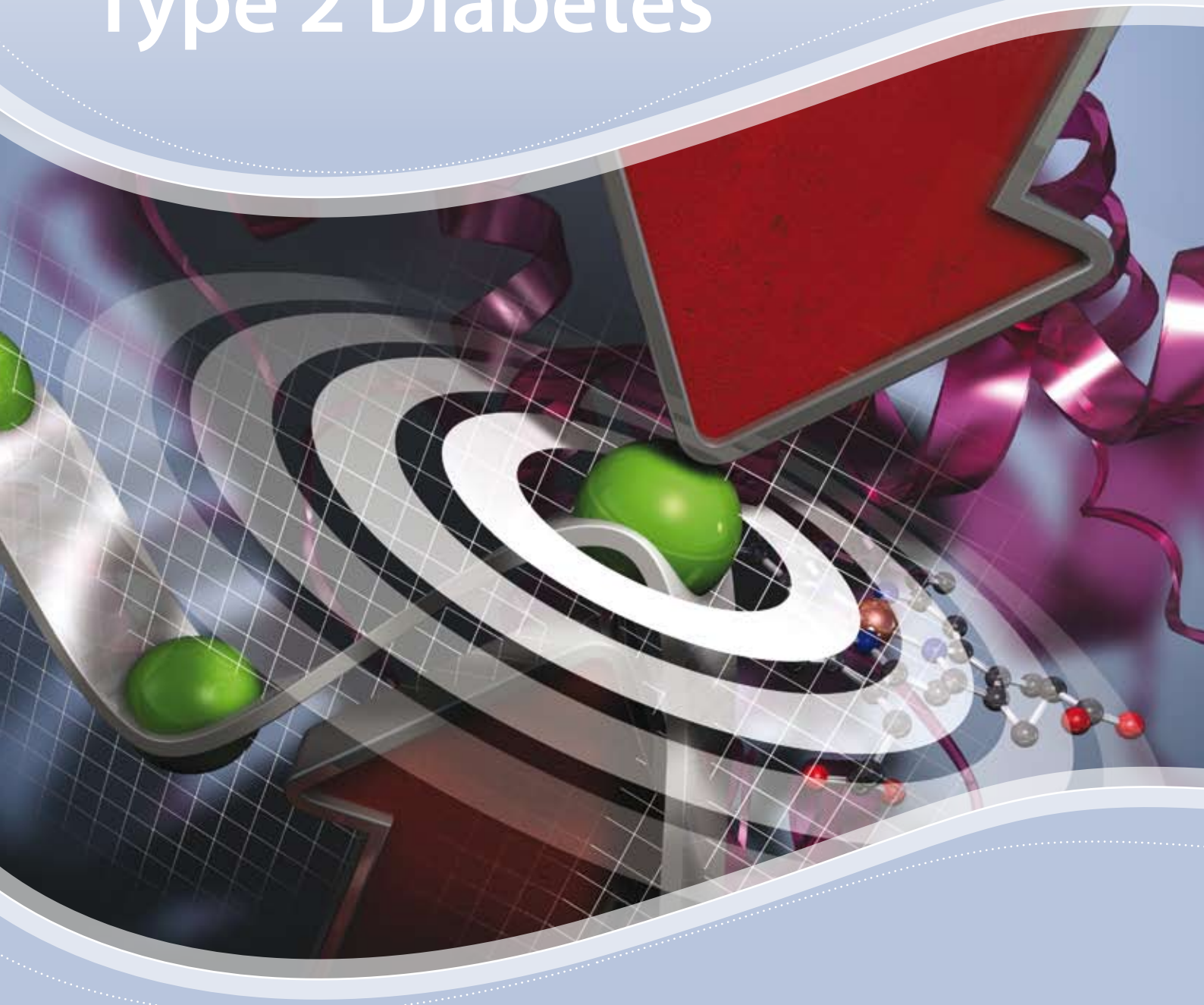


CLINICAL AUDIT

Detecting Type 2 Diabetes



Valid to November 2017





Background

Based on both local and international recommendations, HbA_{1c} is now the recommended first-line test for the diagnosis of, and routine testing for, type 2 diabetes. This is a change in practice for most clinicians, who previously used glucose tests. There are only a limited number of situations when HbA_{1c} is not appropriate, and fasting glucose or oral glucose tolerance testing should be used instead.

