

## MEMORANDUM

**TO:** All Physicians, Nurse Practitioners, Directors of Nursing  
Clinical Instructors/Educators, Laboratory and Nurse Managers  
Diabetes Management Program

**FROM:** Dr. A. Ruth Sellers, Medical Lead  
Ms. Louise Farrar, Technical Lead  
Health PEI Clinical Chemistry Services

**RE:** **Oral Glucose Tolerance Test  
Type 2 Diabetes and Impaired Glucose Tolerance**

**DATE:** November 26, 2012

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Guidelines for laboratory testing to identify type 2 Diabetes and impaired Glucose tolerance are evolving. Available tests include fasting plasma glucose (FPG), HgbA1C or 2 hr oral glucose tolerance test.

**According to the Canadian Diabetes Association Clinical Practice Guidelines (2008) ORAL GLUCOSE TOLERANCE TESTING (OGTT) - 2 hour plasma glucose level is of value in individuals with a FPG of 5.6 – 6.9 mmol/L**

### Requests for OGTT Testing

- Oral glucose tolerance tests should be prebooked at QEH and PCH
- As performance of the test is dependent on the fasting plasma glucose level, the fasting plasma glucose should be available when the test is booked. Point of Care Glucose test results are not acceptable
- Instructions to patients should indicate that the time required for test is variable and may range from approximately 1 – 3 hours
- Oral glucose tolerance testing for patients not meeting the above criteria require consultation with the Chemistry Clinical Leads (see above)

### Testing and Reporting Results

The test begins with fasting plasma glucose

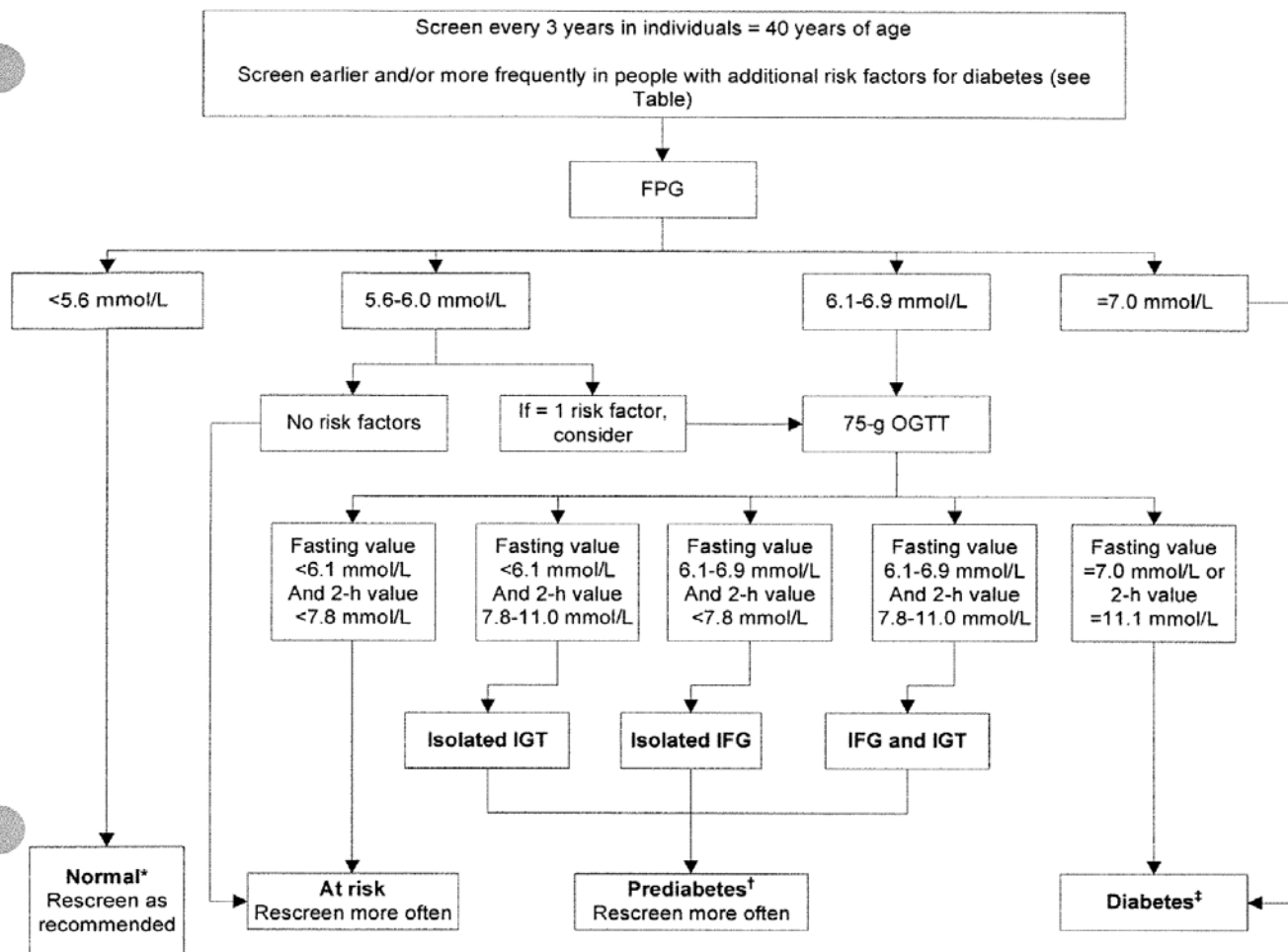
- If the FPG is = or > 7.0 mmol/L the test will not be performed and the results will be reported with the following comment:

***“Fasting Plasma Glucose  $\geq$  7.0 mmol/L is consistent with a diagnosis of diabetes. OGTT is not required as per the Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada.”***





## APPENDIX A: SCREENING FOR TYPE 2 DIABETES IN ADULTS



\*If, despite a normal fasting value, an OGTT is subsequently performed and the 2hPG value is 7.8-11.0 mmol/L, a diagnosis of isolated IGT is made.

†Prediabetes = isolated IFG, isolated IGT, IFG and IGT

‡A confirmatory laboratory glucose test (either an FPG, a casual PG, or a 2Hpg)

2hPG = 2-hour plasma glucose

IGT = impaired glucose tolerance

FPG = fasting plasma glucose

OGTT = oral glucose tolerance test

IFG = impaired fasting glucose

PG = plasma glucose

## APPENDIX B: RISK FACTORS FOR TYPE 2 DIABETES

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|---|---|
| <ul style="list-style-type: none"> <li>• Age ≥40 years</li> <li>• First-degree relative with type 2 diabetes</li> <li>• Member of high-risk population (e.g. people of Aboriginal, Hispanic, South Asian, Asian or African descent)</li> <li>• History of IGT or IFG*</li> <li>• Presence of complications associated with diabetes</li> <li>• Vascular disease (coronary, cerebrovascular or peripheral)*</li> <li>• History of gestational diabetes mellitus</li> </ul> | <ul style="list-style-type: none"> <li>• History of delivery of a macrosomic infant</li> <li>• Hypertension*</li> <li>• Dyslipidemia*</li> <li>• Overweight*</li> <li>• Abdominal obesity*</li> <li>• Polycystic ovary syndrome*</li> <li>• Acanthosis nigricans*</li> <li>• Schizophrenia</li> <li>• Other (see Appendix 1)</li> </ul> |
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Adapted from:

Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada  
OGTT Memo November 2012