



**TYGERBERG HOSPITAL**  
**Department of Obstetrics and Gynaecology**  
**Obstetrics High Risk Clinic**



**PROTOCOL for ORAL GLUCOSE TOLERANCE TEST at the HIGH RISK CLINIC**

**Administration of 75g Oral Glucose Tolerance Test at Tygerberg Hospital High Risk Clinic**

**A. Context:**

The 75g oral glucose tolerance test (OGTT) is the gold standard for diagnosing gestational diabetes (GDM).

The best time to screen for GDM is at 24-28 weeks of gestation.

**B. Confirm indication for the antenatal OGTT:**

*(If any of these criteria are met, a pregnant patient may qualify for an OGTT)*

- Previous gestational diabetes (do an OGTT at booking AND again at 24-28w if booking OGTT normal)
- Unexplained intra-uterine death in a previous pregnancy
- Previous macrosomic baby > 4.5 kg
- Body Mass Index at booking >40 kg/m<sup>2</sup>
- Maternal age >40 years
- Family history of diabetes (first-degree relative with diabetes)
- 1+ glucose or more on diagnostic strips
- Family origin with a high prevalence of diabetes (Asiatic)
- Acanthosis nigricans
- Polycystic ovarian syndrome
- If requested by clinician when GDM screening is clinically indicated (for example, unexplained polyhydramnios, women on chronic prednisone therapy, and more).

**C. Contra- Indications to the 75g OGTT (antenatal):**

*(If any of these criteria are met, the OGTT should be replaced with a meal test. If the OGTT is still indicated, it should be done at a future visit).*

- Patient with current (confirmed, true) fasting value  $\geq 7.0$ mmol/L (do meal test instead).
- Patient that is not NPO for at least 8hrs
- Patient already known with any form of pre-gestational diabetes
- Patient previously diagnosed with GDM on 75g OGTT done at another unit

#### **D. Administration of 75g OGTT**

1. Confirm indication for OGTT.
2. Check for any contra-indications to the OGTT.
3. Do a capillary glucose sample (on a cleaned finger). Document the time and the value as the "fasting" glucose on the provided form.
4. If the fasting value is  $\geq 7.0$ mmol/L, confirm TRUE fasting of ALL food and non-water beverages for  $\geq 8$ hrs and proceed with a meal test.
5. If the fasting value is  $< 7.0$ mmol/L, proceed with the 75g OGTT.
6. OGTT:
  - Dissolve prepacked 75g Dextrose in 250-300ml cold water
  - The patient is required to ingest the glucose over a short time period -  $< 10$ min

#### *What to tell the patient:*

- Take small sips of glucose solution over 10min to limit risk of nausea/vomiting
- During the time from drinking the 75g glucose solution, until the 2hour capillary glucose sample is done, a patient is requested to:
  - Avoid drinking any further fluids including water
  - Avoid eating
  - Avoid any exercise (stay in clinic, seated)
  - Avoid smoking
- 7. Document the time that the 2hr glucose needs to be done and inform the patient.
- 8. 2-hours after the OGTT, repeat the capillary glucose test (on a cleaned finger). Document time and capillary glucose value and refer the patient to be reviewed by one of the high risk clinic doctors.

#### **E. What if the patient has side-effects?**

##### Dizziness:

- Allow patient to lie down on an available examination couch
- Do an unscheduled capillary glucose test to exclude hypoglycaemia. If HGT  $< 3.5$ mmol/L – give the patient some carbohydrate based snack to eat, e.g. sandwich, and abandon OGTT. If the HGT is  $> 3.5$ mmol/L and the dizziness continues, repeat HGT every 30min.

##### Nausea and Vomiting:

- If nauseous, reassure patient, encourage slow breathing, aim to complete OGTT.
- If the patient vomits – abandon OGTT. Only values done prior to vomiting will be interpreted. Reschedule for meal test / glucose profile.

Signed: D Mason



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# Flow Diagram for OGTT Administration