Recommendations

This audit addresses the use of laboratory testing in the diagnosis of type 2 diabetes. It will allow practitioners to assess their use of testing and to determine the appropriateness of tests for individual patients.

HbA_{1c} is the recommended test for diagnosing diabetes in most people. Fasting glucose testing is indicated where the patient has a specific condition that increases the likelihood of HbA_{1c} results being inaccurate.

HbA_{1c} may be falsely high in people:

- With reduced red blood cell production
 - Iron, B12 deficiency
 - Renal failure
 - Bone marrow suppression (e.g. alcoholism)
- With reduced red blood cell destruction
 - Splenectomy

HbA_{1c} may be falsely low in people:


- With increased red blood cell production
 - Iron or erythropoietin treatment
 - Recent transfusion (previous three months)
- With increased red blood cell destruction
 - Haemolytic anaemias, haemoglobinopathies, e.g. sickle cell anaemia, methaemoglobinemia
 - Thalassaemia
 - Splenomegaly
 - Chronic liver disease

Audit plan

Indications

Males aged over 45 years and females aged over 55 years should be tested for diabetes as part of a joint diabetes/ cardiovascular risk assessment, at least every three to five years, depending on risk. An HbA_{1c} test should be requested for most people, and only those with a specific contraindication (to an HbA_{1c} test) should have a fasting glucose test, without first being assessed with HbA_{1c}.

N.B. Testing for diabetes at a younger age is recommended for people with risk factors, e.g. Maori or Pacific ethnicity, obesity; however, for the purposes of this audit, only the above group should be included in the audit population.

 For full recommendations on who should be screened, see "The new role of HbA_{1c} in diagnosing type 2 diabetes", *BJP* 42 (Feb, 2012).

Criteria for a positive outcome

- a) The patient was tested for type 2 diabetes using HbA_{1c} (Tested with HbA_{1c} = Yes)
- b) The patient was tested for type 2 diabetes using fasting glucose (Tested with HbA_{1c} = No; Tested with fasting glucose = Yes) and:

The use of HbA_{1c} was contraindicated for that patient (Tested with fasting glucose = Yes; Contraindication to HbA_{1c} = Yes + Identified contraindication)

Recommended audit standards

Of the patients tested for type 2 diabetes in the last 12 months, 90% will have been tested with HbA_{1c} or will have been tested with fasting glucose and have an appropriated contraindication to HbA_{1c}.

Data

Eligible people

Males aged over 45 years or females aged over 55 years enrolled with the practice who have had a diabetes/ cardiovascular assessment in the previous 12 months.

Identifying patients

You will need to have a system in place that allows you to identify eligible patients. Many practices will be able to identify patients by running a 'query' through their practice

Data sheet – cycle 1

Audit: Detecting Type 2 Diabetes

	Tested With HbA _{1c} ?	Tested with fasting glucose?	If tested with fasting glucose, was there a contraindication for HbA _{1c} ?
Patient	YES/NO	YES/NO	Contraindication
1			
2			
3			
4			
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11			
12			
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22			
23			
24			
25			
26			
27			
28			
29			
30			
Total Yes			
% Yes			

Please retain this sheet for your records to provide evidence of participation in this audit:

Data sheet – cycle 2

Audit: Detecting Type 2 Diabetes

	Tested With HbA _{1c} ?	Tested with fasting glucose?	If tested with fasting glucose, was there a contraindication for HbA _{1c} ?
Patient	YES/NO	YES/NO	Contraindication
1			
2			
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28			
29			
30			
Total Yes			
% Yes			

Please retain this sheet for your records to provide evidence of participation in this audit:

RNZCGP Summary Sheet – CQI Activity

DOCTORS NAME

The activity was designed by (please tick appropriate box):

- RNZCGP
- Organisation e.g. IPA/PHO/BPAC (name of organisation)
- Individual (self)

bpac^{nz}

TOPIC

Detecting Type 2 Diabetes

Describe why you chose this topic (relevance, needs assessment etc):

FIRST CYCLE

1. DATA

Information collected

Date of data collection:

Please attach:

- A summary of data collected or
- If this is an organisation activity, attach a certificate of participation.

2. CHECK

Describe any areas targeted for improvement as a result of the data collected.

3. ACTION

Describe how these improvements will be implemented.

4. MONITOR

Describe how well the change process is working. When will you undertake a second cycle?

