Appendix A: Screening Algorithm for Type 2 Diabetes in Adults

Note: an interactive form of this tool is available at website: guidelines.diabetes.ca/ScreeningAndDiagnosis/Screening

Screen every 3 years in individuals > 40 years of age or in individuals at high risk using a risk calculator. Screen earlier and/or more frequently in people with additional risk factors for diabetes or in people at very high risk.

FPG and/or A1C*

FPG < 5.6 mmol/L and/or A1C < 5.5%  
No risk factors

Fasting value: < 6.1 mmol/L and 2-h value: < 7.8 mmol/L  
A1C < 6% or NA

Normal  Rescreen as recommended

Fasting value: < 6.1 mmol/L and 2-h value: 7.8 – 11.0 mmol/L  
A1C 6.0 – 6.4%

At risk  Rescreen more often

Fasting value: 6.1 – 6.9 mmol/L and 2-h value: < 7.8 mmol/L  
IGT

Pre-diabetes‡ Rescreen more often

Fasting value: 6.1 – 6.9 mmol/L and 2-h value: 7.8 – 11.0 mmol/L  
IFG

Fasting value: ≥ 7.0 mmol/L and/or A1C ≥ 6.5%

Diabetes§ Repeat lab test to confirm diagnosis¶

Fasting value: ≥ 7.0 mmol/L

75 g OGTT

If > 1 risk factors consider:

FPG 6.1 – 6.9 mmol/L and/or A1C 6.0 – 6.4%

≥ 7.0 mmol/L

Abbreviations: A1C= glycated hemoglobin; FPG= fasting blood glucose; 75-g OGTT= 75 gram oral glucose tolerance test; 2hPG= 2-hour plasma glucose; IFG= impaired fasting glucose; IGT= impaired glucose tolerance; NA = Not available; PG= plasma glucose.

* If both FPG and A1C are available but conflict, use the test that appears to the furthest to the right of the algorithm.
† The term “prediabetes” refers to IFG and/or IGT, or A1C 6.0-6.4%. These individuals are at risk of developing diabetes, should be monitored regularly, and benefit from cardiovascular disease risk factor modification.
‡ If a single lab test is in the diabetes range, then a confirmatory laboratory test (FPG, A1C or a 2hPG in a 75 g OGTT) must be done on another day (in timely fashion) in all cases of unequivocal hyperglycemia accompanied by acute metabolic decompensation. It is preferable the same test is repeated. If two lab tests are available and both are above cutoff points, then diagnosis is confirmed.