Glucose Tolerance Testing During the COVID-19 Pandemic: Guidance for Maternity Care Providers at the Royal Hospital for Women

Although universal screening of all pregnancies for gestational diabetes mellitus (GDM) remains the standard of care in Australia, the Royal Hospital for Women has adopted the testing advice from ADIPS for temporary changes to GDM screening during the COVID-19 pandemic.

- This supports social distancing and aims to reduce the need for prolonged attendance at laboratories, whilst balancing risks associated with undiagnosed gestational diabetes.
- It is not a permanent change to the screening requirements for gestational diabetes.

These recommendations are as follows:

1. **Early testing (first trimester) for high risk women:**
   - For women with risk factors for pre-existing, undiagnosed diabetes, **perform HbA1c**
     - Risk factors include: BMI ≥ 30, Ethnicity: Aboriginal/Torres Strait Islander, Asian, South Asian, Pacific Islander, Previous GDM, Maternal age ≥40 years, Strong Family History of Diabetes, Previous macrosomia, Previous perinatal loss, PCOS, Medications e.g. corticosteroids, antipsychotics, Multiple pregnancy
     - Diagnose GDM if HbA1c is 41 mmol/mol or more (5.9%)
     - Provide GDM management according to result
     - No OGTT in first trimester

2. **For women who have not been diagnosed with GDM in a previous pregnancy**

   Women can choose to:
   - Perform the oral glucose tolerance test (GTT) at 24-28 weeks (standard care)
   - Perform a fasting blood glucose test at 24-28 week and be triaged as below
     - FBG is 4.6mmol/L or less
       - OGTT not required
       - Continue usual maternity care
     - FBG is 5.1mmol/L or greater
       - OGTT not required
       - Provide usual GDM management
     - FBG between 4.7 and 5.0mmol/L
       - OGTT required, with care taken around social distancing and minimising contact
       - Provide care as per OGTT result and GDM management

3. **For women who have been diagnosed with GDM in a previous pregnancy, and with a normal HbA1c in the first trimester**

   Women can choose to:
   - Perform the oral glucose tolerance test (GTT) at 24-28 weeks (standard care)
   - Perform a fasting blood glucose test at 24-28 week and be triaged as per 2 above
   - Be automatically considered to have GDM and commence home blood glucose monitoring

Screening and diagnosis of GDM during COVID-19 pandemic

COVID-19 pandemic
• Applies to: Pregnant women regardless of COVID-19 status
• Rational: To support social distancing and minimise blood collection time (i.e. not based on new evidence)
• Implementation: Commence as practicable and convenient. Seek expert advice as clinically appropriate.

Risk factors for GDM
• BMI > 30 kg/m² (pre-pregnancy or on entry to care)
• Ethnicity (Asian, Indian subcontinent, Aboriginal, Torres Strait Islander, Pacific Islander, Maori, Middle Eastern, non-white African)
• Previous GDM
• Previous elevated BGL
• Maternal age ≥ 40 years
• Family history of DM (1st degree relative or sister with GDM)
• Previous macrosomia (birth weight > 4000 g or > 90th percentile)
• Previous perinatal loss
• Polycystic ovarian syndrome
• Medications (corticosteroids, antipsychotics)
• Multiple pregnancy

Assess all women for risk factors

Risk factors or GDM clinical concerns?
Yes
• First trimester HbA1c

No
Check fasting FBG
• At 24–28 weeks gestation or
• If clinical concerns after first trimester

HbA1c > 41 mmol/mol (53%)

No

Yes

FBG ≤ 4.6 mmol/L
• OGGT not required

If FBG 4.7–5.8 mmol/L
• OGGT recommended
• If COVID-19 suspected or confirmed seek expert clinical advice
• OGGT advice for women
• Fast (except for water) for 8–14 hours prior to OGGT
• Take usual medications

OGTT normal?
Yes
Routine antenatal care
• Unless clinical concerns

No
GDM care

Postnatal follow-up
• Delay OGGT for 12 months or
• If concerns about type 2 diabetes, Hba1c at 6 weeks.
• Notify GP

GDM diagnosis
• HbA1c first trimester only
• ≥ 4.1 mmol/mol (or 0.9%)
• OGGT one or more of:
  • Fasting ≥ 5.1 mmol/L
  • 1 hour ≥ 10 mmol/L
  • 2 hour ≥ 8.5 mmol/L