A systems approach to the management of diabetes

A guide for general practice networks
A systems approach to the management of diabetes: A guide for general practice networks

Disclaimer
This resource is for information purposes only and is designed as a general reference and catalyst for seeking further information. It is acknowledged that the capacity of both general practice networks and practices will vary in their ability to implement this information and it is intended as a guide only. This guide is not intended as a source for clinical information on diabetes. This publication was supported by funding from the Australian Government. The publication reflects the views of the authors and does not necessarily reflect the views of the Australian Government.

Published by:
The Royal Australian College of General Practitioners
College House
1 Palmerston Crescent
South Melbourne, Victoria 3205
Australia
Tel 03 8699 0414
Fax 03 8699 0400
www.racgp.org.au

Published July 2010
© The Royal Australian College of General Practitioners. All rights reserved.
This guide has been developed as part of the Clinical Practice Guidelines Dissemination and Implementation Project, and is supported by funding from the Australian Government Department of Health and Ageing.

The Royal Australian College of General Practitioners gratefully acknowledges the following people who were involved in the development and review of this guide:

**Advisory Committee**
- Dr Richard Bills
- Jane Bacot-Kilpatrick, Australian General Practice Network
- Janet Lagstrom, Australian Association of Practice Managers
- Dr Ross Nable, General Practice Victoria
- Di Bennet, Sunshine Coast Division of General Practice

**RACGP staff**
- Helen Bolger-Harris
- Judy Evans
- Lynne Walker
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Section 1. Diabetes overview for network program staff</td>
<td>11</td>
</tr>
<tr>
<td>Why is diabetes important?</td>
<td>11</td>
</tr>
<tr>
<td>Diabetes – what is it?</td>
<td>12</td>
</tr>
<tr>
<td>Prevalence</td>
<td>13</td>
</tr>
<tr>
<td>Risk factors</td>
<td>14</td>
</tr>
<tr>
<td>Impact on general practice</td>
<td>15</td>
</tr>
<tr>
<td>Useful websites</td>
<td>15</td>
</tr>
<tr>
<td>Section 2. Practice capacity: identifying organisational features</td>
<td>17</td>
</tr>
<tr>
<td>affecting system based diabetes care</td>
<td></td>
</tr>
<tr>
<td>Practice capacity</td>
<td>17</td>
</tr>
<tr>
<td>Teamwork</td>
<td>18</td>
</tr>
<tr>
<td>Clinical leadership</td>
<td>19</td>
</tr>
<tr>
<td>Change management</td>
<td>20</td>
</tr>
<tr>
<td>Continuous quality improvement</td>
<td>22</td>
</tr>
<tr>
<td>Useful websites</td>
<td>25</td>
</tr>
<tr>
<td>Section 3. Designing delivery systems for diabetes care</td>
<td>27</td>
</tr>
<tr>
<td>Planned care</td>
<td>27</td>
</tr>
<tr>
<td>Models of care</td>
<td>28</td>
</tr>
<tr>
<td>Practice staff roles</td>
<td>30</td>
</tr>
<tr>
<td>Financial sustainability</td>
<td>32</td>
</tr>
<tr>
<td>Useful websites</td>
<td>33</td>
</tr>
<tr>
<td>Section 4. Clinical information systems and diabetes</td>
<td>35</td>
</tr>
<tr>
<td>Information</td>
<td>35</td>
</tr>
<tr>
<td>Information lifecycle</td>
<td>35</td>
</tr>
<tr>
<td>Information management</td>
<td>36</td>
</tr>
<tr>
<td>Clinical audit tools</td>
<td>38</td>
</tr>
<tr>
<td>Useful websites</td>
<td>39</td>
</tr>
<tr>
<td>Section 5. Decision support for diabetes management</td>
<td>40</td>
</tr>
<tr>
<td>The gaps in care</td>
<td>40</td>
</tr>
<tr>
<td>Evidence based practice</td>
<td>41</td>
</tr>
<tr>
<td>Clinical practice guidelines</td>
<td>41</td>
</tr>
<tr>
<td>Barriers to practice staff use of clinical practice guidelines</td>
<td>42</td>
</tr>
<tr>
<td>Practice Incentives Program eHealth Incentive</td>
<td>42</td>
</tr>
<tr>
<td>Guidelines and education relevant to diabetes</td>
<td>42</td>
</tr>
<tr>
<td>Useful websites</td>
<td>45</td>
</tr>
<tr>
<td>Section 6. General practice networks supporting self management</td>
<td>48</td>
</tr>
<tr>
<td>Self management</td>
<td>48</td>
</tr>
<tr>
<td>The shift to self management</td>
<td>49</td>
</tr>
<tr>
<td>Useful websites</td>
<td>50</td>
</tr>
<tr>
<td>Appendix 1. Medicare Benefits Schedule item numbers</td>
<td>52</td>
</tr>
</tbody>
</table>
Introduction

The overall aim of this guide is to provide staff in general practice networks with information and resources that will assist practices to improve the care of people with diabetes.

International research has demonstrated that health systems can be redesigned to prevent and manage chronic illness or disease more effectively. This guide will focus on the practice systems needed to support the implementation of existing clinical guidelines such as The Royal Australian College of General Practitioners (RACGP)/Diabetes Australia publication *Diabetes management in general practice: guidelines for type 2 diabetes* and acknowledges that practices are unique and have individual resources and capacity to implement systematic chronic disease care.

This resource is formatted in a way that is consistent with the chronic care model:
- Section 1. Diabetes overview for network program staff
- Section 2. Practice capacity: identifying organisational features affecting system based diabetes care
- Section 3. Designing delivery systems for diabetes care
- Section 4. Clinical information systems and diabetes
- Section 5. Decision support for diabetes management
- Section 6. General practice networks supporting self management
- Appendix 1. Medicare Benefits Schedule item numbers.

Although this project focuses on type 2 diabetes, a systems based design for the care of patients with a diagnosis of any type of diabetes will require the same approach, such that the general practice team can apply the information in this guide to types of diabetes other than type 2.

How to use this guide

This resource covers many topics that support the systematic care of patients with diabetes. It is intended that general practice networks will use this information to engage with practices in order to make changes in the way they approach chronic disease care.

The following icons direct the reader to further activities and resources:

- Indicates educational activities that support the topic – these can be accessed by both general practice networks and individual practices
- Indicates resources that can be used electronically or printed

This guide is not intended as a resource for clinical information, this can be obtained from the RACGP/Diabetes Australia publication *Diabetes management in general practice: guidelines for type 2 diabetes*. 
Role of general practice networks

Divisions of general practice were introduced in 1992 and have been evolving ever since. The federally funded groups are regionally based organisations that can interact with other healthcare provider groups funded by the Commonwealth or by state governments. Divisions of general practice provide advocacy for general practitioners and engage in activities such as training, research, education, and development of business practice models. Importantly they are able to provide a range of services to support the implementation of guidelines which ultimately improve patient care and reduce the burden of chronic disease on the community.

The Australian General Practice Network (AGPN) is the peak national body representing 110 divisions of general practice and their state based organisations across Australia. The AGPN aims to strengthen the effectiveness of the general practice sector, contribute to the development of national health policy, and provide national leadership in health system development. Since 1992 there have been numerous examples of innovative projects designed to improve health service delivery at a local level.

Chronic disease

Chronic diseases are long term diseases, often complex, which can be severe and contribute to disability and premature death. Features common to chronic disease include:

- a long development period, sometimes, and at some stages, with no symptoms
- a complex causality, with multiple factors leading to onset
- a prolonged course of illness, perhaps leading to other health complications
- an associated functional impairment or disability.

Although more common in older age groups, chronic disease, including diabetes, can occur at any age. The RACGP Curriculum Statement for Australian General Practice, ‘Chronic Illness’ defines chronic illness as ‘the irreversible presence, accumulation or latency of disease states or impairment that involve the total human environment for supportive care, maintenance of function and prevention of further disability.” This contrasts with the Medicare Benefits Schedule (MBS) definition which is much simpler and focuses on duration rather than impact. For the purposes of the MBS a chronic disease is one that is present for 6 months or longer.

Australia is aligned with the global picture of chronic diseases.

- In 2004–2005, 77% of Australians had at least one long term condition
- Chronic diseases can be a problem at all ages: almost 10% of children 0–14 years of age had three or more long term conditions – this figure increases to more than 80% for those aged 65 years and over
- Many people are at risk of developing chronic diseases (eg. 54% of adult Australians are either overweight or obese)
- Some groups of people are affected much more than others, eg. compared with other Australians, Aboriginal and Torres Strait Islander people have higher mortality from diabetes (14 times higher), chronic kidney disease (8 times higher) and heart disease (5 times higher).
The impact of chronic disease

The number of people with chronic diseases continues to increase. In 2004–2005, the 77% of Australians with at least one long term condition included the following:

- asthma (10% of the total population)
- osteoarthritis (7.9%)
- depression (5.3%)
- diabetes (3.5%).

It is expected that by 2020 type 2 diabetes will affect around 1 million Australian adults.

Reasons for the increasing number of people affected with a chronic disease include:

- the reduction in the prevalence and incidence of infectious illnesses through advances in prevention and treatment
- people are living much longer, with an increase in average life expectancy for both males and females. Figure 1 demonstrates the changing age structure of the Australian population.

Figure 1. Age structure of Australian population

• lifestyle changes have increased exposure to risk factors for chronic disease. Approximately one third of chronic disease burden can be attributed to:
  – tobacco smoking
  – risky alcohol use
  – physical inactivity
  – poor diet and nutrition
  – excess weight
  – high blood pressure
  – high cholesterol

• several population groups have a higher prevalence of chronic diseases – these include:
  – older Australians
  – socioeconomically disadvantaged groups
  – people experiencing mental illness
  – people experiencing physical and intellectual disabilities
  – Aboriginal and Torres Strait Islander people.

Health system implication
Currently Australia spends approximately $800 billion per year on healthcare. Chronic diseases are associated with high expenditure because they are complex, they require the use of health services, they require medications over extended periods of time and there is often a development of comorbidities such as depression. Currently chronic diseases account for nearly 70% of allocated health expenditure with 1.6% attributed to diabetes. Australia’s health system is oriented toward acute care with delivery and funding of services favouring acute and episodic care. In order to manage the healthcare needs of the community population, and provide the wide range of services required by people with chronic disease, general practice networks are assisting practices to change the way they deliver healthcare to the community.
Figure 2 represents three levels of healthcare that the health system must have – these correspond to the varying levels of disease complexities.

The majority of the care required by 70–80% of the population involves self management support and this is likely to be undertaken in the general practice environment.

**Workforce**

In order to be able to implement effective and sustainable chronic disease management, there needs to be a workforce that has the capacity and skills to meet the needs for chronic illness prevention – now and into the future.

