

OBSERVATIONS

**Testing for Gestational Diabetes Mellitus in Australia**

The American Diabetes Association published new recommendations for the detection and diagnosis of gestational diabetes mellitus in 2011 (1). These criteria were based on the consensus opinion of the International Association of the Diabetes and Pregnancy Study Groups (IADPSG) (2). The Australasian Diabetes in Pregnancy Society (ADIPS) has posted new guidelines (www.adips.org) to replace those used since 1991 (3).

The ADIPS guidelines endorse the method of testing and the diagnostic criteria used by the American Diabetes Association. These are early testing for women with high risk factors; no preliminary glucose challenge test; and for all women not known to have diabetes, a 75-g oral glucose tolerance test at 24–28 weeks' gestation, with gestational diabetes mellitus diagnosed if one of the following venous plasma glucose values is abnormal: fasting  $\geq 5.1$ , 1 h  $\geq 10.0$ , and 2 h  $\geq 8.5$  mmol/L. However, ADIPS guidelines differ in two major aspects.

The first aspect relates to the term "overt diabetes." In Australia the incidence of type 2 diabetes is increasing, and the age of diagnosis is decreasing. This has resulted in more women having abnormalities of glucose tolerance, including undiagnosed diabetes detected for the first time during pregnancy. The term overt diabetes has been applied to women who meet the World Health Organization criteria for diabetes on the pregnancy glucose tolerance test and is suggestive of preexisting diabetes. However, the proportion of women in this category in the general Australian obstetric population, although unknown, is thought to be small. We have avoided inclusion of this term because feedback

from clinicians has suggested it adds an extra layer of complexity and engenders confusion. Management of these women during pregnancy should be guided by clinical judgment and glucose tolerance status reassessed postpartum.

The second aspect relates to the inclusion of treatment targets. It was felt that with the new diagnostic criteria, guidance with respect to fasting and postprandial treatment targets would be appropriate. It is acknowledged that no randomized treatment trial has been conducted using the IADPSG diagnostic criteria and no trial has defined the optimal treatment targets. However, considering recent information about glycemia in normal pregnancy (4), the following self monitoring blood glucose (BG) treatment targets are suggested based on 2 SDs above the mean values for pregnant women without known risk factors.

- Fasting capillary BG:  $\leq 5.0$  mmol/L (90 mg/dL)
- 1-h BG after commencing meal:  $\leq 7.4$  mmol/L (133 mg/dL)
- 2-h BG after commencing meal:  $\leq 6.7$  mmol/L (121 mg/dL)

The target fasting glucose level was very much determined by the diagnostic level. The 1-h and 2-h levels are not dissimilar to the  $<7.8$  and  $<6.7$  mmol/L, respectively, advised by the Fifth International Workshop Conference on Gestational Diabetes (5). However the benefits of these suggested treatment targets should ideally be examined in RCTs.

It is important that the movement toward international diagnostic consensus is maintained. However, as seen in the ADIPS guidelines, there will need to be minor variations to reflect local conditions. It is intended that the guidelines will be a dynamic document and changes will be made as more evidence becomes available.

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