0.05). The sorbitol concentrations were significantly high in the patients with diabetic retinopathy (26 patients, 90.7 ± 46.1, $P < 0.01$) and neuropathy (34 patients, 80.9 ± 44.3, $P < 0.05$) compared with those in patients without these complications (21 patients, 47.9 ± 24.7 and 16 patients, 48.6 ± 26.6).

Thus, this modified assay system may be the best way to measure sorbitol at the present time. Precise measurement of erythrocyte sorbitol content may assist in the understanding of the pathophysiological condition of diabetes and may be useful for certification of distorted sorbitol metabolism and prevention of the development of diabetic complications in clinical practice.

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Glucose Tolerance, Insulin Sensitivity, and the Homeostasis Model Assessment Method

Matsumoto et al. (1) have recently published an impressive study of oral glucose tolerance test (OGTT) data from obese and nonobese Japanese subjects. They studied insulin secretion and insulin sensitivity findings derived from OGTT data and homeostasis model assessment (HOMA).

As they described briefly in the METHODS section, insulin resistance (*R*) was assessed as the *R* determined with HOMA, with R = insulin/(22.5 $e^{-\ln \text{glucose}}$). However, simple mathematics dictate that this calculation is identical to (insulin × glucose)/22.5.

It would be simpler to refer to this HOMA method as a mere multiplication of baseline values of insulin and glucose.

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Response to van Haeften

The formula for the insulin resistance index in homeostasis model assessment

In our article (1), the formula for insulin resistance (*R*) assessed by homeostasis model assessment (HOMA) is presented as HOMA (R) = insulin/(22.5$e^{-\ln \text{glucose}}$). As van Haeften mentions (2), the formula insulin/(22.5$e^{-\ln \text{glucose}}$) is equal to (insulin × glucose)/22.5. In the original report

from Matthews et al. (3), the formula for HOMA (*R*) is presented as insulin/($22.5e^{-\ln \text{glucose}}$). Therefore, we described this formula in the METHODS section of our article according to the original paper. However, in recent publications from other investigators, the formula (insulin × glucose)/22.5 is chosen for HOMA (*R*) (4,5). The latter formula makes it simpler to calculate insulin resistance index than does the original formula. Thus, we are in agreement with your valuable comment.

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Screening for Gestational Diabetes

What is the no-show rate?

The recent report from the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus (1) has recommended retention of the two-step process for diagnosing gestational diabetes. The process involves using a 50-g glucose load as a screening test, which, if positive, is followed by a 100-g diagnostic test. One of the increasingly heard criticisms of this process is the so-called "no-show" rate (2). Since Magee et al. (3) drew attention to this phenomenon when 91 of 456 positive screened individuals refused the diagnostic test, others have used this to argue against the use of a screening test. They have suggested instead a one-step process involving only a diagnostic test for all pregnant women (2). We have been surprised by the high patient no-show rate quoted (2–4).

The Antenatal Clinic at Royal North Shore Hospital, Sydney, Australia, follows the two-step screening/diagnostic process. The Clinic serves a population of women that broadly reflects the multicultural background of the larger Australian cities. Of the women, 57.7% were not born in Australia, and 11.5% require interpreters. All women receive information about the screening process at their booking-in visit (16–20 weeks). At 26–28 weeks, they are offered the 50-g glucose challenge test at their routine clinic visit. The testing is done by midwives who attend and supervise the running of the clinic. Positive tests are followed up by the midwives. Women with a positive screening test (a 1-h value ≥7.8 mmol/l) are offered the diagnostic test.

We have examined our records from 1 January 1995 to 30 June 1997. Of 2,133 patients who underwent screening, 477 were positive. All these patients attended for the diagnostic test. This gives us a simply calculated no-show rate of 0%. We experienced our first no-show in July 1997.

These data, which involve a number of patients similar to those included in the original Magee et al. publication, show that the two-step screening/diagnostic process can be made to work effectively. A no-show rate in one setting cannot be assumed to apply elsewhere. Strategies to limit the no-show rate are an alternative to proceeding to a diagnostic test in all patients.

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Response to Hitchman et al.

The purpose of glucose tolerance testing in pregnancy is to detect women with gestational diabetes mellitus (GDM). The purpose of a preliminary glucose challenge test is to reduce the number of women who must have a full glucose tolerance test (GTT). When the full GTT, as widely practiced in the U.S., involves a minimum commitment of 3 h, 100 g of a glucose solution, and four blood tests, this is both understandable and commendable.

The number of women who test positive on a challenge test and who do not proceed to a full GTT has not been specifically examined in the literature but can be gleaned from incidental data. In Western societies, it appears to be ~15–25%. That around one-fifth of all women who have a positive challenge test, of whom about a quarter could be expected to have GDM, do not proceed to the diagnostic GTT must be a cause for concern. In average hands, a two-stage testing procedure will not only underdiagnose GDM but will delay treatment of diagnosed women by the time taken for the second test to be done.

With the above reservations in mind, the results reported by Hitchman et al. (1) are outstanding and demonstrate what can be achieved by a dedicated and enthusiastic staff. To achieve total compliance over a 30-month period with one test is remarkable; to maintain this for a two-stage pro-