There is a recognised shortage of key health professionals including GPs and practice nurses and despite government initiatives to address this issue, the problem remains. A focus on providing a multidisciplinary and integrated workforce with the skills and competencies to deliver preventive health and self management support is paramount. The World Health Organization\(^ {11} \) recommends all staff working with the chronically ill have the following skills.

- **Patient centred care** – interviewing and communicating effectively, assisting change in health related behaviour, supporting self management and using a proactive approach
- **Partnering with patients, other providers and communities**
- **Quality improvement** – measuring care and its outcomes, learning and adapting to change and translating evidence into practice
- **Information and communication technology** – designing and using patient registries, using computer technologies and communicating with partners
- **Public health perspective** – providing population based care, systems thinking, working across the continuum, and working in primary healthcare led systems.

The Central Highlands GP Network has produced a Population Health Tool Kit which examines aspects of population health in relation to general practice.
General practice networks are perfectly placed to assist practices in developing these competencies for all staff working in the general practice environment, as they apply in one way or another to every staff member in a general practice.

**Role of general practice networks**

- Recognise that practice staff require specific skills to work with patients who are chronically ill
- Promote and provide education in these areas for practice staff
- Encourage networking and partnerships within the community
- Promote self management
- Encourage systems thinking.

**National Chronic Disease Strategy**

The National Chronic Disease Strategy has been developed to provide policy direction in order to improve chronic disease prevention and care (including diabetes care) and is a nationally agreed agenda. It focuses on the health system and the significant changes that are needed in order for it be able to cope with the current and future demands of chronic disease prevention and care.

The National Service Improvement Framework for Diabetes is intended to encourage the delivery of more person centred, equitable, timely, affordable, and cohesive healthcare for all Australians with diabetes. The National Service Improvement Framework for Diabetes is based on these principles.

- Adopt a population health approach
- Prioritise health promotion and illness prevention
- Achieve person centred care and optimise self management
- Provide the most effective care
- Facilitate coordinated and integrated multidisciplinary care across services, settings and sectors
- Achieve significant and sustainable change
- Ensure that progress is monitored
- Locate people, families and communities affected by chronic disease at the centre of care
- Span both the continuum of care and the life course for the condition, and embrace, where necessary; prevention, diagnosis, treatment, rehabilitation, living with the condition and palliation
- Span different clinical and community settings
- Acknowledge that many chronic diseases share risk factors
- Support and encourage the application of evidence based practice to focus on the needs of high risk groups such as Aboriginal and Torres Strait Islander people
- Acknowledge carers and families affected by chronic disease as being part of the broader experience of these conditions.

The national priority actions for the care of people with diabetes include:

- reducing risk
- diagnosing diabetes early
- providing best care and support during the early stages
A systems approach to the management of diabetes: A guide for general practice networks

• offering best long term care
• supporting acute episodes.13

General practice provides care in all of the action areas above, and general practice networks provide a key function in assisting practices to identify their role and contribution in each of these areas.

Quality and safety

Quality in healthcare, and more specifically quality in general practice, operates within a business environment. This is influenced by the education, training and aspirations of GPs, and a regulated marketplace – often a balance is difficult to achieve.14 The World Organization of Family Doctors (Wonca) defines quality as:

‘The best outcomes possible given available resources and the preferences and values of patients.’15

The alternate of quality is the failure of quality, or errors, or the risk of errors.16 The concept of risk management has heightened in recent years as general practice strives to close the gaps in evidence-knowledge, reduce errors and raise the standards that have been set for clinical and organisational procedures.

It is argued that quality strategies should proceed on four levels:17
• individual practitioner
• group or team
• organisation
• system.

The RACGP Quality Framework background paper provides numerous examples of issues for quality and concludes that there is room for improvement in healthcare for Australians. Evidence suggests that some patients do not receive best practice care, there is significant variability in care, and there is evidence of medical errors and latent failures.18

This resource recognises that general practice networks play an important role in addressing quality or risk management on all the four levels indicated above.

Standard 3.1

Our practice supports quality improvement activities

Chronic disease management

Although as a whole the chronic care model does not provide a research base for chronic disease management, it does provide a conceptual framework for understanding some of the elements considered essential for the management of chronic disease.19
Figure 3 illustrates the elements of the chronic care model – to provide a conceptual framework, this guide is structured around these elements.

The chronic care model

The framework describes six elements. The six elements of the chronic care model as described by Zwar\textsuperscript{10} are as follows.

- Delivery system design – the structure of the medical practice to create teams with a clear division of labour, separating the acute from the planned care
- Self management support – collaboratively helping patients and their families to acquire the skills and confidence to manage their condition. Provide self management tools, referrals to community resources, routinely assessing progress
- Decision support integration of evidence based clinical guidelines into practice and reminder systems. Guidelines reinforced by clinical ‘champions’ providing education to other health professionals
- Clinical information systems – three important roles of computer information systems are to provide:
  - reminder systems to improve compliance with guidelines
  - feedback on performance measures
  - registries for planning the care of chronic disease
- Community resources (eg. linkages with hospitals that provide patient education classes, or with home care agencies that provide case managers and linkages with community based resources such as exercise programs, self help groups, and senior centres)
- Healthcare organisation – the structure, goals and values of the provider organisation. The relationship of the organisation with purchaser, insurers and other providers underpins the model.

Figure 3. The chronic care model
Source: MacColl Institute

Improved outcomes
Introduction

This guide will follow the chronic care model as it is a well recognised and respected model for the management of chronic disease. At the same time, this guide acknowledges that each practice as well as each division will vary considerably in its knowledge and expertise of each of the elements of this model.

Conclusion

A systems approach to the management of diabetes in general practice will provide information to general practice staff (some of whom will have little or no clinical background) for the successful management of type 2 diabetes. This guide recognises that the fundamental elements required for diabetes management are aligned to almost any other chronic disease and that it could be used for managing other illnesses.

Useful websites

Australian Department of Health and Ageing
www.health.gov.au

Australian General Practice Network
www.agpn.com.au

Chronic care model
www.improvingchroniccare.org/index.php?p=The_Chronic_Care_Model&s=2

Chronic Care Model
www.improvingchroniccare.org/index.php?p=The_Chronic_Care_Model&s=2

Clinical guidelines for the management of diabetes
www.racgp.org.au/guidelines/diabetes

Medicare Benefits Schedule

National Service Improvement Framework for Diabetes

Population Health Tool Kit

Quality Framework Background Paper
www.racgp.org.au/qualityframework

The National Chronic Disease Strategy

World Health Organization
www.who.int/en
References

7. ibid.
8. ibid.
13. ibid., p. 9.
16. ibid., p.4.
20. ibid.
Section 1. Diabetes overview for network program staff

Introduction

This overview of diabetes will focus on what diabetes is, its complications, burden of disease, and its impact on quality of life. Section 1 provides the evidence base for the systems based approach for diabetes care by primary care staff.

Why is diabetes important?

Diabetes is one of the most challenging public health problems and common chronic diseases affecting Australians. The following points highlight diabetes as a health priority.1

- Type 2 diabetes is largely preventable
- Aboriginal and Torres Strait Islander people are 3 times more likely to have diabetes as are non-Aboriginal Australians
- Diabetes was responsible for 5.5% of the total burden of disease in 2003 (92% due to type 2 diabetes)
- In 2005, 3% of deaths in Australia were directly due to diabetes and it contributed to another 6% of deaths
- The proportion of people with diabetes doubled from the period 1989–1990 to the period 2004–2005
- Diabetes and the comorbidities it can cause lead to a strong cost burden
- Between 2000–2001 and 2004–2005 the rate of hospitalisation due to diabetes increased by 35%
- More than half of the people with diagnosed diabetes also had a disability – 25% considered diabetes as the main condition causing their disability
- Direct health expenditure on diabetes in 2004–2005 was $907 million
- Diabetes can have a strong impact on quality of life
- People with diabetes are more likely to rate their health as ‘fair’ or ‘poor’
- People with diabetes report higher levels of psychological distress
- 30% of men with self-reported diabetes suffer from impotence
- Diabetes can cause complications
- People with diabetes are twice as likely to have a heart attack
- People with diabetes are three times as likely to have a stroke
- People with diabetes are more likely to have eye problems (cataracts, glaucoma, retinopathy, loss of vision)
- Diabetes is the most common cause of blindness in people over 60 years of age
- 2% of people with diabetes are completely or partially blind
- Diabetic nephropathy is responsible for nearly one-third of the people having treatment for endstage kidney disease (an increase of 28% in 4 years)
- Diabetes is the most common reason for commencing dialysis
- Diabetes can lead to nerve damage and possible leg or foot amputations in extreme cases
- Diabetes is the most common cause of nontraumatic lower limb amputation.
Diabetes – what is it?

Diabetes mellitus (diabetes) is a chronic condition that occurs when the level of glucose (a type of sugar) in the blood becomes higher than normal as a result of the body being unable to produce sufficient insulin or being unable to use insulin properly.

Insulin is a hormone that moves glucose from your blood stream into the cells of your body where it is used for energy. When you have diabetes, the body either stops making insulin (type 1); or can’t make enough insulin (type 2); or the insulin that is being made does not work properly (type 2). This causes your blood glucose level to become too high.

The preferred terminology for classification and diagnosis of diabetes are now the etiologically based terms: type 1 and type 2 diabetes.

Type 1 diabetes

Type 1 diabetes is an autoimmune disease of unknown cause. The beta cells in the pancreas which produce insulin are destroyed, usually leading to total insulin deficiency. Age of onset is usually young: mostly in children and young adults, but can occur at any age. The patient presents with rapid onset of thirst, unexplained weight loss and excessive urine. Insulin is urgently required to prevent death. However, this process may occur slowly in some patients.

Type 2 diabetes

Type 2 diabetes is known as a lifestyle disease, patients will produce insulin but in insufficient amounts. Cells in the body become resistant to the action of insulin. Type 2 diabetes often runs in families.

Age of onset is usually (but not always) older than 30 years. Type 2 is the most common form of diabetes with a gradual onset of milder symptoms. Patients can often have no symptoms and may present with complications or gradual onset of tiredness, urinating at night, various types of skin infections, and genital or oral thrush. Patients are often obese and suffer from high blood pressure and high cholesterol. Healthy eating and exercise is advised and medications are often needed, with insulin sometimes introduced in the long term.

Further information on factors complicating management can be found in the RACGP/Diabetes Australia publication, *Diabetes management in general practice: guidelines for type 2 diabetes* handbook.

Other types

Other types of diabetes may result from uncommon causes such as genetic defects, carcinoma, diseases of the pancreas, drug induced, congenital infections and other genetic syndromes and associations. This group accounts for less than 5% of patients and will not be discussed in this guide.