Please retain this sheet for your records to provide evidence of participation in this audit:

SECOND CYCLE

1. DATA	Information collected
Date of data collection:	
Please attach: <ul style="list-style-type: none">▪ A summary of data collected or▪ If this is an organisation activity, attach a certificate of participation.	
2. CHECK	Describe any areas targeted for improvement as a result of the data collected.
3. ACTION	Describe how these improvements will be implemented.
4. MONITOR	Describe how well the change process is working. Will you undertake another cycle?
COMMENTS	

Please retain this sheet for your records to provide evidence of participation in this audit:

management software for patients who have had a CVD risk assessment in the previous twelve months. Depending on recording practices, the tests that were requested at that time can be then be found either within the query or from the patient notes.

Sample size

The number of eligible patients will vary according to your practice demographic. If you identify a large number of patients, take a random sample of 30 patients whose notes you will audit (or the first 30 results returned).

Data analysis

Use the data sheet to record your data. Calculate your percentages by taking the number of people who are a “positive result” as per the above criteria, divided by the total number of people audited (i.e. the 30 patients whose test choice was reviewed), multiplied by 100.

Identifying opportunities for CQI

Taking action

The first step to improving medical practice is to identify the criteria where gaps exist between expected and actual performance and then to decide how to change practice.

Once a set of priorities for change have been decided on, an action plan should be developed to implement any changes.

The plan should assign responsibility for any actions to the doctor and should include realistic timelines.

The plan should also include steps to identify any patients on citalopram not directly included in the audit but who may still benefit from review.

It may be useful to consider the following points when developing a plan for action:

Problem solving process

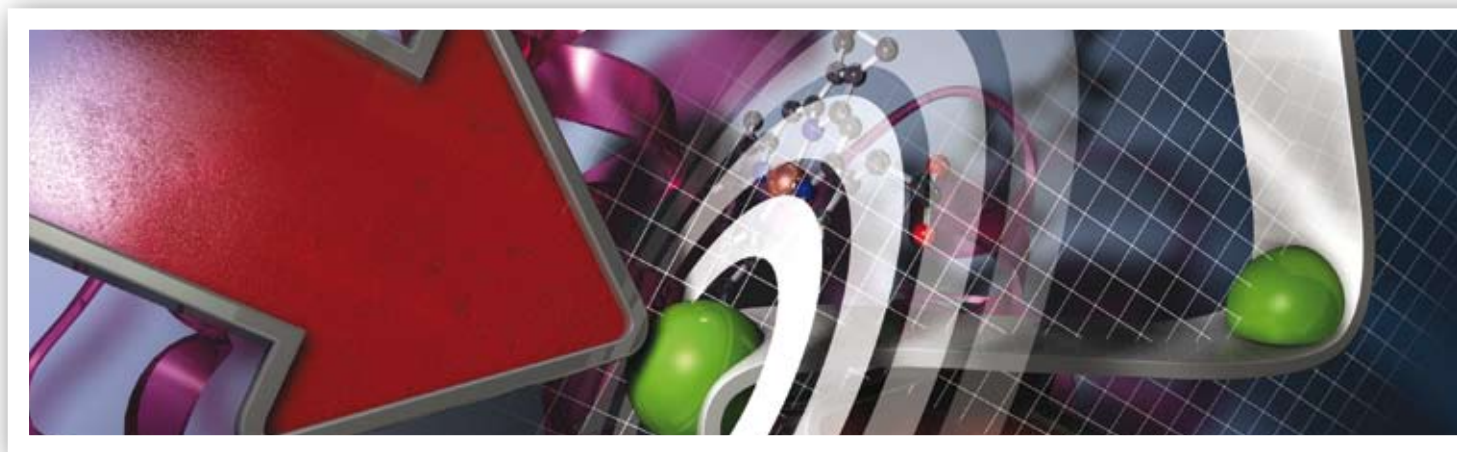
- What is the problem or underlying problem(s)?
- Change it to an aim
- What are the solutions or options?
- What are the barriers?
- How can you overcome them?

Overcoming barriers

- Identifying barriers can provide a basis for change
- What is achievable – find out what the external pressures on the practice are and discuss ways of dealing with them in the practice setting
- Identify the barriers
- Develop a priority list
- Choose one or two achievable goals

Effective interventions

- No single strategy or intervention is more effective than another, and sometimes a variety of methods are needed to bring about lasting change
- Interventions should be directed at existing barriers or problems, knowledge, skills and attitudes, as well as performance and behaviour



Review

Monitoring change and progress

It is important to review the action plan against the timeline at regular intervals. It may be helpful to consider the following questions:

- Is the process working?
- Are the goals for improvement being achieved?
- Are the goals still appropriate?
- Do you need to develop new tools to achieve the goals you have set?

