

## Questions related to Pathology and Laboratory Medicine for Alternative Gestational Diabetes Mellitus (GDM) Screening during COVID-19

### 1. What are the key messages?

- No changes to screening for overt diabetes early in pregnancy are recommended.
- Until further notice, caregivers are requested to **indicate their patient is pregnant** on the requisition, order HbA1c and a Random (non-fasting) Glucose instead of the 50g-GCT (Trutol) at 24–28 weeks' gestation. The patient will not have to wait 1-hour for the timed collection.
- If a 50g-GCT is ordered, it will be amended at the time of collection to the alternative screen.
- If a fasting glucose, HbA1c, and/or 75g-OGTT are ordered (i.e., given clinical context), it will be carried out as requested by the physician.

### 2. Are there any aliases for the 50g-GCT (Glucose Challenge Test)?

You may have seen the terms “50g-OGTT”, “Trutol”, or “GCT” for this testing.

### 3. Why was this alternative screening approach taken?

- The ability to offer the GCT and the OGTT for all pregnant women may be impacted by decreased laboratory staffing or locations, public health recommendations, or due to patient concern about COVID-19 exposure during this test. The risk of exposure to COVID-19 must be weighed against the benefit of widespread glucose screening and treatment of GDM. The alternative approach offers a reasonable alternative. The SOGC and Diabetes Canada issued a joint statement approving this alternative screening option.
- These measures are temporary and their continuance will be reviewed by the COVID-19 GDM working group every two weeks. Post-pandemic, we will return to the original recommendations of the 2018 Diabetes Canada Clinical Practice Guidelines.

### 4. How does the sensitivity and specificity of this screening alternative differ from the 2018 Guidelines?

- This strategy is aimed at identifying only the highest risk women. This alternative screening option **will miss many women with GDM** as an A1c of greater than or equal to 5.7% has high specificity (96% [95% confidence interval 86, 99%]) **but low**

**sensitivity** (25% [95% confidence interval 10, 49%]). A random plasma glucose of greater than or equal to 11.1 mmol/l was chosen by consensus in order to avoid missing a woman with quite elevated glucose levels but in whom an A1c is unreliable (for example because of a hemoglobinopathy).

- If testing is carried out in the first trimester (e.g. based on clinical factors), the HbA1c may diagnose **more** women with early GDM.
- It is reasonable for health care providers to order an A1c and a fasting glucose (instead of a random glucose) OR a 75-g OGTT for women at increased risk (ex: previous GDM, BMI greater than or equal to 40, and/or PCOS) or if there are ultrasound features concerning for diabetes (e.g.,: fetal overgrowth and/or polyhydramnios) even if previous testing was negative.

**5. I ordered a 50g-GCT and it was not completed. Why?**

All labs and collection centres in NSHA and IWK have been directed to amend 50g-GCT orders to a random (non-fasting) glucose and HbA1c. Repeated requests for 50g-GCT will not change this outcome.

**6. I ordered the HbA1c for my pregnant patient and it was not completed. Why?**

Please indicate on the requisition that the patient is pregnant. Some centres employ utilization rules that auto cancel HbA1c if ordered within 80 days of a previous HbA1c test order. Indication that the patient is pregnant allows staff to override this rule.

**7. Are there additional protective measures for patients coming into collection centres for this testing?**

- The advice from national and provincial public health officials suggest that if individuals must leave home, they wear non-medical masks. Your patients may be advised to bring their own mask. It is not guaranteed that collection sites will have extra masks to provide to patients without COVID-19 symptoms.
- With fewer women waiting for 1-hour in the suspended GCT, it is anticipated that there will be adequate room for physical distancing in the collection centres.
- Individual zones may have additional options for waiting locations.