Pre-diabetes

There are three conditions linked to an increased risk of diabetes.

**Impaired fasting glucose (IFG)** – the glucose level is higher than normal after a 10 hour fast (fasting blood glucose) but not high enough to be called impaired glucose tolerance (IGT) or diabetes (5.5–7.0 mmol/L)

**Impaired glucose tolerance (IGT)** – this is now recognised as a stage in the natural history of abnormal carbohydrate metabolism and 3% per year of subjects with IGT progress to diabetes. People who have a family history of type 2 diabetes, or are overweight or physically inactive are more likely to have IGT.

People with pre-diabetes are 10–20 times more likely to develop diabetes than those with normal blood glucose levels.
**Gestational diabetes (GDM)** – GDM is detected for the first time during pregnancy. It usually regresses after the birth of the baby but is likely to recur with successive pregnancies. One in twenty pregnancies are affected by GDM and 50% will progress to type 2 diabetes within 15 years. It is found and is more likely in women who are overweight; have a family history of type 2 diabetes; or women of Aboriginal or Torres Strait Islander, Indian, Vietnamese, Chinese, Middle Eastern or Polynesian background. Although GDM is first diagnosed during pregnancy and may disappear after pregnancy, there is a high risk of diabetes returning later in life.

**Prevalence**

In order to be able to manage resources it is important to understand the national and local prevalence of diabetes. Prevalence is the number of people with diabetes at any given time. Prevalence rates vary according to different studies. Data collected from the AusDiab study, 1999–2000 determined that 7.4% of the population or 1 in 14 people had diabetes. The proportion of people with diabetes increases with age, with 23% of people over the age of 75 years having diabetes. AusDiab also showed that half the cases detected in the survey had not been diagnosed, indicating that for every person diagnosed with diabetes there was another undiagnosed case.

The prevalence of diabetes is increasing. This is primarily due to the increasing numbers of people with type 2 diabetes, but also to the prevalence of type 1 diabetes and the increase in GDM. The percentage of the population with diabetes has increased from 1.3% to 3.3%. This statistic is due to several factors:

- more people are developing the disease
- people with the disease are living longer
- there is better detection of the disease.

**Type 2 diabetes prevalence**

By far the most common form of diabetes is type 2 diabetes. AusDiab states 7.1% of the population has type 2 diabetes, accounting for 96% of all cases of diabetes.

**Local prevalence**

The Australian Diabetes Map shows the numbers of people diagnosed with diabetes in all parts of Australia with information on age, gender and type of diabetes according to National Diabetes Services Scheme registrants. This map can be used by practices to compare their rate against the national average.
Risk factors

Risk factors are characteristics that are associated with an increased risk of developing a particular disease or condition. Risk factors can be classed as demographic, behavioural, biomedical, genetic, environmental, social, or other factors, and can act alone or in combination. Generally speaking the more risk factors a person has, the more likely they are to develop the condition. The following table from the Australian Institute of Health and Welfare lists the range of risk factors, classifying them as modifiable and nonmodifiable.

<table>
<thead>
<tr>
<th>Modifiable risk factors</th>
<th>Broad influences (may or may not be modifiable)</th>
<th>Nonmodifiable factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural</td>
<td>Biomedical</td>
<td></td>
</tr>
<tr>
<td>• Tobacco smoking</td>
<td>• Excess weight</td>
<td>• Age</td>
</tr>
<tr>
<td>• Excess alcohol use</td>
<td>• High blood pressure</td>
<td>• Gender</td>
</tr>
<tr>
<td>• Physical inactivity</td>
<td>• High blood cholesterol</td>
<td>• Indigenous status</td>
</tr>
<tr>
<td>• Poor diet</td>
<td>• Other</td>
<td>• Ethnic background</td>
</tr>
<tr>
<td>• Other</td>
<td>• Socioenvironmental factors</td>
<td>• Family history</td>
</tr>
<tr>
<td>• Other</td>
<td>• Early life factors</td>
<td>• Genetic makeup</td>
</tr>
<tr>
<td>• Other</td>
<td>• Political factors</td>
<td></td>
</tr>
</tbody>
</table>

Standard 1.3 Criterion 1.3.1

Our practice provides health promotion and illness prevention services that are based on best available evidence.

Role of general practice networks

- Organise education on this topic
- Use small group learning packages to encourage staff to conduct in house training
- Incorporate aspects of prevention in education events
Impact on general practice

The impact of diabetes on general practice is significant, with consultations for diabetes (non gestational) accounting for 7.1% of all chronic problems or 3.7% of all consultations by GPs.17

Conclusion

Diabetes has enormous implications for individuals, our communities and the health system in general. As the incidence grows it has become necessary to look at ways to streamline the care that general practice can provide to people with this chronic and sometimes complex condition. In their supportive role, general practice networks are able to assist practices to meet the challenges of delivering evidence based care to this group of patients in a range of ways.

Useful websites

Australian Absolute Cardiovascular Disease Risk Calculator
www.cvdcheck.org.au

Australian Diabetes Map

Australian Institute of Health and Welfare

International Diabetes Institute
www.bakeridi.edu.au

National Diabetes Services Scheme
www.ndsa.com.au

Prevention of cardiovascular disease, diabetes and chronic kidney disease: targeting risk factors

Putting diabetes guidelines into practice (gplearning)

Small group learning: Module 2. Diabetes screening and prevention
www.racgp.org.au/guidelines/diabetes

The Australian Type 2 Diabetes Risk Assessment Tool (AUSDRISK)

The RACGP and Diabetes Australia
Diabetes management in general practice: guidelines for type 2 diabetes, 2009
**Introduction**

Practice capacity is the ability of a general practice to provide efficient, effective and sustainable care for patients who attend the practice. Practice capacity will vary according to the location and characteristics of the practice and the community it services.

This section will focus on the elements of practice capacity that are necessary within individual practices for them to work systematically, and ultimately improve the care of patients with diabetes.

**Practice capacity**

The factors that affect each practice in its ability to provide effective chronic disease care can be grouped into three categories.¹

**Practice characteristics**

- Solo/group/corporate
- Size (patients, staff GP/patient ratio)
- Organisational structure
- Generalist/specialist
- Accredited
- Vocationally registered
- Percentage of bulkbilled consultations
- Practice population (ethnicity, urban/rural)
- Local competition.

**Practice subsystems**

- Clinical services (medical supplies, pathology, immunisation, enhanced primary care, recall reminder, reports, equipment, triage, clinical services, patient education)
- Financial (accounting, billing, business planning, analysis)
- Human resources (recruitment, payroll, roles and responsibilities, training, appraisal, policies and procedures)
- Facilities (building, layout and access, infection control, IT/IM, stock control, telephone, storage)
- Patient services (records, appointments, marketing, practice information/surveys).

**Practice context (mediators of practice function)**

- Organisational culture
- Strategic vision, analysis, planning, implementation, review
- Leadership
- Communication
- Team functioning
- Competencies and attitudes of staff including GPs
• Motivation and wellbeing of GPs and practice staff
• Job control/autonomy of GPs and practice staff
• Patient experiences and expectations.

Before embarking on a program to assist practices to manage chronic diseases such as diabetes, each general practice network may choose to assess the capacity of individual practices based on the list above.

The practice checklist may assist them to do this
Assessment of chronic illness care can be downloaded from the McColl Institute for Healthcare Innovation – this is a more sophisticated tool for evaluating a practice’s ability to manage chronic disease
Small group learning: Module 6. Practice systems and tools for improving care for patients with diabetes

Teamwork

One of the contributing factors to building practice capacity and promoting quality is teamwork. ‘A team is a group with a specific task or tasks, the accomplishment of which requires the interdependent and collaborative efforts of its members’. The quality of chronic disease care is related to the level of teamwork among staff. It has and been identified as a fundamental component in delivering effective care to the chronically ill and preventing inevitable mistakes from harming patients and providers.

Within a practice setting, the concept of team based care requires an organisational framework that promotes and supports the team members working together. The size of the practice team will vary depending on the factors listed previously.

The roles of practice team members have been found to be poorly defined. It has been suggested that for optimal teamwork to be achieved, practice leaders need to be established, formal team meetings held, and team members need to be engaged to work together.

If team members integrate their skills, strengths are accentuated and weakness minimised – this is usually called a successful team. On the other hand, if groups perform as individuals the team usually fails. A successful team needs the commitment of all members.

Five key elements of team building are:
• clear goals with measurable outcomes
• division of labour – definition of tasks and assignment of roles
• communication – building structures and processes for communication, eg. team meetings
• clinical and administrative systems – policies and procedures on how decisions are made in the practice
• training – enables staff to do their jobs with competence and confidence.

There is a strong link between constructive teams and financial success, long term sustainability and effective team performance.

By building effective teams, practices will be better positioned to provide effective diabetes care and general practice divisions can support practices to do this.

‘The team approach’, chapter 3 of the RACGP/Diabetes Australia publication, Diabetes management in general practice: guidelines for type 2 diabetes discusses who are the health professionals that may contribute to the care of patients with diabetes.

Small group learning: Module 1. Using a team approach to achieve high quality diabetes care
Standard 1.5 Criterion 1.5.3
Our practice has regular meetings to discuss clinical care

How effective is the team?
Two tools are listed below and can be used to assess the effectiveness of the practice team.

- The Australian Primary Care Collaboratives, ‘Team resources and team health check assessment’ tool
- Working in Partnership Program, ‘How well is your team functioning self assessment?’

These questionnaires are to be used to guide reflection and to start a conversation within a practice team on how it functions.

Role of general practice networks

- Assist practices with sourcing/developing job descriptions for all staff
- Provide education on building systems and teams
- Encourage staff members who show ability to become leaders and facilitators of change
- Use the tools to create discussion at continuing professional development events
- Offer training in team building.

By building effective systems practice staff can plan, implement, manage and evaluate the care that they provide to patients with chronic conditions including diabetes. Having a successful team is facilitated by good leadership.

Clinical leadership

Leadership is ‘the process through which an individual attempts to intentionally influence another individual or a group in order to accomplish a goal’.8

Changing complex systems in environments such as general practice requires leadership. The role of a practice clinical leader is to empower teamwork, create an open and questioning culture and ensure that both the ethos and the day-to-day delivery of clinical governance remains an integral part of every clinical service.9

Good clinical leadership will create an environment in which excellence will prosper. Clinical leadership is required to build a participative team model and has been found to be a key success factor for improvement programs.10

Guidelines provide the minimum standards for practice and encourage evidence based practice and leaders to use their influence to make this happen. Importantly, clinical leaders support their colleagues through change and help them to see various options and choices.

