A Quality Improvement Activity

Targeting optimal HbA1c level in type 2 diabetes using appropriate blood-glucose lowering medicine

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Intended users: This Quality Improvement Activity is suitable for use in primary care by prescribers of medicines for the treatment of type 2 diabetes. This resource may also be used to aid annual professional development recertification activities.

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Endorsement: This activity has been endorsed by The Royal New Zealand College of General Practitioners (RNZCGP) and has been approved for up to 10 CME credits for Continuing Professional Development (CPD) purposes.

Activity aim

The overall aim of this activity is to support initiation or intensification of treatment for patients who are not currently at their target HbA1c level.

Why should you do this QIA?

- Earn CME/CPD points.
- Evaluate and improve glycaemic management in your patients.
- Ensure you are following best practice and guidance for T2D management.
- Provide an equitable healthcare service and equitable medicine access for your patients.

Learning outcomes

At the end of this activity, you will be able to:

- Review glycaemic management in patients who may benefit from treatment initiation or intensification.
- Overcome therapeutic inertia barriers hindering treatment initiation or intensification.
- Identify key features of new diabetes treatments in New Zealand.
- Utilise approaches for initiating or intensifying treatment according to best practice and guidance.
- Implement a plan for regular review of glycaemic control in your patients with T2D.

Core competencies that will be met by this QIA

Clinical expertise – develop a management plan in consultation with your patient, using evidence-based medicine and best practice.

Professionalism – develop professional networks with peers for mutual learning and support.

Scholarship – reflect on your own practice, identify your own learning needs, seek ways to meet these needs and evaluate outcomes and undertake activities to ensure continuous quality improvement.

Management – use information management skills to manage patient data efficiently and ethically.

Tools to help with this activity

EPiC dashboard
The He Ako Hiringa EPiC dashboard can be used to identify patient groups for the review and for additional activities that may be useful for your practice; for example, identifying Māori and Pacific peoples who may be eligible for newly funded glucose-lowering medicines. Sign up at akohiringa.co.nz

He Ako Hiringa
Find all you need to know on the new type 2 diabetes treatment options available.

Your Practice Management System
You can use your PMS to find patients who may benefit from treatment initiation or intensification. Don't worry if you don't know how to do this, we will help you out!

How long will this activity take?

The programme has been designed to take approximately 8–12 weeks to complete. This includes patient recall from your practice, patient consult and re-evaluation of your targets.

Targets – what are we measuring?

Good glycaemic control has a clear benefit on micro-vascular outcomes (nephropathy, retinopathy and neuropathy) and if started early enough, on long-term macrovascular outcomes of coronary artery disease, stroke and peripheral vascular disease.

If you haven't already, you may like to upskill in the new T2D treatments available in New Zealand. Some suggested sites are listed below.

- **He Ako Hiringa –** akohiringa.co.nz for up-to-date resources on equity in care and where the new diabetes medicines fit into practice.
- **EPiC Diabetes –** https://epic.akohiringa.co.nz for an overview of your diabetes prescribing.
- **The New Zealand Society for the Study of Diabetes (NZSSD) –** t2dm.nzssd.org.nz for the most up-to-date guidance and treatment algorithms.

HbA1c targets

The target HbA1c level in most patients with diabetes is < 53mmol/mol.

- A lower target HbA1c of < 48mmol/mol is appropriate when hypoglycaemia risk is low (ie, the patient is not on insulin and/or sulfonylureas) and in patients who are:
  - young OR
  - considering a pregnancy or currently pregnant OR
  - have diabetic microvascular complications (particularly retinopathy and nephropathy).
- A higher HbA1c target (eg, 54–70mmol/mol) may be more appropriate when the risks of hypoglycaemia likely outweigh the benefits of tight glycaemic control, such as:
  - when life expectancy is limited by non-diabetes related comorbidities
  - in patients with previous episodes of severe hypoglycaemia
  - in patients with significant hypoglycaemic unawareness
  - in the frail elderly and/or patients with cognitive impairment
  - in the functionally dependent.

Standard for the QIA

That 90 per cent of patients with type 2 diabetes are at or below their target HbA1c level.

> A QIA or audit measures practice against standards (a "standard" is the level of performance achieved and expressed as a percentage) and helps us answer the question "are we doing the right thing in the right way?" It is about understanding practice so we can change it if needed, to improve the quality of care for patients.

Which patients should be included in the QIA?

The patients included in your QIA must have:

- a recorded diagnosis of T2D AND
- a recent HbA1c level recorded (recent is defined as within six months if HbA1c target is being met, and every three months if target is not being met or if treatment has changed.)

We recommend selecting patients who have been diagnosed with T2D for at least one year, as recently diagnosed patients may be undergoing initial titration and optimisation of treatment.

You can evaluate all patients in your practice, or you may like to select a group of patients; for example, young people or people with diabetes and a recent hospital visit. This will depend on your practice.

If you are not sure which patients to choose then we recommend you log into https://epic.akohiringa.co.nz to look at your data. The EPiC Diabetes dashboard shows a breakdown of your patients and your practice's patients who have diabetes. By filtering and examining the data here, you may find a group of patients who have variation in prescribing and warrant further investigation via this QIA.

Getting into it – how to undertake the Quality Improvement Activity!

1. Decide on your aim and learning objectives

Here are some options you might like to choose from (you can pick more than one) or you may like to come up with your own.

