



## Letters

# New score is needed to predict risk of coronary heart disease

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EDITOR—McManus et al show the difficulties inherent in using currently available risk scoring systems for cardiovascular disease, with only moderate agreement between methods.<sup>1</sup> They also show the methods' relatively low accuracy when compared with independently calculated Framingham risk estimates.

Much of the inaccuracy was due to a lack of risk factor information in case records and use of risk scoring in people with diagnosed cardiovascular disease, who should be considered at high risk and treated accordingly. As in previous comparison studies, the Framingham risk equations were used as the gold standard by which the performance of all the Framingham derived risk assessment tools was evaluated.<sup>2</sup>

Important treatment decisions are being based on the findings of risk assessment tools. Surprisingly, little effort has been put into assessing the accuracy of the Framingham risk score in contemporary European populations. Haq et al simply examined agreement between the Framingham risk score and other northern European risk scores but did not compare the estimated with observed risk of events.<sup>3</sup>

In a Scottish primary prevention trial the observed incidence of coronary heart disease events in the placebo arm of the trial was noted to be "close to that predicted by the Framingham regression function."<sup>4</sup> Unlike the Framingham prediction, however, the outcomes in the trial included angina and peripheral vascular disease. Comparisons are also made difficult because the methods of classifying risk factors vary between the Framingham study and subsequent studies.<sup>5</sup>

We were surprised that all of the patients studied had data on left ventricular hypertrophy available, which would require coding of an electrocardiogram to be comparable with

Framingham data; from our experience this is rarely done in general practice. Depending on which risk score a practice uses and who does the work, appreciable differences in the prevalence of high risk patients will result, together with commensurate differences in workload and prescribing costs. General practitioners using the European table's sensitivity and specificity estimates reported by McManus et al, and assuming a prevalence of high risk patients of 10%, will declare 31% of patients as at high risk largely because of the low specificity of the table. By contrast, nurses using the British programme will find that only 8% of patients are at high risk.

Although the national service framework considers all the risk scoring systems examined by McManus et al to be acceptable, their performance varies considerably. A new, properly validated risk score is needed that can be completed with readily available information, preferably without the need for laboratory tests or an electrocardiogram.

## References

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