The Task Force also recommends A1C as the first-line blood test for diagnosing diabetes and it argues that the 3 possible diagnostic tests (A1C, FPG and 2hrGTT) are essentially interchangeable. Although the equivalence of prognosis is debatable, there are clear differences regarding case detection. Each test has its own set of unique diabetes cases. The CANRISK study[2] found that FPG would miss over 50% of diabetes otherwise detected by 2hrGTT. Similarly, A1C would detect only about 40% of diabetes detected by either FPG and/or 2hrGTT. These discordant case detection findings have also been found in other international studies.[3,4]

Because A1C does not have a prediabetes target group (unlike FPG or 2hrGTT), these guidelines also amount to an important missed opportunity for diabetes prevention. Major studies[5] have shown that lifestyle interventions among prediabetics can reduce diabetes by more than 50%. The guidelines[1] therefore effectively undermine any new provincial diabetes prevention programs targeting prediabetes through lifestyle intervention. This "disease-focused" A1C screening is analogous to screening for lung cancer using chest x-rays, while ignoring cigarette smoking.

We believe the Task Force should consult other organizations, and revise its current guidelines toward a more effective integrated approach to diabetes screening and prevention, involving CANRISK and organized teams of health professionals.

Chris A. Robinson MA, Parmjit Sohal MD PhD
Health economist, and lead investigator for the CANRISK diabetes screening project (Robinson), Ottawa, Ont.; and the Department of Family Practice, University of British Columbia, and member of the Technical Advisory Group for the CANRISK screening project (Sohal), Vancouver, BC

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The authors respond

Robinson and Sohal[1] criticize our guideline[2] for not giving sufficient weight to the CANRISK instrument, which he and his colleagues developed, whereas Stone[3] criticizes our guideline for recommending that CANRISK be used. Finally, Ball[4] and colleagues prefer an alternative instrument (FINDRISC) to CANRISK, and suggest that our guideline (which clearly states that it applies to only adults) should be "challenged" — in part because it may not adequately reflect the high burden of risk for diabetes in Aboriginal children.

First, our guideline states that both FINDRISC and CANRISK are acceptable risk prediction instruments. Like Robinson and Sohal,[1] we believe that using validated instruments to identify people who should be screened is superior to risk stratification based primarily on age. Not all older people are at high risk of diabetes, and conversely not all young people are at low risk. Although it is understandable that Robinson is partial to the instrument that he helped to design, we stand by our assessment of the relative merits and limitations of CANRISK, which we think will be an important aid to practitioners who are trying to decide which patients should be screened for diabetes.

Second, we agree with Ball and colleagues[4] that the burden of diabetes is high in certain groups of children and young adults. We believe that validated instruments are preferable to "clinical experience" for identifying adults at high risk of diabetes. However, we agree that available instruments are imperfect. As stated in our guideline, the weak recommendation against routine screening in adults at low or moderate risk of diabetes means that screening is valid and appropriate in those who place a high value on the uncertain benefit of screening, including those from high prevalence populations. We hope that this reassures Ball and colleagues that our guideline does not preclude the use of clinical judgment.

Third, we agree with Robinson and colleagues[1] that all available screening tests for diabetes have both advantages and disadvantages, and that A1C is more expensive than fasting glucose measurements. As stated in the guideline, we placed a higher value on convenience for patients than on cost when selecting A1C as the preferred screening test.

Fourth, Stone[3] states that 4 questions in CANRISK require knowledge of blood glucose levels, and indicates that it is difficult to understand how this information would be available in the absence of screening. His comment may reflect a failure to differentiate between screening (measuring A1C or blood glucose in asymptomatic people) and case-finding (e.g., routine use of oral glucose tolerance tests in pregnant women) or clinically indicated testing (e.g., measuring blood glucose in an obese adult with blurred vision and polydipsia). Our guideline refers to screening only. So, that asymptomatic adults could have a history of abnormal A1C or fasting glucose values (previously obtained for clinical indications or for case-finding) is clear, even if they have never been screened for diabetes. Stone[3] also states that the Task Force has "failed to acknowledge the inherent conflict of interest between guideline developers and those who pay for their time to develop guidelines." We can reassure Stone that Task Force members are volunteers who are not paid for their service.

Marcello Tonelli MD SM, Kevin Pottie MD; for the Canadian Task Force on Preventive Health Care
The Department of Family Medicine (Pottie), University of Ottawa, Ottawa, Ont.; and the Division of Nephrology (Tonelli), Department of Medicine, University of Alberta, Edmonton, Alta.

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