

IMPLEMENTATION OF WHO GESTATIONAL DIABETES MELLITUS DIAGNOSTIC CRITERIA - HAS IT CHANGED THE CLINIC POPULATION?

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Background:

Based on the Hyperglycemia and Adverse Pregnancy Outcomes (HAPO) Study findings¹, the International Association of Diabetes and Pregnancy Study Groups (IADPSG) proposed new Gestational Diabetes Mellitus (GDM) diagnostic criteria associated with a 1.75 increased risk of adverse outcomes².

Endorsed in 2013 by WHO³, worldwide adoption has been variable.

Our Department implemented these criteria from 1-Mar-2016.

Aim:

To compare the characteristics and outcomes in GDM women diagnosed by new criteria (Group1) with those diagnosed by previous Australasian Diabetes in Pregnancy Society (ADIPS1988) criteria⁴ (Group2).

Methods [1]:

From our computerised database of prospectively collected data from an ethnically-diverse, high-risk GDM cohort, we compared:

- women diagnosed from 1-Mar-2016 to 31-Dec-2016 – (Group1);
- with
- women diagnosed from 1-Mar-2015 to 31-Dec-2015 – (Group2).

Group1 outcomes are based on those who have delivered [n=283] (excluding those recently referred or early in management).

Management involves two formal diet/GDM education sessions and weekly to fortnightly multidisciplinary clinic visits including Endocrinologist.

Women self-monitored finger-prick glucose, fasting and post-prandially.

Methods [2]:

Insulin was prescribed if criteria were not met:

- (Group1) FBGL<5.3mmol/L, and 2hr post-prandial BGL<7.0mmol/L;
- (Group2) FBGL<5.5mmol/L, and 2hr post-prandial BGL<7.0mmol/L.

Metformin was not used.

Results:

There were 411 women (Group1) and 337 women (Group2).

Comparing Group1 versus Group2:

- There was earlier diagnosis of GDM : (mean \pm SD) 23.3 \pm 5.9 vs 24.1 \pm 5.2 weeks ($p<0.05$);

and

- There were significant differences by major ethnic background group:
 - ❖ European 29.0% versus 23.7%;
 - ❖ Middle Eastern 20.9% versus 21.1%;
 - ❖ East & South East Asian 20.2% versus 33.5%;
 - ❖ South Asian 21.4% versus 16.6%.

Insulin prescription was:

- 30.7% (Group1) versus
- 38.9% (Group2).

Outcomes:

- SGA and LGA rates were *respectively*: (Group1) 9.9% and 12.4% versus (Group2) 4.9% and 12.2%.

Conclusions:

Following adoption of new WHO GDM diagnostic criteria, there was:

- a 22% increased workload;
- significant reduction in East & South East Asian background diagnoses;
- less insulin use; and
- similar LGA.

Acknowledgement:

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Reference:

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