

Position Statement

Subject: **Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus in Australia**
Approval Date: January 2015
Review Date: March 2016
Review By: RCPA and AACB
Number: 1/2015

Summary

The RCPA and AACB endorses the Australasian Diabetes in Pregnancy Society (ADIPS) 2014 Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus in Australia (Nankervis 2013, ADIPS 2014) and that these guidelines should be used in preference to the Previous ADIPS Guidelines (Hoffman 1998, ADIPS 1998).

Comments on the endorsement

In endorsing making this recommendation the RCPA and AACB recognise the following:

1. That patient management decisions are taken by the treating doctor and patient care team and practitioners may have valid reasons for acting contrary to these guidelines.
2. That doctors and organisations wishing to implement the ADIPS 2014 criteria may need some time to arrange resources to support these criteria.
3. That the evidence base for the proposed guidelines is low ("Quality of evidence: very low; Strength of recommendation: weak" WHO 2013), however it is more robust than the basis for the ADIPS 1998 criteria.
4. That adoption brings Australia into line with some other organisations internationally, and equalises risk for all glucose measurements taken during the test.
5. In response to practice variability related to items 1 and 2 above, laboratories are recommended to adopt and promote standardised terminology as follows.
POGTT – Pregnancy Oral Glucose Tolerance Test
POGTT (ADIPS 2014) – POGTT performed and interpreted according to the ADIPS 2014 criteria
POGTT (ADIPS 1998) – POGTT interpreted according to the ADIPS 1998 criteria (note that collection of a 1 hour sample is not required for the ADIPS 1998 testing, however routine collection of this sample is recommended to allow interpretation of the results against the 2014 criteria should this be required).

Commentary on the endorsement

The ADIPS 2014 guidelines for the diagnosis of GDM (Nankervis 2013) have been developed by ADIPS as a replacement to previous ADIPS guidelines for GDM (Hoffman 1998). The 2014 guidelines are very similar to those recommended by the International Association of Diabetes and Pregnancy Study Groups (IADPSG, 2010) and those endorsed by the World Health Organisation (WHO 2013).

There are two main changes in the ADIPS 2014 recommendations, (A) the replacement of the glucose challenge (50 g or 75 glucose load with 1 hour glucose measurement) with oral glucose tolerance test as the initial test and (B) the adoption of revised criteria for performance and interpretation of OGTT in pregnancy.

A. The reasons for adopting direct testing with OGTT can be summarised as follows:

1. The sensitivity of the Glucose challenge may be as low as 75% (van Leeuwen 2005) leading to patients missing a diagnosis of GDM.
2. Diagnosis and therapy of GDM is delayed by the two-step process, sometimes beyond 30 weeks' due to delays in arranging for and performing the second test.
3. Some women do not ever undertake the second test when indicated
4. Health services will be able to accurately determine the incidence of GDM using uniform criteria.

The reasons for adopting the ADIPS 2014 criteria for the POGTT are as follows

1. The previous criteria (ADIPS 1998) were recognised at the time to be “ad-hoc” and not evidence based.
2. The organisation responsible for the 1998 criteria (ADIPS) is responsible for the revision.
3. The 2014 guidelines are also formally endorsed by the Australian Diabetes Society (ADS) and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), the two organisations most closely representing the physicians managing women with GDM.
4. The 2014 ADIPS criteria were developed by the IADPSG and are endorsed by the WHO, albeit at a low level of evidence. (Quality of evidence: very low; Strength of recommendation: weak)
5. The 2014 ADIPS criteria provide similar risk information at baseline, 1 hour and 2 hour time points in the POGTT, the 1999 criteria detect women at lower risk at the 2 hour time point than at the baseline timepoint.
6. The 1999 ADIPS criteria are not in use in any other countries, and thus international research is unlikely to provide direct information related to the meaning of these criteria.
7. We note that several Australian and international organisations have considered the IADPSG criteria and decided not to adopt the recommendations. These include the Royal Australian College of General Practitioners, the Endocrine Society of Australia and the American College of Gynaecologists (ACOG 2013). The American Diabetes Association recognises both the IADPSG criteria as well as other accepted American protocols but recognises the benefits of uniform criteria.

Further comments

The WHO and IADPSG diagnostic criteria are not fully adopted in the ADIPS 2014 criteria. Specifically the category of “diabetes mellitus in pregnancy” is not recognised. In the WHO criteria pregnant women first meeting the diagnostic criteria for diabetes in non-pregnant women are given this classification whereas these patients are diagnosed with gestational diabetes by the ADIPS 2014 criteria.

It is recognised that there remains controversy about the diagnostic criteria for GDM and the appropriate response to the diagnosis. The relationship between maternal glucose and adverse foetal characteristics is continuous without an obvious risk threshold. Thus identifying patient at a lower risk will entail managing more patients with consequent health costs and costs to the patient in terms of time and concern. All interested parties recognise the need for further research into the diagnostic criteria for GDM.

References

Nankervis A, McIntyre HD, Moses R, Ross GP, Callaway L, Porter C, Jeffries W, Boorman C, De Vries B, McElduff A for the Australasian Diabetes in Pregnancy Society. ADIPS Consensus Guidelines for the Testing and Diagnosis of Gestational Diabetes Mellitus in Australia 2014

Hoffman L, Nolan C, Wilson JD, Oats JJN, Simmons D. Gestational diabetes mellitus -- management guidelines. The Australasian Diabetes in Pregnancy Society. MJA 1998; 169: 93-97

WHO. Diagnostic Criteria and Classification of Hyperglycaemia First Detected in Pregnancy. 2013. WHO/NMH/MND/13.2

International Association Of Diabetes And Pregnancy Study Groups Consensus Panel (IADPSG) . International Association of Diabetes and Pregnancy Study Groups Recommendations on the Diagnosis and classification of Hyperglycemia in Pregnancy. Diabetes Care 2010; 33:676-82.

van Leeuwen M, Louwerse MD, Opmeer BC, Limpens J, Serlie MJ, Reitsma JB, Mola BWJ. Glucose challenge test for detecting gestational diabetes mellitus: a systematic review. BJOG 2012;119:393–401.

American College of Obstetricians and Gynaecologists (ACOG) Practice Bulletin number 137, August 2013. Gestational Diabetes Mellitus.

American Diabetes Association (ADA) Diagnosis and Classification of Diabetes Mellitus 2014. Diabetes Care 2014; 37(Supplement 1), S81-S90.