

Are there differing patterns of dysglycaemia in women diagnosed with GDM according to new versus old ADIPS criteria? (47766)

Robyn A Barnes^{1 2}, Tang Wong^{1 3 4}, Glynis P Ross^{1 4}, Carmel E Smart^{2 5}, Clare E Collins^{2 6}, Lesley MacDonald-Wicks^{2 6}, Jeff R Flack^{1 3 7}

1. *Bankstown-Lidcombe Hospital, Bankstown, NSW, Australia*
2. *Faculty of Health and Medicine, The University of Newcastle, Newcastle, NSW, Australia*
3. *Faculty of Medicine, University of NSW, Sydney, NSW, Australia*
4. *University of Sydney, Sydney, NSW, Australia*
5. *Department of Paediatric Endocrinology and Diabetes, John Hunter Children's Hospital, Newcastle, NSW, Australia*
6. *Priority Research Centre in Physical Activity and Nutrition, University of Newcastle, Callaghan, NSW, Australia*
7. *School of Medicine, Western Sydney University, Campbelltown, NSW, Australia*

Background: The new Australasian Diabetes in Pregnancy Society (ADIPS) 2014 diagnostic criteria includes a lower fasting 75g oral Glucose Tolerance Test (oGTT) cut-point of ≥ 5.1 mmol/L and a higher 2-hour cut-point of ≥ 8.5 mmol/L. The change in criteria may impact on the patterns of dysglycaemia in Gestational Diabetes Mellitus (GDM) clinic populations. Conventional Medical Nutrition Therapy (MNT) focuses on mealtime carbohydrate intake to reduce post prandial blood glucose levels.

Aim: Compare the proportion of women diagnosed with GDM by glucose measure (fasting and 2-hour values) in the oGTT according to the ADIPS 2014 versus ADIPS 1998 criteria.

Methods: The oGTT results were extracted from the Sydney South West Pathology Service database for singleton pregnancies from 2011-2015. These results were from women who had an oGTT because they either failed a Glucose Challenge Test or proceeded directly to an oGTT if at high risk of GDM. Analyses of the proportion of fasting and 2-hour GDM diagnoses were undertaken according either ADIPS 2014 criteria or ADIPS 1998 criteria. Statistical significance was assessed using Chi-squared analyses.

Results: Of 10,967 pregnancies, 3687 pregnancies had complete oGTT data. There were 1330 vs 1304 women (36.2% vs 35.4%) diagnosed with GDM according to the 2014 versus 1998 criteria. Compared to 1998 ADIPS, those classified as GDM according to new criteria: significantly more were diagnosed by the fasting value only (598 or 45.0% vs 207 or 15.9% $p < 0.0001$), significantly fewer by the 2-hour value only (487 or 36.6% vs 928 or 71.2% $p < 0.0001$) and significantly more were diagnosed by both values (245 or 18.4% vs 169 or 13.0% $p < 0.05$).

Conclusions: Elevated fasting glycaemia is generally considered to be less amenable to conventional MNT. However, given a possible increase in impaired fasting glycaemia in GDM clinics with the new criteria, further MNT research in this area is warranted.