


best tests

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DIABETES
Identifying the barriers
Detection
Diagnosing
Monitoring
SMBG Your data



bpac^{nz}
better medicine

Identifying the barriers to detecting people with diabetes

There has been a marked improvement in diabetes detection in New Zealand over the last few years, but there remains a small section of people who prove difficult to reach. While many of the barriers faced by GPs are common to most practices, there will be other barriers unique to each practice. Methods for identifying and overcoming barriers can not be prescriptive, ideas and solutions need to be as individual as the issues each practice faces.

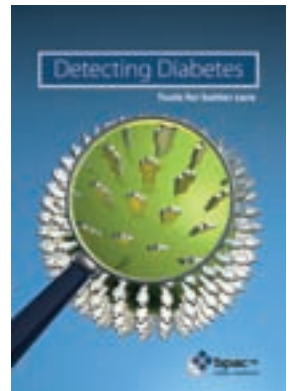
The recent bpac resource “Detecting Diabetes: Tools for better care” provided a range of tools for identifying and overcoming barriers that will be applicable to many practices. The key questions asked were:

- **Is diabetes testing available:** Does the practice have the knowledge and tools to provide testing?
- **Is diabetes testing appropriate:** Are the right people getting the right tests at the right time?

- **Is diabetes testing accessible:** Are the people that need testing able to access the service?
- **Is diabetes testing acceptable:** Is testing culturally acceptable to your practice population?

A number of tools are available from www.bpac.org.nz (key word: diabetestools) to help address each of these questions:

- Patient information “Why test me for diabetes”
- Diabetes Action Plan
- Testing guide
- Practice poster
- How to set up PMS system alert
- Patient recall letter
- Peer review group activity



Detecting people with diabetes...

Who to test...

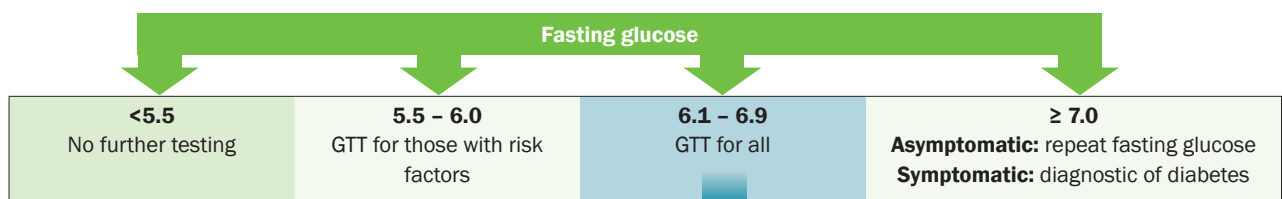
1. People with symptoms of diabetes
2. People at high risk of diabetes⁴
3. People having CVD risk assessment

There is currently no recommendation for population wide screening in New Zealand. This is consistent with international recommendations.

What test to use...

Fasting plasma glucose is recommended as the best initial test for the diagnosis of diabetes.

Note: non-fasting glucose has a role in opportunistic testing. A non-fasting glucose of <5.5 doesn't require further testing while a result of ≥ 11.1 in symptomatic people is diagnostic of diabetes.



Interpreting results

Glucose tolerance test			
Fasting		2 hour	
6.1–6.9	and	< 7.0	Impaired fasting glycaemia
< 7.0	and	7.8 – 11	Impaired glucose tolerance
≥ 7.0	and/or	≥ 11.1	Diabetes mellitus

Diagnosing diabetes...

The following are diagnostic of diabetes

- In people with symptoms typical of diabetes, a single fasting plasma glucose level of ≥ 7.0 mmol/L or a random glucose ≥ 11.1 mmol/L.
- In people without symptoms of diabetes, a fasting plasma glucose result ≥ 7 mmol/L on two different days or a random result of ≥ 11.1 mmol/L on two different days.
- Following a glucose tolerance test a fasting glucose ≥ 7 mmol/L and/or a 2 hour glucose of ≥ 11.1 mmol/L.

Role of other tests for diagnosis...

- Non fasting blood glucose: limited role in opportunistic testing.
- Urine glucose: non-sensitive and non-specific, not recommended.
- HbA_{1c}: best test for monitoring, currently not recommended for diagnosis.

Laboratory monitoring of people with diabetes...

What to test....

HbA_{1c}

HbA_{1c} is the best test of glycaemic control in diabetes. Test six monthly in stable diabetics, and three monthly following changes in treatment. The goal is to achieve an HbA_{1c} as low as possible, preferably less than 7.0%, without causing unacceptable hypoglycaemia.

Self monitoring blood glucose (SMBG)²

- For people with non-insulin treated type 2 diabetes, self-monitoring of blood glucose (SMBG) appears to have little or no effect on glycaemic control.
- SMBG is associated with higher costs and lower quality of life.
- HbA_{1c} remains the most useful tool for assessing glycaemic control in people with non-insulin treated type 2 diabetes.

Lipids

Fasting lipid levels are measured three monthly until stable and then 6 – 12 monthly thereafter.

Diabetic renal disease

Urinary albumin:creatinine ratio (ACR) and serum creatinine with estimated glomerular filtration rate (eGFR) should be performed on everyone with diabetes at diagnosis and repeated at least annually – more frequently if there is proteinuria, microalbuminuria or reduced eGFR.

1. For full list see Tool B “Detecting Diabetes” available from www.bpac.org.nz
2. For further information see BPJ issue 14, available from www.bpac.org.nz