Role of general practice networks

- Identify the clinical leader in the practice
- Use the clinical leader to influence other members of staff when implementing new tools, education or services in the practice
- Ensure access to current evidence based clinical guidelines.
Change management

Implementing new systems into the practice or introducing quality improvement processes may require significant change within the practice. Failure to implement change process can result in unhappy staff and unproductive time spent managing conflict. Understanding the principles of change management and development and implementation of policies will result in less conflict and a more efficient introduction of new systems and guidelines.

Change is generally not embraced when:

- we are not involved in the change design
- we feel that our opinions are not considered
- we do not see benefits for ourselves arising from the change
- we do not feel the patients or the wider community would benefit from the change
- we like the present status quo
- we do not trust/respect/like the person or group proposing the change
- we cannot see the big picture and how the change would contribute to it
- we are not given support and time to adjust to the changes
- we are expected to change too many things at the same time
- change is not carried through properly
- we do not understand the reasons for the change
- there is no clarity about the aims and objectives of the change
- we believe other things need changing more urgently
- we believe the time is not right for the particular change
- the degree of change is too great to be readily assimilated.

Change is generally met with enthusiasm when:

- we propose the change
- we are involved in designing the change
- we feel that our opinions are heard and contribute to the new change
- we benefit from the change
- the organisation, patients and wider community benefit from the change
- we dislike the present status quo
- we trust/respect/like the person or group proposing the change
- we can see the big picture and how the change contributes to it
- we are given support and time to adjust to the changes
- we are not expected to change too many things at the same time
- we understand the reasons for the change
- we believe the change is important
- we believe the change is necessary.

The following principles for success in changing models of care have been adapted from Queensland Health.

- Constant and consistent communication, collaboration and consultation about change
- Support by senior staff, such as practice principles
- Facilitate joint decision making
- Align change with current policy
- Base change on the most appropriate available evidence
- Address specific issues of marginalised and at risk groups such as Aboriginal people and Torres Strait Islanders and culturally and linguistically diverse groups
Section 2. Practice capacity: identifying organisational features affecting system based diabetes care

- Use a quality framework
- Plan an evaluation.

A range of tools and information on change in healthcare, including a checklist for change, is available from the National Health Service Institute of Innovation. A login is required to access this information and this is freely available.

Queensland Health

Victorian Quality Council provide useful resources on this topic

Role of general practice networks

- Identify the gap or problem that requires change
- Educate practice staff on the principles of change
- Engage practice principles in innovative projects
- Identify clinical leaders and support them to implement change in their practices
- Ensure staff are clear about their objectives
- Assist practice staff to develop a plan for change
- Encourage practices to have a communication strategy, eg. whole of practice team meetings.

Communication

Evidence shows that biopsychosocial or patient centred communication styles can make a difference to outcomes of patient care. Communication problems in a care environment can also lead to medicolegal risk. As practices become larger, and staff work together from a range of disciplines, good communication pathways are essential for providing safe, systematic and effective patient care.

Methods of reducing risk to the medical profession in the area of communication include:

- building a patient provider relationship built on trust and honesty
- listening to patients and showing empathy
- minimising interruptions during consultations
- managing unrealistic patient expectations
- communicating with practice staff
- encouraging an environment in the practice where patients feel welcome and staff are skilled in all aspects of patient management
- fostering strong relationships with colleagues and other health professionals
- keeping open channels of communication with other health facilities
- managing complaints in a way that does not leave the patient feeling abandoned or that their concerns were ignored
- ensuring the consent process is robust.

Having good communication in the practices will not only reduce medicolegal risk, it will improve patient outcomes.
Continuous quality improvement

Improvement is defined as an ‘increase in value or in excellence of quality or condition or an addition or change that improves something’. 17

The pursuit of continuous quality improvement means that there is no limit to the level of quality. It is not just about meeting defined standards – even when standards have been met, the quality of the service can still be improved. Even when we are providing excellent care and services, we can still apply the principles of continuous improvement, it is simply a matter of ‘raising the bar’.

Quality improvement is often presented as cyclical as this reinforces the ‘continuous’ process. The following is a model used in the aged care industry. 18

- **Monitoring** is a systematic ongoing process through which information is collected
- **Assessment** determines the type and extent of a problem or opportunity for improvement
- **Action** includes rectifying a problem or improving care and service
- **Follow up** or evaluation is where, after the action has been implemented, a check is done to ensure the action has worked
- **Feedback** stage is often overlooked but this step ensures that all interested parties, from client to staff to external providers are kept in the loop.

The model for improvement

Making improvements to products, systems or services requires change. Although change can seem threatening or overwhelming for busy people, it can be successfully managed if well planned. The model for improvement19 provides a framework for developing, testing and implementing changes. It helps to break down the change effort into small, manageable chunks, which are then tested to ensure things are improving and that no effort is wasted. It is always worth remembering that while every improvement is certainly a change, every change is not an improvement.

The model for improvement consists of two equal parts; the first is the ‘thinking part’ and consists of three fundamental questions to guide improvement work.

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in an improvement?

The second part, the ‘doing part’, is made up of rapid, small ‘plan, do, study, act’ (PDSA) cycles to test and implement change in real work settings. The PDSA cycle provides a framework for testing ideas and assessing the results to determine if the change is an improvement.
What is a PDSA cycle?

A PDSA is a model for testing ideas that you think may create an improvement. It can be used quickly and easily to test ideas for improvement based on existing knowledge, research, feedback, theory, review, audit, or by adapting practical ideas that have been proven to work elsewhere.

The answer (or answers) to the third fundamental question: ‘What changes can we make that will result in an improvement?’ will form the ‘change ideas’ (or objectives) to lead each PDSA. It is important to remember that a project will usually be broken down into a number of PDSA cycles.

Diabetes PDSA activity

The RACGP QA&CPD Program encourages the use of the PDSA cycles by teams and recommends that all staff collaborate by using the following suggestions

- Select the most effective leader
- Look at specific subjects and gather data
- Keep it simple
- Brainstorm topics to outline priorities
- Analyze strengths and weaknesses

Standards Criterion 3.1.1
Our practice supports quality improvement activities

Role of general practice networks

- Keep PDSA activities simple and very specific
- Cycles should happen quickly – think in terms of a week not a month!
- There is no wrong answer, if you find something that works – use it!
- Copy and adapt other people’s ideas if you think they might be useful.

One of the most effective quality improvement programs to be introduced into general practice has been the Australian Primary Care Collaboratives.
The Australian Primary Care Collaborative

The Australian Primary Care Collaborative Program provides a structure that demonstrates that a planned approach leads to improved patient health outcomes. A collaborative is an improvement method that relies on the distribution and adaptation of existing knowledge to multiple settings to achieve a common aim.

The objective of the Australian Primary Care Collaborative Program is to encourage and support Australian general practices in delivering rapid, measurable, systematic and sustainable improvements in the care they provide to patients. This is achieved through the sound understanding and effective application of quality improvement methods and skills.

The benefits to the practice have been identified as:

- improved health outcomes for patients with chronic diseases
- doctors running on time
- accurate and up-to-date patient registers
- improved team based culture within the practice
- doctors being available at short notice
- patients receiving best standard of care possible
- improved GP and staff morale.

Policy

The temptation with the requirement to produce policies at a practice level is simply to meet accreditation requirements and nothing more. However, practice policies can be instrumental in changing the way practices deliver care. Practice policy that will add benefit to the patient journey and practice efficiencies include:

- writing for all staff, position descriptions that define the role and the education requirements for the staff member, as well as a description of training and the opportunities for continuing professional development
- having agreed practice billing arrangements for diabetes care
- documenting clinical and referral pathways
- having processes for management of referral database
- having data cleansing protocols
- producing reports – what data is to be collected and for what purpose
- having agreed clinical guidelines (decision support)
- having a schedule and format of regular practice meetings
- having a triage tool and protocol
- having reminder and recall systems (clinical information systems)
- developing chronic disease registries
- having appointment scheduling – separate acute from planned care (Lean Thinking principles)
- Managing phone calls to reduce interruptions and categorising phone messages to ensure that urgent is actioned first
- Practice equipment, supplies and storage – is it where it is supposed to be?

By having clearly written policies that outline roles and responsibilities, all staff are able to appreciate their role in delivering high quality integrated care. Patients are given consistent advice from clinicians and billing is consistent and systematic to maximise available funding.
Conclusion
That practices are unique is one of the attractions of working in general practice but this can create challenges too. Delivering high quality care in a complex, regulated, business environment by individual clinicians from a variety of professions to patients with complex needs such as diabetes, requires planning, education, clinical expertise and strong leadership.

Useful websites

Assessment of Chronic Illness Care
www.improvingchroniccare.org/index.php?p=The_MacColl_Institute&s=93

Australian Primary Care Collaboratives
www.apcc.org.au

Australian Quality and Safety Commission
www.safetyandquality.gov.au

Diabetes PDSA cycle
www.racgp.org.au/guidelines/diabetes

Improvement Foundation
www.improve.org.au

Institute for Healthcare Improvement
www.ihi.org/IHI

National Health Service Institute of Innovation
www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/facilitation_guides.html

Quality Framework
www.racgp.org.au/qualityframework

Queensland Health

Small group learning: Module 1. Using a team approach to achieve high quality diabetes care
(needs to be uploaded to website)

The RACGP QA&CPD Program
www.racgp.org.au/qacpd/20082010triennium/programhandbook

The RACGP. Position Statement on general practitioners and their teams
www.racgp.org.au/policy/GPs_and_their_teams.pdf

The team approach

Working in Partnership Program
www.wipp.nhs.uk/tools_gpn/tools6_teamwork.php

Victorian Quality Council
References

6. ibid.
7. UNSW Teamwork Research Study p 8. Available at www.cphce.unsw.edu.au/CPHCEWeb. nsf/resources/Powerpoints/$file/An+intervention+to+enhance+teamwork+April+2009. ppt#385,6,Our previous research.
11. ibid.
12. ibid.
18. Aged Care Standards and Accreditation Agency. Available at www.accreditation.org.au
Introduction
An appropriate care delivery system improves patients' use of services and improves patient outcomes, particularly for diabetes. Australian general practice has traditionally been based on an acute model of health service delivery, where the patient enters the clinic with an acute problem, which is then treated. This system has been supported by the dominance of fee-for-service financing arrangements. The ability of practices to deliver care in any other format is determined by their capacity and it is likely that some will be able to do this more easily than others.

Planned care
General practice provides ‘initial, continuing, comprehensive and co-ordinated medical care’. To support this, the central message of the chronic illness model determines that best practice chronic disease care, including diabetes care, requires a shift in focus to planned care. Planned care means an ‘approach to care’ for patients with a pre-existing diagnosis.

