts of general practice patients in the United Kingdom, the population for which the risk predictions were targeted and designed. This includes accounting for social deprivation, family history of coronary heart disease, and ethnicity, all known to increase the risk of developing cardiovascular disease. The Framingham score, by contrast, was developed on a comparatively small (n = 5573), homogeneous white, though treatment-naive, sample from a single town in the USA between 1968 and 1975"*(3). To ensure appropriate risk prediction for all social and ethnic groups in the UK, QRisk2 is more accurate, more equitable and is preferable to Framingham scores.

Disclosure

None.

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References

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2 Collins GS, Altman DG. An independent external validation and evaluation of QRISK cardiovascular risk prediction: a prospective open cohort study. *BMJ* 2009; **339**: b2584.
3 Collins GS, Altman DG. An independent and external validation of QRISK2 cardiovascular disease risk score: a prospective open cohort study. *BMJ* 2010; **340**: c2442.