

## Commentary: risk prediction models for people with Type 2 diabetes

**Kamlesh Khunti** PhD, MD, FRCGP, FRCP

Department of Health Sciences, University of Leicester, United Kingdom

People with Type 2 diabetes are at increased risk of cardiovascular disease, the determinants of which are multifactorial.<sup>1</sup> A number of international guidelines recommend calculating future cardiovascular disease risk for management of patients with Type 2 diabetes. There has been a plethora of cardiovascular disease risk prediction models for Type 2 diabetes and a recent systematic review identified 45 prediction models, of which 12 were developed for patients with Type 2 diabetes.<sup>2</sup> Less than one-third of these were externally validated in a diabetes population and overall the discriminative value for most prediction models was moderate.<sup>2</sup> Another systematic review confirmed limited evidence of impact on patient management and outcomes with the use of prediction models.<sup>3</sup>

In this issue of the journal, Robinson and colleagues have conducted a validation study of the Diabetes Cohort Study (DCS) CVD Risk Predictive model in people with Type 2 diabetes in New Zealand.<sup>4</sup> The strengths of this study are the large numbers of people included, the long follow-up with 12.8% of people having a cardiovascular outcome, and the validation being conducted in a population in which the score was derived. The study found that the DCS model had marginally better discrimination than the currently used New Zealand Framingham risk equation. Overall the discriminative value was moderate. Many of the previous new scores have been compared with the well-established United Kingdom Prospective Diabetes Study risk score and, therefore, this is one limitation of this study. In addition, robust evidence on the impact of use of risk prediction models on patient outcomes in terms such as adherence to medications, patient understanding or improvements in harder outcomes is lacking. Until such evidence is available, the use of risk prediction models in routine clinical practice will not be adopted.

### References

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### CORRESPONDENCE TO:

**Kamlesh Khunti**

Professor of Primary Care Diabetes and Vascular Medicine, Department of Health Sciences, University of Leicester, Gwendolen Road, Leicester LE5 4PW, UK  
kk22@le.ac.uk