As well as clinical management, planned care includes patient education and self management support. For patients, planned care will increase their knowledge of, and participation in their care and for the practice it will assist in service delivery. Benefits of planned care, including General Practice Management Plans (GPMPs) include the following:

- A coordination of services and care
- A proactive approach to managing healthcare requirements
- It encourages patient involvement
- It provides continuity across patient conditions, healthcare providers and settings
- It supports teamwork
- It leads to improved patient outcomes.

A GPMP is a tool for providing planned care and does not replace the process involved in negotiating with the patient about their goals.

The chronic care model provides a video highlighting this issue which may be useful for staff.

Diabetes Australia Victoria also provides resources on planned care to general practice including:

- Sample hypoglycaemia policy for general practice
- Proposed care pathway for patients
- Practice plan for GPMPs and TCA
- Annual Cycle of Care plan review
- GPMP and TCA review of plan

Section 3. Designing delivery systems for diabetes care

Putting diabetes guidelines into practice: systems for care

Diabetes Australia Victoria also provides resources on planned care to general practice including:

- Sample hypoglycaemia policy for general practice
- Proposed care pathway for patients
- Practice plan for GPMPs and TCA
- Annual Cycle of Care plan review
- GPMP and TCA review of plan
Section 3. Designing delivery systems for diabetes care

Standards 1.5 Criterion 1.5.1
Our practice has strategies that encourage continuity of comprehensive care

Models of care
Models of care for patients with diabetes managed in the general practice setting require a planned approach that utilises the skills of a multidisciplinary team and the active participation of the patient. There is no ‘one size fits all’ model that can be recommended to practices – this is because every practice is unique, every practice population is different, and patients will have different individual needs and preferences. Discussion with key decision makers in the practice about the key elements of diabetes service delivery models, the dissemination of the clinical guidelines and ongoing support for implementing models is the recommended approach.

General practice networks can play a significant leadership role in providing advice and support to practices designing appropriate planned delivery systems for diabetes care. The design of the delivery system in individual practices will inform the development of a specific model of care for that practice. Designing a model of care will include consideration of factors, including the following:

- divisions services available
- appointment systems
- protected time
- space and physical layout
- practice staff roles
- practice nurse roles
- training and continuing professional development
- financial sustainability.

The purpose of this section is to provide information on these factors as well as guidance for discussion in individual practices.

Small group learning: Module 3. Practice nurse models and self management support

Nurse led clinics general practice chronic disease management, is a resource that practices may wish to consider for the introduction of a nurse led model of care
General practice network services

General practice networks can also provide clinical or care coordination services that assist practices to provide best practice diabetes care, these include:

- clinical services such as allied health services (eg. employed or contracted through the More Allied Health Services Program) and the coordination of specialist services
- coordination and assessment services that could offer:
  - patient assessment and care planning
  - facilitate appointment bookings with providers external to the referring practice
  - facilitate follow up reminders and feedback to the referring GP
- information management and analysis services such as the installation of, and training in the use of, tools that help practices identify patients with diabetes and prioritise those at risk of adverse events.

Appointment systems

Almost every practice has a general system to coordinate patient appointments. For diabetes care involving a multidisciplinary team, separate appointment systems for all members of the care team, including onsite nurses and allied health staff, need to be in place. Furthermore, those managing appointment systems (usually practice managers and reception staff) need to be able to coordinate appointment systems, eg. a patient returning for a diabetes care plan review may need to be booked in to see a practice nurse for 30 minutes, followed by a GP for 15 minutes, followed by an onsite podiatrist for 20 minutes. This requires a coordinated system.

Standard 1.1 Criterion 1.1.1

Our practice has a flexible system that enables us to accommodate patients with urgent, nonurgent, complex, planned chronic care and preventive health needs

Protected time

Ideal chronic disease care requires protected time for nurses and administrative staff to establish and maintain planned care delivery systems. Protected time means ensuring that specific blocks of time are reserved and given priority for chronic disease care. Activities performed during this time could include:

- practice nurses managing the diabetes register
- reception/administrative staff reminding patients of their appointments
- practice nurses running a diabetes clinic or seeing patients to review their care plans in a team based approach with the GP and allied health staff
- writing a practice policy on the management of patients with diabetes including evidence based clinical policy, referral pathways, and financial procedures.

Space and physical layout

Practices need to ensure there are dedicated consulting rooms for practitioners other than GPs so that multidisciplinary care can be delivered in spaces that are appropriately private for patients. These can include consulting rooms for practice nurses and allied health staff.

The flow of patients receiving multidisciplinary care also needs to be considered, eg. if the practice nurse is to see patients in order to collect patient information or deliver self management care before (or after) the patient sees the GP, a separate waiting room area could be considered.

-Rebirth of a clinic may assist practices when planning to restructure or extend their premises-
Practice staff roles

The roles and responsibilities for the design and maintenance of the delivery system need to be shared among members of the multidisciplinary team. The roles of GPs and staff in this will vary widely according to differences in staff mix, staff competencies and the culture of the practice.

Key roles for GPs may include:

- leadership within the practice regarding the importance of best practice diabetes care and the establishment of appropriate delivery systems
- identifying patients for risk assessment
- conducting assessments of the risk factors and readiness to change
- monitoring clinical outcomes and flagging patient recalls
- clinical care.

Key roles for practice managers may include:

- establishing, managing and implementing systems such as disease registers and recall/reminder systems
- ensuring the space available and physical layout of the practice are adequate
- leading the coordination of all systems, including appointment systems and systems for financial sustainability
- creating business cases for, and recruiting additional staff to build the multidisciplinary team.

Key roles for diabetes educators may include:

- establishing systems that ensure the patient’s knowledge and skills are built upon and regularly consolidated regarding issues such as their eating plan, physical activity, self monitoring, medication use, foot care
- educating practice staff.

Further information on the role of diabetes educators can be obtained from The Australian Diabetes Educators Association.

Standard 3.2 Criterion 3.2.1

All GPs in our practice are appropriately qualified and trained, have current registration and participate in continuing professional development.

Key roles for practice managers may include:

- establishing, managing and implementing systems such as disease registers and recall/reminder systems
- ensuring the space available and physical layout of the practice are adequate
- leading the coordination of all systems, including appointment systems and systems for financial sustainability
- creating business cases for, and recruiting additional staff to build the multidisciplinary team.
Section 3. Designing delivery systems for diabetes care

Standard 3.2 Criterion 3.2.2
All our staff involved in clinical care are appropriately trained for their role in our practice

Key roles for administrative staff may include:
• maintaining recall systems
• data cleansing
• establishing links with other healthcare providers and maintaining current contact details
• assisting in the organisation of care conferencing and care planning
• reviewing appointment systems
• booking/coordinating patient appointments including reminders
• sourcing alternative finance, eg. claiming the right Medicare Benefits Scheme (MBS) item numbers, collecting patient co-payments.

Putting diabetes guidelines into practice: systems for care

Standard 3.2 Criterion 3.2.3
Our administrative staff participate in training

Practice nurses
Since 2001 practice nurses have become an important element in general practice with MBS support to help increase their employment.

Key roles for practice nurses are not restricted to, but may include:
• establishing, managing and implementing systems such as disease registers and recall/reminder systems
• contributing to, reviewing and monitoring patient adherence to care plans
• encouraging patients to self manage their disease
• clinical care
• establishing and managing diabetes clinics
• education staff on diabetes care and systems changes
• leadership roles
• data management, data cleansing and establishing reporting criteria.

The RACGP’s The team approach to diabetes in general practice: a guide for practice nurses provides further information on the practice nurse role in diabetes management

The Australian General Practice Network promotes business models for the employment of practice nurses

Postgraduate clinical education for practice nurses in management of diabetes is available from numerous providers; a list is available from the Australian Diabetes Educators Association.

Small group learning. Module 1. Using a team approach to achieve high quality diabetes care

e-learning training package to support Medicare Item 10997

Organisations external to the practice, eg. community health services such as Aboriginal community controlled health services, may also be able to give important input to the design of delivery systems and the division can play a role in surveying managers and staff within these organisations.

All clinical staff employed in and contracted to general practice should practice within their scope and be aware of their roles and responsibilities as articulated in their position description.
Standard 3.2 Criterion 3.2.2
All our staff involved in clinical care are appropriately trained for their role in our practice

Financial sustainability
Models of care need to be appropriately financed in order to be sustained. The vast majority of general practices are private businesses that require a return on investment in order to survive. Financing options for proactive diabetes care which suit the practice and the patient may include:

- MBS item numbers
- incentive payments for quality (Practice Incentive Program [PIP] and Service Incentive Payments [SIP])
- other funded programs available that are external to the practice, such as community health service programs or services, or division led services
- patient co-payments
- private health insurance rebates
- grants and sponsorship arrangements.

The MBS is still currently the dominant method for funding diabetes care in general practice and the financial viability of a chronic disease clinic will be largely dependent on the practice ensuring that an appropriate billing model is in place and that it is being implemented and monitored.

Role of general practice networks
- Ensure decision makers within practices are aware of the ways in which diabetes care models can be financed
- Reception staff are familiar with the item numbers relating to diabetes care
- There is a practice policy on billing
- There are agreed processes around bulk billing and gap payments
- There is a system to monitor the financial viability of the provision of diabetes care
- Practices have a business plan
- Succession planning is in place.

Without this knowledge and follow up, practices may be penalised by their lack of systems in accessing MBS funding.

The Australian Practice Nurses Association and Medicare Australia provide online MBS education. MBS Online provides the criteria relating to all item numbers. Appendix 1 outlines commonly used Medicare item numbers for diabetes care.
Conclusion

The opportunities for service delivery are many and varied according to the capacity of the individual practice. By assessing the capacity of each practice, divisions can assist them to redesign care according to their capabilities.

Useful websites

North East Valley Division of General Practice
www.nevdgp.org.au

Australian Association of Practice Managers

Australian Diabetes Educators Association
www.adea.com.au

Australian Practice Nurses Association
www.apna.asn.au

Brainbox Software Training

Diabetes Australia
www.diabetesaustralia.com.au

e-learning Training Package to support Medicare Item 10997
www.3lp.rcna.org.au/10997

Integrated Chronic Disease Management Online Clearinghouse

Medicare Australia

MBS Online

National Heart Foundation – toolkit for general practice
www.heartfoundation.org.au/Professional_Information/General_Practice/Toolkit/Pages/default.aspx

North East Valley Division of General Practice
www.nevdgp.org.au

Rebirth of a clinic
www.racgp.org.au/rebirthofaclinic

The RACGP. The team approach to diabetes in general practice: a guide for practice nurses
www.racgp.org.au/guidelines/diabetes
References


Introduction
Clinical information systems are used to organise patient, population and provider data. They are able to describe the health of a defined population and can be used to analyse data in order to provide improved quality patient care. Clinical information systems can be used to record individual patient information as well as to collate information to examine the health of populations, including those within an individual general practice or division. Furthermore, this data can be aggregated to give a broader perspective on groups or populations.

