

Diabetes Mellitus (DM) is one of the most prevalent medical conditions in Australia, with an estimated 7.5% of the population suffering from the disease. Up to half of these cases are unrecognised, with many people unaware that they have diabetes. With this in mind, QML Pathology has created a register of diabetic patients to assist doctors in providing an efficient and timely service.

The following operations can be performed:

Extraction by doctor code of all diabetic patients

Initially, the QML Pathology computer searches patient results for the previous two years. In subsequent monthly reports, only the previous month's patient results are searched. This monthly report, titled 'Diabetes Register', invites the doctor to peruse the list and exclude all inappropriately listed patients (e.g. deceased or non-diabetic). Alternatively, the doctor can indicate the preferred review interval(s) for each diabetic patient.

If the above form is not returned, QML Pathology will assume that all patients are to be included in the register and recalled according to the Best Practice Guidelines.

Abnormalities detected in Month/Year

The second component of the monthly report is titled 'Abnormalities detected in month/year' and appears in the Diabetes Follow-Up Report. This report will list each of the patients who have been reviewed and found to

have unacceptable HbA1c, urinary albumin/creatinine ratio or lipid results in the last month.

Patients for Recall

The third component of the monthly report is titled 'Patients for Recall' in the Diabetes Follow-Up Report. This report will list all diabetic patients who are now due for review, and will include their previous test results.

For Future Review

The final component of the monthly report is titled 'For Future Review'. This report will list those patients who have a high risk of DM, but do not yet meet the World Health Organisation (WHO) criteria. This is essentially those with fasting glucose values of 6.1 - 6.9 mmol/L or random values of 7.8 - 11.0 mmol/L.

It may be appropriate to review their general health and consider requesting a glucose tolerance test.

How does the QML Pathology system recognise Diabetes Mellitus?

WHO criteria for diagnosis of DM indicate that any patient with symptoms of polyuria, polydipsia AND who has a single fasting glucose of 7.0 mmol/L or higher, or a single random glucose value of 11.1 mmol/L or higher, has DM. However, the laboratory is not in a position to determine the presence of symptoms, and therefore lists patients who may have only a single abnormal serum glucose value. In some cases, this will reflect

the effects of an illness or a post-absorptive peak. If uncertain, it would be appropriate to repeat a fasting or random serum glucose to determine if the abnormality persists.

In Australia, Medicare Australia (previously the Health Insurance Commission) has determined that HbA1c may be performed only on known diabetics. Therefore, any patient who has had this test performed, and whose results exceeded 6.9%, is included in the Diabetes Register. The system is designed to detect long-standing diabetic patients who are well controlled (such that the serum glucose values are usually 'normal').

If a non-diabetic patient appears on your Diabetic Register list, please contact your local QML Pathology branch.

Salient Points

- A well-controlled diabetic patient who has not had his/her HbA1c tested or whose HbA1c was normal in the last two years, will not be flagged.
- If your patient has seen another doctor since s/he last saw you, s/he may be listed with this doctor.
- If your patient is usually referred to QML Pathology but has an occasional test performed by another laboratory, the computer may flag them as overdue. We do not yet have other private or public system laboratories online.
- If your patient has been referred for testing but no results return and s/he is listed as

	Adult Type 2 Diabetes	Adult Type 1 Diabetes	Adult Aboriginal & Torres Strait Islander	Children	Adolescents
HbA1c	3-6 months if insulin treated, 6-12 months if no insulin	3-6 months	3 monthly	3 monthly	3 monthly
Albuminuria	At diagnosis, then 12 monthly if normal, 3-6 monthly if proteinuria	5 years post-diagnosis, then 12 monthly	At diagnosis then 12 monthly if normal, 3-6 monthly if proteinuria	5 years post-diagnosis, or at onset of puberty, then 12 monthly	2 years post-diagnosis, or at onset of puberty, then 12 monthly
Lipid Studies	1-2 years if normal, 3-6 months if abnormal (fasting)	1-2 years if normal, 3-6 months if abnormal or treated abnormal (fasting)	1-2 years if normal, 3-6 months if abnormal or treated abnormal (fasting)	2 years	2 years

Table 1

Diabetes Register

overdue, it is likely that s/he did not present for testing. In a survey performed with a large practice in Brisbane, the surgery sent a copy of each request form directly to the laboratory at the time that the request form was given to the patient. The survey showed that 20% of patients did not present for the tests, as referred.

Delivery Method(s)

Diabetes Register information is available for doctors in either hard copy or electronic format. These reports can now be downloaded by users of most practice management software, including Medical Director, Medical Spectrum and GP Genie. The Diabetes Register program runs on the middle Sunday of each month, so you should receive your report in the mail or in your download during the next week.

Assess HbA1c as part of diabetes mellitus management to evaluate longer term glycaemic control.

The Electronic Report

The electronic Diabetes Register report will be placed in a doctors download area in the same manner that pathology results are delivered. When doctors pick up their results, the Diabetes Register reports will appear in the hold file as regular patients. The names of the patients are as tabulated below.

These 'patient names' will have to be created in the practice management software to ensure that the reports can be viewed correctly. This once-off task will occur when the report is initially viewed.

Please note:

- The Diabetes Register reports will always appear as abnormal results to ensure they stand out
- If changes to the patient recall intervals are required, print the 'Diabetes Register' report and circle the changes required. All changes should be signed by the doctor. The print out should then be returned to your local laboratory via your QML Pathology courier or faxed to the laboratory directly
- Some larger reports may take a considerable amount of time to load in the practice management software.

A doctor can register for the electronic version of the Diabetes Register by contacting their QML Pathology Medical Liaison Officer, or the EDI Support Team on 1300 738 448.

Diabetes Mellitus - Best Practice Guidelines:

Best Practice Guidelines have been developed by expert groups, accepted and endorsed by the RACGP. These guidelines include standardised monitoring intervals

for glycated haemoglobin (HbA1c), urinary albumin and serum lipids.

The guidelines are specific for each major diabetic group - Adult Type 1, Adult Type 2, Children, Adolescent and Adult Aboriginal and Torres Strait Islander diabetics. The latter are separated from Adult Type 2 because their typically more aggressive disease warrants closer monitoring. It should be noted that these guidelines are not immutable and will be regularly reviewed and revised.

The Guidelines outlined in Table 1 are based on 'Management of Diabetes Mellitus in Adults - Standard Care Pathway, 2000' and the 'Diabetes Patient Record Form'.

Practices are now eligible for a Practice Incentive Program 'sign on' payment if a patient register and recall/reminder system is used for all patients with diabetes.

The QML Pathology Diabetes Register complies with this Medicare Australia requirement. Please contact the Liaison Department on (07) 3121 4943 for information regarding QML Pathology's Diabetes Register service.

Report Title	Patient Name
Diabetes Register	Diabetes, Register
Diabetes Follow-up	Diabetes, Follow-up
Diabetes 'Future Review'	Diabetes, Future review

Test	Result
Last HbA1c	> 6.9%
Last Urine Albumin/Creatinine	> 3.3 g/mol
Last Cholesterol	> 4.9 mmol/L
Last HDL Cholesterol	< 1.1 mmol/L
Last LDL Cholesterol	> 2.9 mmol/L
Last Triglycerides	> 1.9 mmol/L
Last Urine Albumin	> 12 months ago

Table 2: The following conditions trigger inclusion of a patient on the follow-up list after 3 months.