

EDITORIAL

The Canadian recommendations on screening for type 2 diabetes

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In October of 2012, the *Canadian Medical Association Journal* published updated recommendations on screening for type 2 diabetes in adults, developed by the Canadian Task Force on Preventive Health Care.¹

The Task Force concluded that there is no evidence that screening for type 2 diabetes in adults who are at low to moderate risk of diabetes reduces the incidence or complications of diabetes. In adults with a higher risk they conclude that there is 'low quality evidence' of the benefit of screening using a blood test. This begs the question as to how people are divided into two risk categories, which is itself screening, and the Task Force suggests it be done using one of two risk calculators (FINDRISC² and CANRISK³). So, in effect, the Task Force endorses general population screening, first using a risk score and followed by a blood test, such as glycated haemoglobin, which is regarded as a diagnostic test.

The FINDRISC score (the CANRISK is similar) used the following to predict drug-treated diabetes over the next 10 years: age (two categories), body mass index (BMI) (in two categories), waist circumference (two categories in men and two in women), history of hypertensive blood pressure medication, history of high blood glucose, physical activity (less than 4 hours weekly) and daily consumption of vegetables, fruits or berries. The detection rate (sensitivity) in two cohorts was about 60% for a 10% false-positive rate (or about 45% for a 5% false-positive rate). Blood glucose is itself often an indication for treatment, so prediction using blood glucose is somewhat circular, and not related to morbidity or mortality.

While the Task Force's implied endorsement of screening is appropriate, the focus should have been to use BMI as the screening test, so that, if necessary, intensive weight reduction can be instituted without further screening or diagnostic testing. BMI can be used alone to determine a person's excess risk and to estimate the weight loss needed to avoid developing the disorder.⁴ Overweight is a major cause of diabetes and appropriate weight reduction is an

effective preventive measure. It is direct preventive action that is needed, not further investigation.

The Task Force acknowledges the lack of evidence that the screening process they describe reduces morbidity and age-specific mortality, notably the vascular complications of type 2 diabetes. Clinical trials have not indicated clinical outcome improvements in the general population. Avoiding blindness through regular eye examinations for early diabetic retinopathy in people with type 2 diabetes is effective, but not mentioned in the report.

It is recognized that type 2 diabetes is strongly associated with BMI^{5,6} and trials of weight reduction (notably those using bariatric surgery⁷) show that weight reduction can lead to the remission and prevention of diabetes. Consideration should therefore be given to general population screening using BMI alone without further testing other than using measures to achieve the necessary weight control.

Nicholas J Wald and James E Haddow

Wolfson Institute of Preventive Medicine, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, UK
Women & Infants Hospital/Alpert Medical School of Brown University, Providence, USA

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