

# Standard 8

*People with diabetes who do not achieve their agreed targets should have access to appropriate expert help.*

## Key practice points

- People with diabetes are at significantly greater risk for cardiovascular disease than the rest of the population.
- This risk is even greater in Māori, Pacific, Asian and South Asian people.
- Individualised glycaemic and cardiovascular risk targets should be agreed and documented using shared decision-making.
- People with diabetes who do not meet their agreed targets should be reviewed and treatment/support should be modified as required.
- If necessary, people not meeting their targets should have access to specialist services.

Read this standard in conjunction with the equality and diversity section in the Introduction to the Toolkit.

## What the quality statement means for each audience

**Service providers** ensure procedures are in place to enable people with diabetes to agree and document glycaemic and cardiovascular risk targets with their health care professional. If targets are not achieved within a realistic timeframe, appropriate, expert help is provided.

**Health care professionals** ensure they agree and document glycaemic and cardiovascular risk targets with people with diabetes and provide ongoing review. Where targets are not met within a realistic timeframe, they provide or refer the patient on to receive expert help as required.

**Planners and funders** ensure they commission diabetes services that enable people with diabetes to agree and document glycaemic and cardiovascular risk targets with their health care professional and receive ongoing review of treatment and expert assistance when targets are not met.

**People with diabetes** agree on glycaemic and cardiovascular risk targets with their health care professional, and have their treatment regularly reviewed. If targets are not met, they receive expert help.



## Introduction

Diabetes and cardiovascular disease (CVD) affect a growing number of New Zealanders each year and have a disproportionate effect on Māori, Pacific people and people of South Asian origin. These diseases affect New Zealanders' quality of life and life expectancy, and the impact is increasing with an ageing population and lifestyle changes. (Ministry of Health 2011, p 2). Good glycaemic control has benefits for microvascular outcomes and, if started early enough, on long term macrovascular outcomes. It is recommended that individualised HbA1c targets be set by individuals and clinicians in partnership, taking into consideration the potential duration of the individual's exposure to hyperglycaemia. The New Zealand Primary Care Handbook 2012

indicates that, in general, a target of 50–55 mmol/mol is appropriate but individual factors, particularly age, should be considered when setting targets.

Tighter control should be considered for younger people due to their higher lifetime risk of diabetes-related complications (New Zealand Primary Care Handbook 2012). HbA1c levels should be monitored regularly to assess whether targets are being met and to enable review if not (Best Practice Advocacy Centre 2013). It has long been accepted that there is a relationship between diabetes and cardiovascular disease (CVD) and a significant number of people have both conditions. People with type 2 diabetes are two to four times more likely to suffer from CVD, which is the main cause of death in people with diabetes (Ministry of Health 2011). It is suggested that fewer than 10% of diabetes patients in the US reach their goals for systolic blood pressure, LDL cholesterol and HbA1c. Clinicians' failure to intensify medication therapy, despite elevated CVD risk factors, is a primary reason (Schmittiel et al 2008).



## Guidelines

While the **New Zealand Primary Care Handbook 2012** remains the main reference for health care practitioners, an additional guide, published in 2013 provides updates for CVD risk assessment, management and diabetes screening advice. This guide helps support practitioners to deliver more heart and diabetes checks for their patients. In addition to the guide, a quick reference sheet summarises the key updates. An online version of the handbook and the 2013 updates are available on the Ministry of Health website ([www.health.govt.nz/system/files/documents/publications/cardiovascular-disease-risk-assessment-updated-2013-dec13.pdf](http://www.health.govt.nz/system/files/documents/publications/cardiovascular-disease-risk-assessment-updated-2013-dec13.pdf)).

The New Zealand Primary Care Handbook 2012 provides information on cardiovascular risk assessment and management and management of type 2 diabetes. The risk appraisal is of overall risk for micro- and macrovascular complications. They recommend that people identified as being at high risk of complications should receive more intensive intervention and follow-up. It can be accessed at: [www.health.govt.nz/system/files/documents/publications/nz-primary-care-handbook-2012.pdf](http://www.health.govt.nz/system/files/documents/publications/nz-primary-care-handbook-2012.pdf).

