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TEST CHANGES IN THE DIAGNOSIS OF DIABETES MELLITUS

IMPORTANT CHANGES IN THE DIAGNOSIS OF DIABETES MELLITUS (DM) AND GESTATIONAL DIABETES MELLITUS (GDM).

As of November 1st 2014, haemoglobin A1c (HbA1c) has been recommended as an MBS rebateable diagnostic test in patients at risk of T2 diabetes mellitus. For diagnosis, the test is limited to one episode per year (although if positive, up to four subsequent episodes for monitoring are permitted as per the current MBS schedule). HbA1c as a diagnostic test for type 2 diabetes mellitus has several advantages over a glucose tolerance test or fasting glucose, including avoiding the need for the patient to undergo an overnight fast or undertaking a carbohydrate rich diet for three days for an oral glucose tolerance test. However, there are some medical conditions which may affect the measured HbA1c value including haemolytic anaemias, anaemia of chronic disease, chronic kidney disease, severe liver disease, iron, vitamin B12 and/or folate deficiency, certain haemoglobinopathies and regular phlebotomy performed for medical indications or for recent blood donation. Generally, the test can still be performed in these instances, but relevant clinical notes should be added to the request form to assist in result interpretation.

Fasting blood glucose level and oral glucose tolerance tests (OGTT) are still available as alternative methods for diagnosing diabetes mellitus, and may still be recommended following measurement of HbA1c levels where the results are equivocal and there is a high clinical suspicion of impaired glucose handling. It should be noted that HbA1c for diagnosis is not recommended in type 1 diabetes mellitus or gestational diabetes mellitus.

Gestational diabetes mellitus (GDM): Southern-IML Pathology are now using the WHO/ADIPS criteria for the diagnosis of gestational diabetes, in which a fasting, one hour and two hour blood samples are assayed. The cut off values for a positive diagnosis of GDM are any or all of a fasting glucose greater than or equal to 5.1 mmol/L, a one hour sample greater than or equal to 10 mmol/L and a two hour sample greater than or equal to 8.5 mmol/L. Depending on associated risk factors pregnant women with normal fasting blood glucose in early pregnancy should proceed to a pregnancy oral glucose tolerance test (POGTT) at the end of the second trimester. However, patients with a raised fasting glucose ***level greater than or equal to 5.1*** ml at any stage of pregnancy are considered to be diagnostic of gestational diabetes, and in most instances will not require a POGTT at the end of the second trimester for confirmation.

As of July 1st 2014, ADIPS (The Australian Diabetes in Pregnancy Society) no longer recommend the performance of a non-fasting glucose challenge test, as this test has been found to lack both sensitivity and specificity and is no longer part of the diagnostic algorithm (ref ADIPS consensus guidelines for the testing and diagnosis of gestational diabetes mellitus in Australia, 14th February 2013).

If you have any queries concerning any of these modifications to our testing protocols, please don't hesitate to contact me via email or on the telephone number below.

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