This section examines some of the aspects of clinical information systems which contribute to effective and improved management of chronic illnesses such as diabetes.

Information
Data enables practices to identify problems, prioritise quality improvement, and evaluate whether change and improvement have occurred. Collecting and analysing data is central to the function and quality improvement in any health service, including general practice. Data management helps in understanding and improving health services by giving us the tools to describe what is going on and to compare performance, either against known standards or against previous performance.

Data has been described as the basic raw material captured at the source (eg. HbA1c levels, blood pressures, ages, names) and can be stored electronically or be paper based.

Information is data endowed with relevance and purpose – data that is collected, integrated and presented.

Information is interpreted to produce knowledge.
Having knowledge allows a decision to be made and this can lead to Action.

Information lifecycle
The process of managing information is continual. Unless information is going to be used, there is little point in collecting it. Conversely, if we are able to collect information, why would we not use it? The Department of Human Services Victoria describes an information lifecycle in stages:

- **Design** – create parameters of information, eg. responsibility, documentation, quality, access, disposal
- **Capture/collect** – involves systematic acquisition of information. Consider how to capture, collect, acquire, create, generate, edit, and code classify information: you can capture information once, but use it many times
- **Distribute** – consider how the end user will receive the information
- **Use** – how will the data be converted to information that can be used
- **Retain/dispose** – how to preserve, evaluate, archive, discard or retain the information.

Having decided what information to collect, a decision needs to be made on what to do with it.
Information management

Traditionally, information management described activities related to paper based documents, however, now it generally refers to all types of information. This may include technology based activities, data warehousing, preserving the quality and security of information, and the development of infrastructure. Information management covers a range of policies, procedures and decisions relating to the definition, capture, storage, access, distribution and exploitation of information. Information can be used for a wide range of purposes in primary care, including:

- providing consumers with information about health
- planning and monitoring
- performance management
- administrative and financial management (eg. claims for diabetes SIP).

An example of an information management system is the capture of patients with diabetes based on a diagnosis which has been recorded in agreed terms (eg. as type 2 diabetes) to create a patient register.

Patient registers

Patient registers are searchable lists of patients within a demographic risk group, or with a particular condition, or with specific risk factors for a disease. Specific types of registers include:

- age and gender register
- at risk register
- prevention register
- disease register.

They can assist practices to:

- record services rendered to specific groups of patients which can be planned in advance (eg. the diabetes annual Cycle of Care services)
- proactively plan appointments (eg. by prompting recall letters)
- maintain a recall system or link to a state or national patient recall system (eg. the Australian Childhood Immunisation Register, or cervical screening registries)
- systematically target patients in particular groups
- flag when a preventive activity is offered and completed
- identify those overdue for a preventive activity
- record test results
- track clinical outcomes.

Patient registers are used as a reference for the delivery of proactive, planned care to a specific group of patients, in this case those with diabetes. Disease registers can be:

- electronic
- paper based, and
- hybrid (sometimes practices use both these methods).

Electronic data management methods are embedded into most medical software programs. Their advantage is that they offer additional efficiencies through enhanced search functions. It is not uncommon for practices to use both electronic and paper based methods. Participation in diabetes registers by GPs is more likely...

The RACGP, Putting prevention into practice: guidelines for the implementation of prevention in the general practice setting (the ‘green book’) highlights questions that divisions may wish to consider when assisting practices to set up a register.
Recall and reminder systems

The Flinders University, Building capacity in general practices report has determined that information management systems that support clinical care, including recall and reminder systems, have been associated with quality of care. The terms recall and reminder are often used interchangeably however they have different functions. The Threats to Australian Patients Study has identified that 23% of system errors in general practice and other healthcare settings were related to recall and reminder systems.

Recall systems

A recall is used as a follow up to a clinically significant result of a medical investigation, if required. Generally every practice will have a recall system, mainly used to recall patients to the practice in order to receive test results. It implies a higher level of urgency than a ‘reminder’, which tends to be more a preventive action. Recalls related to diabetes care should be driven by protocols embedded into policy and procedure manuals so that all practitioners and staff are clear about when a recall is warranted. A diabetes recall system needs to be linked to the clinic’s diabetes disease register, this involves monitoring clinical indicators.

Reminder systems

Reminder systems are used when it is recommended that a patient undergo a routine check or examination, or if a patient requires more structured care. This requires both a clinical decision on the appropriateness of the reminder, and an administrative action to notify the patient.

Reminder systems for diabetes care are particularly important in relation to the Annual Cycle of Care, which requires a series of appointments in each 12 month cycle. It is good practice for clinics to remind patients to attend these appointments. Divisions should remind practices to pay particular attention to patients for whom optimal glycaemic control is difficult to achieve – these patients need frequent reminders to attend appointments. Practices may also wish to consider the use of reminders for patients to self manage their conditions. Automated systems using text messages or emails can be used for this purpose.

Aside from the focus on clinical care, practices should consider establishing reminder and recall systems to satisfy practice accreditation and PIP criteria.

Standards Criterion 1.3.1

Our practice provides health promotion and illness prevention services that are based on best available evidence

Role of general practice networks

- Assist practices to determine their information gaps
- Remind practices to enter data accurately and in the correct format
- Assist practices to set achievable goals
- Assist practices to create a diabetes patient register
- Help practices to determine the parameters of information (eg. to which patients to send reminders)
- Decide on content and format of letters and provide examples if possible
- Enquire about quality improvement activities regarding recall and reminders
- Assist with understanding clinical software systems
- Assist practices in designing PDSA cycles and clinical audits to monitor quality improvement and to better establish goals and targets for improvement (and gain continuing professional development points for the practice team).
Clinical audit tools

Having established a method of creating accurate data in medical software, practices can use this data to identify the gaps that exist in the patient care they provide. Good data is data that accurately, reliably and consistently reflects what is really happening in the practice population. Without accurate data, a practice simply cannot determine the impact of change initiatives or demonstrate success. The ability to do this can be enhanced by using a clinical audit tool.

A clinical audit tool reads the clinical database and creates aggregated (collected into one format) data that is easy to read, easy to analyse, and easy to action. This audit software sits on top of the medical desktop system and extracts data from the patient medical record. Examples of audit tools include The Canning Tool and the PCS Clinical Audit Tool™ (CAT). These tools allow practices to quickly and effortlessly look at ‘snapshots’ of data so they can:

- assess current performance and identify performance gaps
- prioritise problems and improvement projects
- establish goals and targets for improvement
- establish a clear case for the need of improvement – the evidence.

Diabetes Australia has produced an evidence based resource to guide practices through step by step instructions for using CAT for effective prevention and management of diabetes.

This resource demonstrates how CAT can extract data in order to obtain valuable practice information such as:

- patients at high risk of type 2 diabetes
- number (and names) of patients with diabetes in the practice
- patients who are at target levels for HbA1c, blood pressure and cholesterol, or diabetes SIP items remaining

CAT recipes are available for identifying patients in the following categories:

- HbA1c not recorded in the last 12 months
- outstanding Diabetes Cycle of Care
- cardiovascular disease, no blood pressure recorded
- smoking status not recorded
- undiagnosed patients with significant risk factors for chronic disease

Conclusion

As more emphasis is placed on quality of care for the increasing number of patients with diabetes, methods of managing data and information need to be considered by general practices. General practice networks are well placed to deliver resources, provide education, and include information technology and information management in regular continuing professional development programs.
Useful websites

CAT recipes

PCS Clinical Audit Tool™
www.clinicalaudit.com.au

The Canning Tool

The Diabetes prevention and management in general practice: using the Pen Computer Systems Clinical Audit Tool

The RACGP. Putting prevention into practice: guidelines for the implementation of prevention in the general practice setting (the ‘green book’)  

References

2. ibid., p. 7.
Section 5. Decision support for diabetes management

Introduction

Clinical management guidelines are available to enhance a practice’s ability to manage diabetes. However, there remains a significant gap between what is described as best practice and the care delivered in general practice. This section will focus on the resources available to assist GPs and other practice staff to deliver care at the standard accepted as best practice for diabetes. Understanding the range of clinical practice guidelines available gives general practice network staff the opportunity to develop ideas and resources to increase their clinical knowledge in the area of diabetes. Evidence based practice is the cornerstone of good clinical care and this section describes the resources available to help clinical staff implement guidelines into daily practice at a consultation level.

Role of general practice networks

- Disseminate and promote guidelines and information as they are reviewed/updated
- Provide easy access to guidelines for clinical staff (eg. electronic desktop shortcuts)
- Encourage practice policies that are based on standard and accepted clinical practice guidelines
- Encourage discussion at practice meetings
- Assist practices to conduct audits based on evidence
- Promote guidelines at education events
- Implement reminder systems based on clinical practice guidelines (eg. HbA1c test every 6 months rather than every year)
- Increase awareness of clinical practice guidelines for all staff (eg. nurses, allied health workers, practice manager)
- Incorporate the promotion of clinical practice guidelines into division education events.

The gaps in care

Best practice care to any patient is determined by rigorous scientific research and consensus. For a range of reasons the care that is delivered to patients in reality, is often not guided by the best evidence currently available to clinicians. Studies have suggested that 30–40% of patients do not receive care that is in line with current scientific evidence, and in fact 20% or more of the care provided is harmful.¹

There is evidence to suggest that on a population level people with diabetes are not receiving adequate care. A National Diabetes Audit performed in the United Kingdom 2004–2005² determined that of people with diabetes:

- 81% (predicted to have diabetes) have it recorded on a practice based registry
- 58% achieved an HbA1c target
- 42% have recorded HbA1c readings over the target
- 22% achieved the lower HbA1c target of <6.5% recommended for those at higher risk of arterial disease
- 24% achieved the recommended blood pressure target
- 68% achieved the recommended cholesterol target.
These figures show that a high percentage of people with diabetes have poor glucose control. Australian Bureau of Statistics data shows that for people with diabetes:

- only 77% had discussed self management of their diabetes with their GP or specialist in the preceding 12 months
- 75% were following a changed eating pattern due to their diabetes
- 27% reported that they had exercised most days in the preceding 2 weeks
- 17% reported that they were losing weight
- 28% had not had a foot check in the preceding 12 months.

In 2003 the National Institute of Clinical Studies reported that in the period 1999–2000, 75% of people with diabetes were not having their HbA1c tested as frequently as recommended by best practice. Further studies report between 46% and 80.4% of patients with type 2 diabetes were being monitored at least every 6 months. This is supported by an Australian study comparing division diabetes registers, which concluded that a gap exists between optimal care and current quality of care provided by general practice.