The **Best Practice Advocacy Centre** (BPAC) has produced a series of articles related to Standard 8, one of which provides guidelines, another implementation advice. 'Improving glycaemic control in people with type 2 diabetes: Expanding the primary care toolbox' ([www.bpac.org.nz/BPJ/2013/June/docs/BPJ53pages6-15.pdf](http://www.bpac.org.nz/BPJ/2013/June/docs/BPJ53pages6-15.pdf)).

For specific insulin and cardiovascular risk management advice see Standards 5, 6 and 7.



## Implementation advice

The **Australian Clinical Management Care Guidelines for type 1 diabetes** state that education (see Standard 1) and psychological support (see Standard 4) are an essential component of standard diabetes care and recommend 'intensified education and psychological support programs should be considered when treatment goals are not being met'(p 7). The practice points for this are:

- educational and psychological interventions should be culturally, developmentally and age appropriate
- the multidisciplinary diabetes health care team should aim to maintain consistent contact with people with diabetes and their families/whānau or carers
- it is important for the multidisciplinary diabetes team to provide preventive interventions for patients and families/whānau (include training parents in effective behaviour-management skills) at key developmental stages, including after diagnosis and before adolescence. The aim of these interventions is to emphasise appropriate family/whānau involvement and support in diabetes management, effective problem-solving and self-management skills, and realistic expectations about glycaemic control (Delamater 2009)
- diabetes care teams should have appropriate access to mental health professionals to support them in the delivery of psychological support
- flexible intensive insulin therapy programs, such as DAFNE, aim to provide dietary freedom for people with type 1 diabetes ([www.apeg.org.au/portals/o/guidelines1.pdf](http://www.apeg.org.au/portals/o/guidelines1.pdf)).

### The **Institute for Clinical Systems Improvement (ICSI)**

([https://www.icsi.org/\\_asset/3rrm36/Diabetes-Interactive0412.pdf](https://www.icsi.org/_asset/3rrm36/Diabetes-Interactive0412.pdf) algorithms) suggest the following for when treatment goals are not met:

- Recommendations
  - If patients are having difficulty achieving treatment goals, consider a modification of treatment goals. In addition, evaluate for potential contributing issues such as adherence, depression and obstructive sleep apnoea (see Standards 1 and 4).
  - A referral to an extended care team clinician can be helpful; this could be as an endocrinologist or other specialist, diabetes educator (diabetes nurse specialist in New Zealand), dietitian or pharmacist.
- Modify treatment based on appropriate related guideline
  - Prevention and management of obesity (mature adolescents and adults) (see Standard 2)
  - Hypertension diagnosis and treatment (see Standards 5 and 6)
  - Lipid management in adults (see Standards 5 and 6)
  - Major depression in adults in primary care (see Standard 4).

### **Consider referral to diabetes care team or specialists**

- Assess patient adherence (see Standards 4 and 5)

Non-adherence with medications can limit the success of therapy and help to explain why a patient is not achieving treatment goals. To screen for non-adherence, clinicians can ask patients open-ended, non-threatening questions at each office visit. The assessment should include probes for factors that can contribute to non-adherence (fear of adverse reactions, misunderstanding of chronic disease treatment, depression, cognitive impairment, complex dosing regimens, or financial constraints):

- assess the patient's knowledge of their condition and their expectations for treatment
- assess the patient's medication administration process
- assess the patient's barriers to adherence.

Interventions to enhance medication adherence should be directed at risk factors or causes of non-adherence. Interventions may include simplifying the medication regimen, using reminder systems, involving family/whānau or caregivers in care, involving multiple disciplines in team care, providing written and verbal medication instructions, setting collaborative goals with patients, and providing education about medications (including potential adverse effects) and about diabetes in general.

#### **Evaluate for depression** (see Standard 4)

There is a substantial increase in the prevalence of depression among people with diabetes as compared to the general adult population (Anderson 2001). Depression impacts the ability of a person with diabetes to achieve blood glucose control, which in turn impacts the rate of development of diabetes complications (de Groot 2001; Lustman 2001).

