



# Memorandum

**Date:** August 31, 2016

**To:** Calgary Zone and Rural Physicians

**From:** Dr. Lawrence de Koning, Clinical Biochemist

**Re:** 75 Gram Oral Glucose Tolerance Testing (OGTT) for Pregnant Women

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## Key Messages:

- On September 20, 2016 (0700hrs) the fasting blood glucose threshold for cancelling an oral glucose tolerance test (OGTT) for pregnant women will be lowered to:
  - >5.2 mmol/L for collections at urban hospital and rural laboratories**
  - >5.9 mmol/L for collections at CLS patient service centres (PSCs)**

## Importance/Impact:

- To prevent unnecessary administration of glucose to pregnant women likely to have gestational diabetes mellitus (GDM).

## Background:

- Canadian Diabetes Association guidelines recommend screening of pregnant women between 24-28 weeks gestation for GDM (1-hour 50-gram glucose challenge). For this test, a plasma glucose <7.8 mmol/L is considered normal whereas glucose >11.0 mmol/L is diagnostic of GDM.
- If results are inconclusive (7.8-11.0 mmol/L), patients should undergo a 75 gram oral glucose tolerance test (OGTT). GDM is then diagnosed by EITHER a fasting glucose >5.2 mmol/L, a 1-hour glucose >10.5 mmol/L or a 2-hour glucose >8.9 mmol/L.
- At CLS Patient Service Centres (PSCs), fasting glucose is measured by glucose meters. If the result is high enough to suggest GDM, no glucose drink will be given. Since glucose meters are not as accurate or precise as sophisticated lab analyzers, a higher threshold of 5.9 mmol/L will be used. Off-site confirmatory testing of the specimen by lab analyzers occurs up to 4 hours later.
- For urban hospitals and rural labs, which have lab analyzers on site, the GDM diagnostic threshold of 5.2 mmol/L will be used.
- In the rare circumstances in which an OGTT is incorrectly cancelled (0.04%), the patient will be recalled by CLS and will complete the OGTT in a timely fashion.

## Action Required:

- If the glucose drink should NOT be withheld (e.g. mother at high risk of GDM or early in pregnancy (<20 weeks)), please write 'Give glucose drink regardless of fasting glucose' on the requisition.

## Inquiries and feedback may be directed to:

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