Clearly the rate of monitoring is less then optimal and general practice network chronic disease programs can contribute to ensuring that this figure improves.

Using a clinical audit tool, along with assistance from a network, to determine level of care in a practice and then undertake continuous quality improvement cycles will improve patient care. Continuing professional development points can be accessed for medical staff and nursing staff when a clinical audit is undertaken.

### Evidence based practice

As cited in the RACGP’s Summary Statement, evidence based medicine is defined as: ‘the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients’.

It is recommended by the RACGP that wherever possible, clinical support be incorporated into daily practice through the availability of clinical guidelines. It is also recommended that clinical guidelines or prompts be integrated into information systems in general practice. Such integration will decrease variability in clinical practice and promote a collaborative approach to problem solving by practitioner and patient.

### Standards Criterion 1.4.1

Our practice ensures that our common approaches to common and serious conditions are consistent with best available evidence

### Clinical practice guidelines

In order to be able to provide evidence based care, practitioners will use a variety of resources, including clinical practice guidelines. Guidelines are sets of ‘non mandatory rules, principles or recommendations for procedures or practices in a particular field.’ Clinical practice guidelines are systematically developed and provide evidence based information to clinicians. The National Health and Medical Research Council is Australia’s peak body for supporting health and medical research, and for developing health advice for the Australian community, health professionals and governments. By using guidelines developed from evidence based research clinicians can make decisions on appropriate healthcare for specific circumstances. Guidelines are available for many areas of clinical practice, including the management of diabetes.
### Barriers to practice staff use of clinical practice guidelines

Although clinical practice guidelines are recommended and freely available there are reasons staff do not use them. These include:

- lack of awareness that guidelines exist
- lack of agreement with the guidelines
- time constraints
- lack of reminder systems
- insufficient staff or support
- poor reimbursement
- increased practice costs.

Another identified reason is that difficulties exist for providers due to attitudes towards diabetes itself, the complexity of its management, the perceived lack of support from society, and the health system.

General practice staff are able to identify reasons for which GPs and other clinical staff are not using guidelines for the prevention and management of diabetes and its complications. Interventions can then be implemented in order to change the behaviour of clinicians.

### Practice Incentives Program eHealth Incentive

One incentive to using clinical practice guidelines is the Practice Incentives Program (PIP) eHealth Incentive. The PIP eHealth Incentive commenced in August 2009. The incentive encourages the use of electronic health systems in eligible (accredited) practices. This incentive aims to encourage general practices to keep up-to-date with the latest developments in e-health – including the availability of management guidelines electronically. Payments are made by Medicare Australia to eligible practices as part of each quarterly PIP payment. The PIP eHealth Incentive has three components and practices must meet the requirements of each of the components to qualify for payments through this incentive. Payments are capped at $12,500 per practice per quarter, up to a maximum of $50,000 per year. One of the requirements for the e-health incentive payment is that practices provide practitioners with access to a range of key electronic clinical resources.

### Guidelines and education relevant to diabetes

A list of guidelines that meet the criteria are available on the RACGP website and are listed below.

**Diabetes Management in General Practice Guidelines for Type 2 Diabetes**

**National Evidence Based Guidelines for the Management of Type 2 Diabetes Mellitus**

A series of documents, first published in 2001 and updated in 2009, that present evidence based guidelines for the prevention, diagnosis and management of type 2 diabetes. They comprise:

- Part 1. The processes and methods
- Part 2. Primary prevention (updated December 2009)
- Part 3. Case detection and diagnosis of type 2 diabetes (updated June 2009)
- Part 4. Blood pressure and control in type 2 diabetes
- Part 5. Prevention and detection of macrovascular disease in type 2 diabetes
- Part 6. Detection and prevention of foot problems in type 2 diabetes
- Part 7. Lipid control in type 2 diabetes
Section 5. Decision support for diabetes management

Guidelines for diabetes management in general practice

Guidelines for diabetes prevention
- Helping your patients to QUIT smoking (gplearning)
- Helping your patients to be non smokers (gplearning)

Dietary guidelines for all Australians

Dietary guidelines for adults
- Nutrition for general practice (gplearning)
### Dietary guidelines for children and adolescents


### Obesity and overweight in adults

- Clinical practice guidelines for management of overweight and obesity in adults
- Managing weight GP case study ([gplearning](#))
- Snapshots on nutrition ([gplearning](#))
- Australian guidelines to reduce health risks from drinking alcohol
- Alcohol misuse: reducing the risks to your patients' health ([gplearning](#))
- Alcohol misuse: helping your patients to reduce their alcohol intake ([gplearning](#))
- Alcohol and drug multiple choice questions V2 ([gplearning](#))

### National physical activity recommendations

- National physical activity recommendations for 5–12 year olds
- National physical activity recommendations for 12–18 year olds
- National physical activity recommendations for adults
- National physical activity recommendations for older Australians
- Physical activity in general practice ([gplearning](#))
- Physical activity multiple choice questions ([gplearning](#))
Conclusion

Although clinicians aim to provide the best care to patients, for a number of reasons this is sometimes difficult. General practice networks can assist practices through ongoing contact, raising awareness, providing access to existing guidelines, and promoting and providing educational opportunities.

Useful websites

Australian guidelines to reduce health risks from drinking alcohol

Continuing professional development
www.racgp.org.au/membership/qacpd

Clinical management guidelines
www.racgp.org.au/guidelines/diabetes

Clinical Audit Tool
www.clinicalaudit.com.au

Diabetes management in general practice guidelines for type 2 diabetes
www.racgp.org.au/guidelines/diabetes

Dietary guidelines for all Australians

Dietary guidelines for adults

Dietary guidelines for children and adolescents

Kidney Health Australia

Kinect Australia
www.vicfit.com.au/content/Public/Homepage.aspx

National evidence based guidelines for the management of type 2 diabetes mellitus

National Prescribing Service
www.nps.org.au

National physical activity recommendations for 5–12 year olds

National physical activity recommendations for 12–18 year olds

National physical activity recommendations for adults
www.health.gov.au/internet/main/publishing.nsf/Content/phd-physical-activity-
Section 5. Decision support for diabetes management

National physical activity recommendations for older Australians


National Health and Medical Research Council


National Health and Medical Research Foundation

www.nhmrc.gov.au

National Institute of Clinical Studies


Nursing staff


Practice Incentive Payment (PIP) e-Health Incentive


Smoking cessation guidelines for Australian general practice

www.racgp.org.au/guidelines/smokingcessation

The Royal Australian College of General Practitioners

www.racgp.org.au/pip

References
8. The RACGP. Summary Statement on evidence based medicine, op. cit.
Introduction

Self management support is based on helping patients to be actively involved in their own care. It involves patient centred care, which is underpinned by the patient being at the centre of their own healthcare, and being empowered to adopt self management strategies. Self management support will enhance the patient to manage their own goals and will involve working with them to achieve what is important to their health within an evidence based approach.

Currently it is difficult to do this in general practice as most GPs treat the chronically ill with the same model of delivery they use for acutely ill patients – effective support of patients with ongoing illness requires a shift in paradigm.

Role of general practice networks

• Provide self management support education to all members of the general practice team (eg. motivational interviewing, stages of change, problem identification, negotiation and conflict resolution)
• Ensure that elements of self management are embedded into all continuing professional development sessions
• Assist practices with changes to systems (eg. appointments, billing, and staffing systems)
• Provide opportunities for staff to network with community groups that support patient self management (eg. Diabetes Australia)
• Ensure that practices are familiar with Enhanced Primary Care item numbers to support patient centred care.

Self management

Self management is often more important to health outcomes than the medical care received from clinical staff.

Chronic disease self management programs and self management support are key aspects of optimal chronic disease care and are effective if implemented correctly. Evidence shows that self management support interventions are associated with improvements in HbA1c as well patient satisfaction and health service use. To optimise peoples capacity to self manage throughout the continuum of chronic disease prevention and care, the following principles, constituting the aims of patient self management, need to be achieved.

• Patient understanding the nature of their illness
• Active patient participation in decision making
• Patient knowledge of treatment options and ability to make informed choices
• Patient ability to follow a treatment plan that has been negotiated and agreed upon
• Patient ability to monitor signs and symptoms of change in their condition and be able to respond to changes
• Patient ability to manage the impact of the disease on their physical, emotional, and social life
• Patient ability to adopt a lifestyle that reduces risk and promotes health
• Patient confidence in their ability to use support services.
Meeting the above needs requires a culture shift in which these principles are firmly actioned in all levels of the health system by all healthcare providers, including those in general practice.

In self management, the role of the health professional is to move beyond educating and informing in order to achieve sustained behavioural change with compliance that results in improved patient care outcomes.

A Flinders University resource for primary care health professionals, *Capabilities for supporting prevention and chronic condition self management* suggests that all graduate health professionals will be competent in supporting patients to self manage their chronic conditions, will work in teams, and will keep patients and their carers central to their care.

**The shift to self management**

Patients frequently present with acute symptoms, related to chronic conditions, that may well be prevented with properly developed care plans and actions. Care for patients with chronic conditions is different to the care for patients with episodic illnesses. Patients with chronic illnesses require providers who understand these differences, and are able to provide care that is coordinated across time, and centred on the patient’s needs, values, and goals.

The World Health Organization has identified the abilities required to support self management as a core competency for all staff working with chronically ill patients. In order to support self management, it is recommended that practices consider the following measures:

**Partnering with patients**

Evidence supports the shift toward equality of power and responsibility between patients and providers in an equal relationship and involves the patient in all aspects of healthcare decision making. With a successful self management plan, patients feel understood, empowered, valued and involved in their disease management.

Teams need to provide patients with information about treatment, goals and expected outcomes, and patients need to have knowledge and information about their disease in order to take an active part in their own care.

The following organisations provide resources for patients on diabetes:

- Lift for Life
- International Diabetes Institute Fact Sheets for patients
- Diabetes Australia in your state or territory
- National Prescribing Service consumer information

**Partnering with healthcare providers**

Health outcomes improve when healthcare providers within and across professional disciplines collaborate. Healthcare providers include allied health professionals such as dieticians, physiotherapists and occupational therapists, diabetes educators, pharmacists, medical specialists and community service providers.

Competent collaboration with other providers requires skills that promote cooperation, communication and integration of care. All primary healthcare providers must be capable of creating and maintaining partnerships with all parties involved in a patient’s care. They need to be able to demonstrate mutual respect, trust, support and appreciation of the other’s discipline and unique contribution.