Identification and management of depression is an important aspect of diabetes care. Self-administered or professionally administered instruments, such as PHQ-9, are useful adjuncts to the clinical interview in the identification of depression. The ICSI Major Depression in Adults in Primary Care guideline provides more suggestions for the identification and management of depression. Intervention studies have demonstrated that when depression is treated, both quality of life and glycaemic control improve. Counselling may be effective, especially among those who are having difficulty adjusting to the diagnosis of diabetes or are having difficulty living with diabetes. Pharmacotherapy for depression is also effective.

#### **Evaluate for obstructive sleep apnoea (OSA)**

Sleep apnoea is a prevalent condition in obese patients with type 2 diabetes and is associated with significant comorbidities including hypertension, cardiovascular disease and insulin resistance. Consider referral of symptomatic patients for sleep evaluation.

Clinicians should be cognisant of potential obstructive sleep apnoea, especially among obese patients (ICSI, pp 17–18).

### **Diabetes care team**

Ensure the patient has an adequate care team. This may include:

- diabetes nurse specialist
- dietitian
- podiatrist
- endocrinologist
- nephrologist
- neurologist
- cardiologist
- ophthalmologist
- vascular specialist.

## Getting to know patients with type 2 diabetes and poor glycaemic control

One size does not fit all. 'People with type 2 diabetes and poor glycaemic control (HbA<sub>1c</sub> >64 mmol/mol) are at increased risk of developing diabetes-related complications and cardiovascular disease (see Standard 3). Engaging with these patients and helping them overcome their individual barriers to achieving a healthier life are a priority for primary care. Where possible, the family/whānau of the patient should be encouraged to be involved in lifestyle changes. Diabetes management plans should be agreed upon using a shared decision-making approach. Treatment targets, including glycaemic control, need to be individualised taking into account patient characteristics, such as age, treatment preference or the presence of comorbidities. Primary care, nurse-led diabetic clinics are an effective way of engaging with and monitoring patients with type 2 diabetes' ([www.bpac.org.nz/BPJ/2014/February/docs/BPJ58-diabetes.pdf](http://www.bpac.org.nz/BPJ/2014/February/docs/BPJ58-diabetes.pdf)).

### Expert help

Access to expert help may not always be available as a workforce survey conducted by the Diabetes Care Workforce Service Review Team (Health Workforce New Zealand 2011) identified a considerable variation in the provision of diabetes specialist physician, nursing, dietitian and podiatry services between DHBs. In addition, the survey found that no DHB had a diabetes specialist physician service at the level recommended by the UK's Federation of the Royal College of Physicians (0.8 full-time equivalent [FTE] per 100,000); the national mean in New Zealand is 0.35 FTE. Recommendations arising from the review were that in order to meet the complex needs of those with diabetes services should consider:

- more mobile health care services
- care provided remotely via electronic communications, where appropriate
- primary health services to identify and manage high-risk individuals
- specialist interdisciplinary teams to focus on patients with more complex needs.



## Implementation examples / innovations



### Dunedin-based Registered Clinical Trial (RCT)

A Dunedin-based RCT (Coppell et al 2010) compared usual care with usual care plus intensive individualised dietary advice over a six-month period. There were 93 participants aged less than 70 with type 2 diabetes, HbA<sub>1c</sub> greater than 53 mmol/mol despite optimal drug treatment, and at least two of overweight or obesity, hypertension and dyslipidaemia. After adjusting for age, sex, and baseline measurements, the difference in HbA<sub>1c</sub> between the intervention and control groups at six months was highly statistically significant as were decreases in BMI and waist measurement. A decrease in saturated fat and an increase in protein in the intervention group were the most striking differences in nutritional intake between the two groups.



## Assessment tools

In order to meet the requirements of this standard, individuals who are not achieving their targets first need to be identified. BPAC NZ have provided an audit process designed to identify and document the needs of people not meeting their targets in order to step up treatment and track progress in general practice. The following link leads to a document providing information, guidance on identification and audit sheets for data collection: ([www.bpac.org.nz/Audits/docs/bpacnz\\_audit\\_diabetes\\_controlled.pdf](http://www.bpac.org.nz/Audits/docs/bpacnz_audit_diabetes_controlled.pdf)).

The following indicators can be used to assess quality.

