



Laboratory Service Provider Bulletin

RE: Testing for Gestational Diabetes

January 22, 2024

Background/Context

The Working Group for Diagnosis of Gestational Diabetes (GDM) in BC, which included Endocrinologists, Family Physicians, Perinatal Services BC, OBGYN, Lab Physicians and Midwives, have come to consensus for clinicians to adopt the Diabetes Canada 2018 Clinical Practice Guidelines “Preferred” approach for diagnosis of GDM. This is a sequential 2-step method. First, the 50g oral glucose tolerance screen is performed and if the result is between 7.8 – 11 mmol/L, inclusive, to then proceed with the confirmatory 75g oral glucose tolerance test with the thresholds of fasting glucose (≥ 5.3 mmol/L, 1 h pc load glucose ≥ 10.6 mmol/L and 2 h pc load glucose ≥ 9 mmol/L).

The adoption of this approach will reduce rates of GDM from ~14-16% to ~7-8% of all pregnancies in BC. This change will not have adverse impact on perinatal outcomes and is in line with standard practice in the other Canadian provinces.

For clinicians who prefer the “alternative” approach as per the same Diabetes Canada 2018 guidelines, there will continue to be the option for the 1-step, 75g oral glucose tolerance test. However, clinicians will need to self-interpret the results with the corresponding reduced thresholds that will not be reflected in the laboratory-reported reference intervals.

The Provincial Medical Biochemistry Advisory Committee (MBAC) at the Provincial Laboratory Medicine Services (PLMS) endorses this recommendation. The MBAC requests all labs in BC to implement the reporting practices below to align provincially.

Guidelines can be found at <https://guidelines.diabetes.ca/>

Results for flagging and reporting comments

50g Screen for Gestational Diabetes Mellitus

Result (mmol/L)	Flag	Comment
<7.8	No	None
7.8 – <11.1	Yes	75g OGTT for Gestational Diabetes is recommended
≥ 11.1	Yes	Diagnostic for Gestational Diabetes

75g Gestational OGTT- 2h

Collection Time	Sample	Result (mmol/L)	Flag	Comment
Fasting (0h)	Plasma or Serum	<5.3		*Cut-offs are based on Diabetes Canada preferred approach.
1 h		<10.6		
2 h		<9.0		
Fasting (0h)		>=5.3	Yes	Results meet criteria for diagnosis of gestational diabetes mellitus according to the Canadian Diabetes Association preferred criteria.
1 h		>=10.6	Yes	Results meet criteria for diagnosis of gestational diabetes mellitus according to the Canadian Diabetes Association preferred criteria.
2 h		>=9.0	Yes	Results meet criteria for diagnosis of gestational diabetes mellitus according to the Canadian Diabetes Association preferred criteria.
Fasting (0h)	Whole blood	<5.8	N/A	<i>No comment as result not reported.</i>
Fasting (0h)		>5.8	N/A Consult with on call chemist/ pathologist	Manually enter this comment where appropriate: Further testing cancelled as patient meets criteria for Gestational Diabetes on the fasting sample. Glucose drink not provided.

* If all three criteria are met

Implementation

PLMS has requested all BC labs to implement these changes by June 1, 2024.

Due to operational needs at each site, BC labs will be implementing this change between February 1 and June 1, 2024, a transition period of approximately 4 months.

When a lab has implemented these changes, their reports will include this temporary (12-month) comment:

- *“New criteria for test reporting have been implemented as of XXX-XX-2024. Please see separately prepared bulletin from the Provincial Laboratory Medicine Services (PLMS) or Perinatal Services BC for further information.”*

For additional information, please see the Perinatal Services BC website at www.psbchealthhub.ca

Contact

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