The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

College Statement
C-Obs 7
1st Endorsed: November 1991
Current: November 2011
Review: November 2014

C-Obs 7

Diagnosis of Gestational Diabetes Mellitus

Current evidence suggests that there is a benefit in reduced perinatal morbidity in screening for and treating gestational diabetes mellitus. When screening for gestational diabetes, there should be uniformity in the testing used and the subsequent follow up. The following steps are recommended.

Biochemical screening for gestational diabetes should be performed between 26 and 28 weeks of gestation. Earlier testing may be performed in women at particularly high risk of gestational diabetes (e.g. gestational diabetes in a previous pregnancy or current obesity) and then repeated at 26-28 weeks gestation, if negative.

Screening regimens include (i) a Glucose Challenge Test (GCT) followed by a Glucose Tolerance Test (GTT) if the GCT is abnormal, or (ii) GTT as the primary screening test, given the reduced sensitivity of the GCT. Where GCT is used as the initial screening test, plasma glucose should be measured 1 hour after either a 50g or 75g oral glucose load given in the non-fasting state. Women with a plasma glucose value at 1 hour after a 50g load of $\geq$ 7.8 mmol/l or after a 75g load of $\geq$ 8.0 mmol/l are regarded as positive and should undergo a full glucose tolerance test, (fasting, 75g glucose, 0, and 2 hr glucose estimations).

Screening with a full GTT should be performed in women at high risk of GDM (previous GDM, obesity, family history type 2 DM), and those with a positive GCT. Some clinicians may choose to omit the GCT and recommend a full GTT. They may so recommend for all pregnant women or only those with a high likelihood of recall after a GCT. These clinicians may feel that a dual testing regimen (GCT then GTT if GCT abnormal) is inconvenient for the women involved, increases the administrative workload (recall processes) and inevitably delays the commencement of therapy.

The diagnosis of gestational diabetes should be made on a GTT following a fasting, 75g 2hr glucose tolerance test. Fasting glucose level of $\geq$ 5.5mmol/l is diagnostic of gestational diabetes, as is a 2 hr level $\geq$ 8.0 mmol/l by Australian criteria, or $\geq$ 9.0 mmol/l by NZ criteria.

These recommendations must not preclude confirmation of diabetes at any stage of pregnancy if there are clinical features to suggest the diagnosis.

Women who had gestational diabetes should have a repeat 75g oral glucose tolerance test performed 6 to 8 weeks after delivery. This should be evaluated according to standard WHO criteria for the non-pregnant state. Women who do not have diabetes mellitus at this time should still be regarded as at risk of developing diabetes mellitus later in life and should be screened every two to three years. The diagnosis of GDM is an opportunity to counsel women regarding weight management and lifestyle modification to attenuate the risks associated with glucose intolerance in later life.

References

1. J J N Oats and H D McIntyre. Revision of guidelines for the management of gestational diabetes mellitus, Letter to the Editor. MJA September 2004; 181 (6): 342. Available at: http://www.mja.com.au/public/issues/181_06_200904/letters_200904_fm-2.html

2. Gestational diabetes mellitus - management guidelines, updated by ADIPS December 2002, (amendment published as a letter to the Editor of the MJA).

3. ADIPS Gestational diabetes mellitus - management guidelines. L Hoffman, C Nolan, J D Wilson, J J N Oats and D Simmons. MJA 1998; 169: 93-97. Available at: http://www.mja.com.au/public/issues/jul20/hoffman/hoffman.html

4. Crowther CA, Hiller JE, Moss, JR, McPhee AJ, Jeffries WS and Robinson JS. Australian Carbohydrate Intolerance Study in Pregnant Women (ACHOIS) Trial Group. Effect of Treatment of Gestational Diabetes Mellitus on Pregnancy Outcomes. The New England Journal of Medicine 2005; 352 (24): 2477-2486.

Links to other related College Statements

(C-Gen 15) Evidence-based Medicine, Obstetrics and Gynaecology
http://www.ranzcog.edu.au/component/docman/doc_download/894-c-gen-15-evidence-based-medicine-obstetrics-and-gynaecology.html?Itemid=341

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