### Process

The proportion of people with diabetes with agreed, documented targets.

Numerator	The number of people in the denominator with agreed, documented glycaemic and CVD targets
Denominator	The number of people with diabetes

The proportion of people with diabetes achieving their agreed targets.

Numerator	The number of people in the denominator achieving their agreed targets
Denominator	The number of people with diabetes

The proportion of people with diabetes who have received a review of treatment in the previous 12 months.

Numerator	The number of people in the denominator receiving a review of treatment in the previous 12 months
Denominator	The number of people with diabetes

The proportion of people with diabetes who are not meeting targets and receiving expert help.

Numerator	The number of people in the denominator who have received or been referred on for expert help with reaching targets
Denominator	The number of people with diabetes who are not meeting agreed targets

### Audit checklist

- The individual and practitioner have discussed, agreed on and documented target levels of glycaemic and modifiable cardiovascular risk factors.
- Regular monitoring of targets is in place to assess progress.
- Individuals not meeting agreed targets are easily identified.
- Lifestyle issues are addressed and recommendations and support provided.
- Treatment is reviewed and altered if required to enhance control.
- Those not meeting targets despite optimal guideline based treatment are referred for expert help.
- Data is collected to monitor progress and for reporting purposes.



## Resources

The **Institute for Clinical Systems Improvement (ICSI)** has produced a glycaemic control algorithm which can be found here: [www.guideline.gov/algorithm/5391/NGC-5391\\_2.pdf](http://www.guideline.gov/algorithm/5391/NGC-5391_2.pdf).

### **New Zealand Primary Care Handbook 2012**

[www.health.govt.nz/system/files/documents/publications/nz-primary-care-handbook-2012.pdf](http://www.health.govt.nz/system/files/documents/publications/nz-primary-care-handbook-2012.pdf)



## References

Best Practice Advocacy Centre New Zealand. 2013. Improving glycaemic control in people with type 2 diabetes: Expanding the primary care toolbox. *Best Practice Journal* 53: 6–15. Retrieved from [www.bpac.org.nz/BPJ/2013/June/docs/BPJ53pages6-15.pdf](http://www.bpac.org.nz/BPJ/2013/June/docs/BPJ53pages6-15.pdf).

Best Practice Advocacy Centre New Zealand. 2014. Getting to know patients with type 2 diabetes and poor glycaemic control: One size does not fit all. *Best Practice Journal* 58: 40–8. Retrieved from [www.bpac.org.nz/BPJ/2014/February/docs/BPJ58-diabetes.pdf](http://www.bpac.org.nz/BPJ/2014/February/docs/BPJ58-diabetes.pdf).

Coppell K, Kataoka M, Williams SM, et al. 2010. Nutritional intervention in patients with type 2 diabetes who are hyperglycaemic despite optimised drug treatment—Lifestyle Over and Above Drugs in Diabetes (LOADD) study: Randomised controlled trial. *British Medical Journal* 341: c3337. doi: <http://dx.doi.org/10.1136/bmj.c3337>.

Health Workforce New Zealand. 2011. *Diabetes Workforce Service Review. Report of the Diabetes Care Workforce Service Review*. Retrieved from [www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts/diabetes-workforce-service-forecast](http://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts/diabetes-workforce-service-forecast).

Ministry of Health. 2011. Targeting diabetes and cardiovascular disease. Wellington: Ministry of Health. Retrieved from <https://www.health.govt.nz/system/files/documents/publications/targeting-diabetes-cardiovascular-disease.pdf>.

New Zealand Guidelines Group. 2012. *New Zealand Primary Care Handbook 2012* (3rd edition). Wellington: Ministry of Health. Retrieved from [www.health.govt.nz/publication/new-zealand-primary-care-handbook-2012.pdf](http://www.health.govt.nz/publication/new-zealand-primary-care-handbook-2012.pdf).

Schmittziel JA, Uratsu CS, Karter AJ, et al. 2008. Why don't diabetes patients achieve recommended risk factor targets? Poor adherence versus lack of treatment intensification. *Journal of General Internal Medicine* 23(5): 588–94. doi: [10.1007/s11606-008-0554-8](https://doi.org/10.1007/s11606-008-0554-8).