- Learn about the new type 2 diabetes medicines available in New Zealand.
- Implement a diabetes-specific patient recall system to improve the treatment of your diabetes patients.
- Improve adherence to the best practice guidance for the treatment of diabetes.
- Enhance treatment outcomes for patients with poor glycaemic control.
- Enhance peer group discussions around optimal diabetes treatments.

2. Collect your data

Identify a sample of patients with type 2 diabetes and record if they have a recent (within the last six months) HbA1c result*.

Next, record the percentage of your sample who are at or below their target HbA1c level (we are aiming to meet or exceed the QIA standard of 90 per cent).

We will soon be providing step-by-step instructions on how to create a dataset in Medtech32, Medtech Evolution and Indici. These will be available on akohiringa.co.nz.

**In this activity we are assuming practices are regularly reviewing patient records to ensure up-to-date HbA1c testing –however, if you find this is not the case, you might like to attach a follow-up flag for patients who have not had an HbA1c in the last six months.*

3. Actions

Once you have your data set, you need to decide on some actions to achieve your learning objectives identified above. Here is what we recommend:

1. Place a "flag" and a note on the patients' records recommending a diabetes medicine review at their next visit in those who are not meeting their target HbA1c level.
2. You may like to prioritise and recall those patients whose HbA1c level is considered very high (> 70mmol/mol).
3. At the next visit undertake a diabetes medicines review to determine if a change or intensification of diabetes medicine is needed – many of these patients may be eligible for the newly funded medicines.
4. As a practice or peer group, discuss and reflect on whole-of-practice diabetes care and identify opportunities to improve policy and procedures for future care. Discuss what behaviours need to change (and why they are occurring) to achieve best practice. Choose quality improvement interventions that address the cause of the behaviours.
5. Decide if additional education or a clinical update is needed; for example, a visit from a PHO clinical pharmacist.
6. Set a date in 12 weeks' time to evaluate your QIA (see below for further details).

4. Monitoring and evaluation

Decide how you will evaluate and monitor your progress in this activity. We recommend following up those patients whom you identified and placed a flag in their record.

1. How many of them have now had a review of their medicines?
2. How many have had a treatment initiation or intensification of their diabetes medicine after their review?
3. Has there been a reduction in the percentage of patients with an HbA1c level greater than their optimal target?
4. Were there any groups of patients who had a visit but not a medicine review – why did this happen?
5. What will you do with the patients who have not had a medicine review?
6. Have you or any team members undertaken recent CME in diabetes care?
7. Has the practice implemented any changes to diabetes care because of this QIA?

5. Recording and claiming your CPD points

Use the editable form below to record your QIA activities.

Recording your QIA and claiming CME/CPD points

Complete this section and keep it as a record of your learning for CME purposes.

Name

Professional Registration Number

Date commenced

Date concluded

QIA title

Give your QIA a title

Eg, HbA1c values and appropriateness of blood-glucose lowering treatment in people with type 2 diabetes

Learning aims and objectives

Why did you complete this QIA (overall aim and QIA standard)?

Eg, I wanted to ensure my diabetes care was equitable; or, as a practice we wanted to determine if we were following the new diabetes guidance and find patients who may benefit from newly funded medicines.

What learning objectives did you choose?

(Copy and paste from the following list and/or add your own)

- *Learn about the newly funded type 2 diabetes medicines available in New Zealand*
- *Implement a diabetes-specific patient recall system to improve management of my patients with T2D*
- *Improve adherence to best practice guidance for the management of diabetes*
- *Enhance treatment outcomes for patients with poor glycaemic control*
- *Enhance peer group discussions around optimal diabetes management*
- *Other* _____

Collect your data

What data queries did you do in this QIA (collecting data) and why?

Eg, I was trying to determine which patients may benefit from the newly subsidised diabetes treatments. 1) I ran a query in Medtech to find patients with a type 2 diabetes diagnosis and a recent HbA1c level > 53mmol/mol and who were Māori or Pacific peoples.

What were the results – did you meet the standard?

Eg, I analysed our records and found we had 76 patients who identified as Māori or Pacific peoples with diabetes – we had eight patients who were not meeting their HbA1c target, so we did not meet the standard.

Actions

Change – what changes did you implement to improve patient care?

Eg, 1) I undertook some education about the newly funded type 2 diabetes treatments; 2) I placed a flag and noted the eight patients who were not meeting their HbA1C target – as the flagged patients have come in for a consultation, I have undertaken a diabetes medicine review and discussed the possibility of intensifying treatment.

Did you discuss the QIA and/or results with anyone?

Eg, yes, some of the patients I had flagged for review were not patients I usually have consultations with – I alerted my practice colleagues and discussed the QIA goals and the new treatment guidance at our monthly team meeting.

Evaluation and monitoring

How do you know your audit was successful (or not)?

Eg, I undertook another record review of the eight patients who had flags put on their records – five had undertaken a medicines review and were started on the newly funded medicine, empagliflozin. One patient had recently had a medicine modification and was undertaking regular monitoring, and two patients I had not seen.

Reflect – what will you do differently in future to improve your practice?

Eg, as a practice team we are developing an action plan to determine how, when and by whom, regular diabetes medicines reviews are occurring. We have also appointed a diabetes champion in the practice to ensure the team are keeping up to date with new guidance and best practice. I also want to learn more about healthcare inequities and unconscious bias, to improve treatment and care for all my patients.

Reflect – what will you do to improve your future QIA methods?

Eg, it would have been beneficial to have had a team discussion about the QIA before it began so that everyone in the practice knew what was happening.