To be successful, all primary healthcare sector stakeholders need to support change to successful self management models, and GPs cannot implement change without the participation and collaboration of other health service providers, general practice...
Partnering with communities

Healthcare for patients with chronic conditions is improved when there are links between healthcare organisations, patients and their families, and community resources. Health professionals can provide patients with information they need to be full and equal partners in healthcare decisions, and be able to consider all alternatives and make informed decisions.

Community partners can be employers, academic institutions, society groups, media representatives, patient advocacy groups, and specific organisations (eg. Diabetes Australia, National Aboriginal Health Organisation). Community organisations can play a vital role in health partnerships as they have a wealth of knowledge and experience of particular chronic conditions, and are in a position to provide evidence based care, advice, support and information to patients and other health professionals.

Developing partnership competencies within the community will promote the development and maintenance of patient referral pathways. Working collaboratively with the wider community will help increase patient engagement, improve continuity of care, and overcome fragmentation of systems.

Conclusion

Self management involves not only a one-on-one relationship between the clinician and patient, it also involves a systems approach, a patient centred care mentality, an education component, and a change of focus in the health system so that patients are included in decision making. General practice networks can be instrumental in facilitating all these at a regional and national level.

Useful websites

Australian Diabetes Educators Association – find a diabetes educator

Australian Podiatry Council – find a podiatrist
[www.findapodiatrist.org](http://www.findapodiatrist.org)

BetterHealth Channel

Capabilities for supporting prevention and chronic condition self management

Diabetes Centre

Diabetes Queensland fact sheets for patients
[www.diabetesqld.org.au](http://www.diabetesqld.org.au)

Dietitian’s Association of Australia – find an accredited practising dietician
[www.dia.asn.au](http://www.dia.asn.au)

Enhanced Primary Care – Department of Health and Ageing

Exercise and Sports Science Australia – find an exercise physiologist
Section 6. General practice networks supporting self-management

Health Provider Registry
www.healthproviders.com.au

Health Coaching Australia
www.healthcoachingaustralia.com

HealthInsite
www.healthinsite.gov.au

Human Services Finder
www.hsfinder.sa.gov.au

International Diabetes Institute Fact Sheets for patients

Lift for Life
www.liftforlife.com.au

National Prescribing Service Consumer Information
http://nps.funnelback.com/search/search.cgi?collection=nps&query=diabetes&form=entireset&meta_A_phrase_sand=consumers&id=consumers

Medicare Benefits Schedule (MBS Online)

NPS Medicines Name Finder
www.nps.org.au/health_professionals/tools/medicine_name_finder

Optometrists Association of Australia – find an optometrist
www.optometrists.asn.au

The Flinders Program™ Chronic Condition Self-Management Workshops
http://som.flinders.edu.au/FUSA/CCTU/workshops.htm

World Health Organization
www.who.int/chp/knowledge/publications/workforce_report.pdf

References
4. ibid.
7. ibid.
10. ibid.
A range of items can be used for the prevention of diabetes; the prevention or identification of patients with diabetes; and treatment of patients with diabetes.

The most commonly used item numbers are standard, surgery-based items that are familiar to all practitioners.

<table>
<thead>
<tr>
<th>Item number</th>
<th>Item description</th>
<th>Location of service</th>
<th>Item fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Level A professional attendance by a GP</td>
<td>Consulting rooms</td>
<td>$15.70</td>
</tr>
<tr>
<td>4</td>
<td>As above</td>
<td>Home visit or consultation in an institution (including a hospital) other than a residential aged care facility</td>
<td>$15.70 + $24.05/n*</td>
</tr>
<tr>
<td>20</td>
<td>As above</td>
<td>Residential aged care facility</td>
<td>$15.70 + $43.25/n*</td>
</tr>
<tr>
<td>23</td>
<td>Level B professional attendance by a GP</td>
<td>Consulting rooms</td>
<td>$34.30</td>
</tr>
<tr>
<td>24</td>
<td>As above</td>
<td>Home visit or consultation in an institution (including a hospital) other than a residential aged care facility</td>
<td>$34.30 + $24.05/n*</td>
</tr>
<tr>
<td>35</td>
<td>As above</td>
<td>Residential aged care facility</td>
<td>$34.30 + $43.25/n*</td>
</tr>
<tr>
<td>36</td>
<td>Level C professional attendance by a GP</td>
<td>Consulting rooms</td>
<td>$66.45</td>
</tr>
<tr>
<td>37</td>
<td>As above</td>
<td>Home visit or consultation in an institution (including a hospital) other than a residential aged care facility</td>
<td>$66.45 + $24.05/n*</td>
</tr>
<tr>
<td>43</td>
<td>As above</td>
<td>Residential aged care facility</td>
<td>$66.45 + $43.25/n*</td>
</tr>
<tr>
<td>44</td>
<td>Level D professional attendance by a GP</td>
<td>Consulting rooms</td>
<td>$97.80</td>
</tr>
<tr>
<td>47</td>
<td>As above</td>
<td>Home visit or consultation in an institution (including a hospital) other than a residential aged care facility</td>
<td>$97.80 + $24.05/n*</td>
</tr>
<tr>
<td>51</td>
<td>As above</td>
<td>Residential aged care facility</td>
<td>$97.80 + $43.25/n*</td>
</tr>
</tbody>
</table>

*n* = number of patients seen during the consultation, to a maximum of 6 patients

It is important for practices to consider using alternative item numbers to fund best practice diabetes care. Use of these items can incorporate and fund contributions from other members of the patient’s multidisciplinary care team.
### Appendix 1. Medicare item numbers

<table>
<thead>
<tr>
<th>Item description</th>
<th>Item fee</th>
<th>Patient eligibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief health assessment of less than 30 minutes duration</td>
<td>$55.00</td>
<td>- People aged 40–49 years (inclusive) with a high risk of developing type 2 diabetes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>as determined by the Australian Type 2 Diabetes Risk Assessment Tool</td>
</tr>
<tr>
<td>Standard health assessment lasting more than 30 minutes</td>
<td>$127.80</td>
<td>- People aged 45–49 years (inclusive) who are at risk of developing chronic disease</td>
</tr>
<tr>
<td>but less than 45 minutes</td>
<td></td>
<td>- Permanent residents of residential aged care facilities</td>
</tr>
<tr>
<td>Long health assessment lasting more than 45 minutes but</td>
<td>$176.30</td>
<td>- People with an intellectual disability</td>
</tr>
<tr>
<td>less than 60 minutes</td>
<td></td>
<td>- Refugees and other humanitarian entrants</td>
</tr>
<tr>
<td>Prolonged health assessment lasting more than 60 minutes</td>
<td>$249.10</td>
<td>- Children aged at least 3 years and less than 5 years, who have received or who are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>receiving their 4 year old immunisation</td>
</tr>
<tr>
<td>Aboriginal and Torres Strait Islander people health assessment</td>
<td>$196.65</td>
<td>All people of Aboriginal and Torres Strait Islander descent</td>
</tr>
<tr>
<td>Healthy Kids Check provided by a practice nurse or</td>
<td>$55.00</td>
<td>Children aged at least 3 years and less than 5 years of age, who have received or who</td>
</tr>
<tr>
<td>registered Aboriginal health worker</td>
<td></td>
<td>are receiving their 4 year old immunisation</td>
</tr>
<tr>
<td>GP Management Plan</td>
<td>$133.65</td>
<td>People with a chronic or terminal medical condition that are living in the community</td>
</tr>
<tr>
<td>Team Care Arrangements</td>
<td>$105.90</td>
<td>People with a chronic or terminal medical condition and complex care needs that are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>living in the community</td>
</tr>
<tr>
<td>Review a GP Management Plan or coordinate a review of</td>
<td>$66.80</td>
<td>People for whom a GP Management Plan or Team Care Arrangements or</td>
</tr>
<tr>
<td>Team Care Arrangements/ Multidisciplinary Community Care</td>
<td></td>
<td>Multidisciplinary Community Care Plan or Multidisciplinary Discharge Plan have</td>
</tr>
<tr>
<td>Care Plan/Multidisciplinary Discharge Plan</td>
<td></td>
<td>previously been claimed</td>
</tr>
<tr>
<td>Monitoring and support for a person on a GP Management</td>
<td>$11.35</td>
<td>People whose chronic condition/s are being managed through a GP Management Plan,</td>
</tr>
<tr>
<td>Plan or Team Care Arrangements by a practice nurse or</td>
<td></td>
<td>Team Care Arrangements or Multidisciplinary Care Plan</td>
</tr>
<tr>
<td>registered Aboriginal health worker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Medicines Review</td>
<td>$143.40</td>
<td>People living in the community who are at risk of medication related adverse events</td>
</tr>
<tr>
<td>Level B consultation in a surgery which completes the</td>
<td>$34.30</td>
<td>People who have been diagnosed with diabetes mellitus</td>
</tr>
<tr>
<td>minimum requirements of a Cycle of Care for patient with</td>
<td></td>
<td>and for whom the medical practitioner is completing the diabetes Cycle of Care</td>
</tr>
<tr>
<td>established diabetes mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$34.30+</td>
<td>As above</td>
</tr>
<tr>
<td></td>
<td>$24.05/n*</td>
<td></td>
</tr>
<tr>
<td>Level C professional consultation in a surgery which</td>
<td>$65.20</td>
<td>As above</td>
</tr>
<tr>
<td>completes the minimum requirements of a Cycle of Care for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>patient with established diabetes mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Fee</td>
<td>Notes</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$65.20 + $24.05/n*</td>
<td>As above</td>
</tr>
<tr>
<td>Level D professional consultation in a surgery which completes the minimum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requirements of a Cycle of Care for patient with established diabetes</td>
<td>$95.95</td>
<td>As above</td>
</tr>
<tr>
<td>mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$95.95 + $24.05/n*</td>
<td>As above</td>
</tr>
<tr>
<td>Standard consultation of 5–25 minutes in a surgery which completes the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>minimum requirements of a Cycle of Care for a patient with established</td>
<td>$21.00</td>
<td>As above</td>
</tr>
<tr>
<td>diabetes mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$16.00 + $17.50/n*</td>
<td>As above</td>
</tr>
<tr>
<td>Long consultation of 25–45 minutes in a surgery which completes the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>minimum requirements of a Cycle of Care for a patient with established</td>
<td>$38.00</td>
<td>As above</td>
</tr>
<tr>
<td>diabetes mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$35.50 + $15.50/n*</td>
<td>As above</td>
</tr>
<tr>
<td>Prolonged consultation of more than 45 minutes in a surgery which completes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the minimum requirements of a Cycle of Care for patient with established</td>
<td>$61.00</td>
<td>As above</td>
</tr>
<tr>
<td>diabetes mellitus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As above, but out of surgery</td>
<td>$57.50 + $15.50/n*</td>
<td>As above</td>
</tr>
</tbody>
</table>