Following the completion of the first cycle, it is recommended that the doctor completes the first part of the CQI activity summary sheet.

Undertaking a second cycle

In addition to regular reviews of progress, a second audit cycle should be completed in order to quantify progress on closing the gaps in performance.

It is recommended that the second cycle be completed within 12 months of completing the first cycle. The second cycle should begin at the data collection stage. Following

the completion of the second cycle it is recommended that doctors complete the remainder of the CQI activity summary sheet.

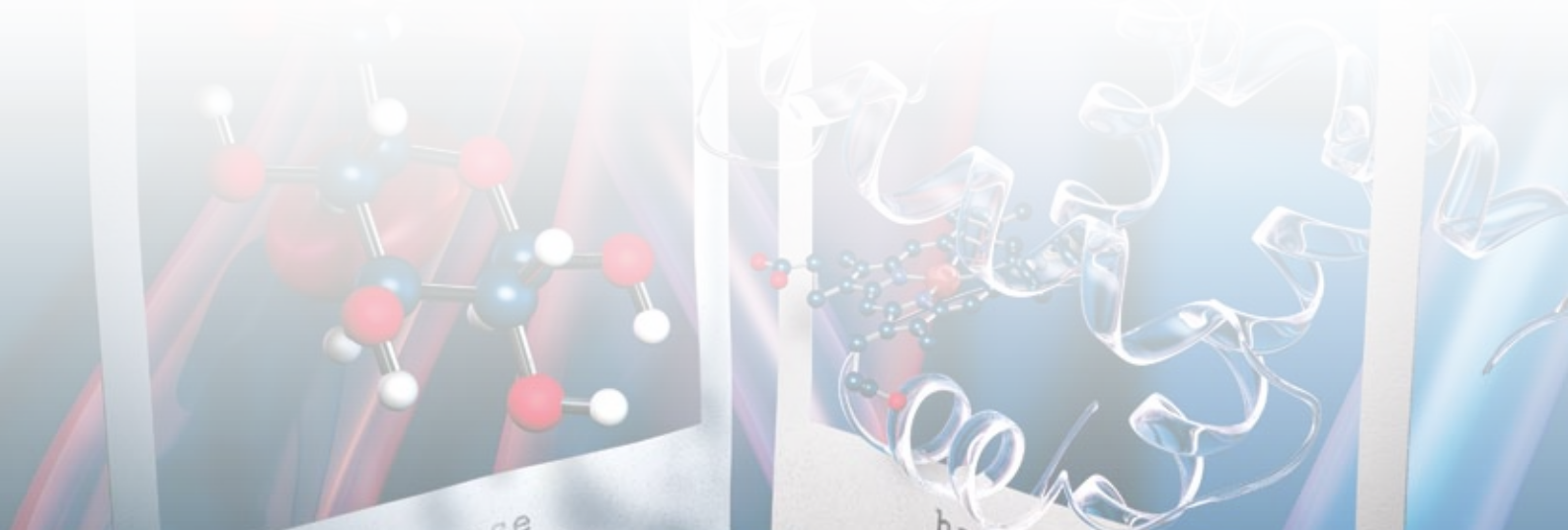
Claiming MOPS credits

This audit has been endorsed by the RNZCGP as a CQI Activity for allocation of MOPS credits. General practitioners taking part in this audit can claim credits in accordance with the current MOPS programme. This status will remain in place until **November 2017**.

To claim points for MOPS or CPD online please enter your credits on your web records. Go to the RNZCGP website www.rnzcgp.org.nz and claim your points on 'MOPS online' for vocationally registered doctors, or 'CPD online' for general registrants. Alternatively MOPS participants can indicate completion of the audit on the annual credit summary sheet which is available from the College on request.

As the RNZCGP frequently audit claims you should retain the following documentation, in order to provide adequate evidence of participation in this audit:

1. A summary of the data collected
2. A Continuous Quality Improvement (CQI) Activity summary sheet



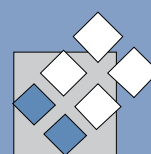
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