

# Global Guideline

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## for Type 2 Diabetes

### Chapter 2: Care delivery

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## Recommendations

### ■ Standard care

- CD1 Offer care to all people with diabetes, with sensitivity to cultural wishes and desires.
- CD2 Encourage a collaborative relationship, by actively involving the person with diabetes in the consultation, and creating opportunities for them to ask questions and express concerns. Ensure that issues important to the person with diabetes are addressed.
- CD3 Offer annual surveillance of all aspects of diabetes control and complications to all people with Type 2 diabetes (see *Table CD1*).
- CD4 Agree a care plan with each person with diabetes
  - review this annually or more often if appropriate
  - modify it according to changes in wishes, circumstances and medical findings.
- CD5 Use protocol-driven diabetes care to deliver the care plan between annual reviews, at booked routine reviews.
- CD6 Provide urgent access to diabetes health-care advice for unforeseen problems.
- CD7 Organize care around the person with diabetes.
- CD8 Use a multidisciplinary care team with specific diabetes expertise maintained by continuing professional education.
- CD9 Ensure that each person with diabetes is recorded on a list of people with diabetes, to facilitate recall for annual complications surveillance.
- CD10 Provide telephone contact between clinic visits.
- CD11 Consider how people with diabetes, acting as expert patients, and knowing their limitations, together with local/regional/national associations, might be involved in supporting the care delivery of their local health-care team.
- CD12 Use data gathered in routine care to support quality assurance and development activities.

## ■ Comprehensive care

CD<sub>c</sub>1 In general this would be as *Standard care*.

CD<sub>c</sub>2 The person with diabetes will have access to their own electronic medical record via secure technology from remote sites. They will be able to give permission for any health-care professional to access that record.

CD<sub>c</sub>3 Decision support systems might be available to the health-care professional, and perhaps to the person with diabetes.

## ■ Minimal care

CD<sub>M</sub>1 Offer annual surveillance, agree care plans, deliver protocol-driven care, and ensure that each person with diabetes is recorded on a local list of people with diabetes, as for *Standard care*.

CD<sub>M</sub>2 Organize care around the person living with diabetes, using an appropriately trained health-care professional to deliver the diverse aspects of that care.

Table CD1

A summary of the assessments to be performed at Annual Review (or annually) for each person with Type 2 diabetes

Assessment topic	Guideline section
Self-care knowledge and beliefs	<i>Education</i>
Lifestyle adaptation and wishes (including nutrition, physical activity, smoking)	<i>Lifestyle management</i>
Psychological status	<i>Psychological care</i>
Self-monitoring skills and equipment	<i>Self-monitoring</i>
Body weight trends	<i>Lifestyle management</i>
Blood glucose control	<i>Glucose control; Clinical monitoring</i>
Blood pressure control	<i>Blood pressure control</i>
Blood lipid control	<i>Cardiovascular risk protection</i>
Cardiovascular risk	<i>Cardiovascular risk protection</i>
Erectile dysfunction, neuropathy	<i>Nerve damage</i>
Foot condition	<i>Foot care</i>
Eyes	<i>Eye screening</i>
Kidneys	<i>Kidney damage</i>
Pre-pregnancy advice (need for)	<i>Pregnancy</i>
Medication review	—

## Rationale

The person diagnosed with Type 2 diabetes requires access to immediate and ongoing care. Who provides this care, and where and when, will depend on local circumstances, but it needs to be organized in a systematic way. General principles include: annual review of control and complications; an agreed and continually updated diabetes care plan; and involvement of the multidisciplinary team in delivering that plan, centred around the person with diabetes.

## Evidence-base

Systems underlying structured organization of care for people with diabetes do not easily lend themselves to comparison by randomized controlled trials (RCTs). Much of the literature in this area is descriptive and interventions are often multifaceted. Some aspects of care organization that do not have a strong evidence-base have been adopted as good practice by a wide range of diabetes services across the world. Systematic review of the evidence was undertaken by the Canadian guideline [1] and the UK National Institute for Clinical Excellence (NICE) guideline on Type 1 diabetes [2].

Both guidelines found support for the multidisciplinary approach, with the Canadian guideline citing a systematic review by Renders et al [3]. Involvement of nurses with training in teaching skills and adult education in a number of aspects of diabetes education, and of formally trained dietitians and podiatrists within the specifically relevant areas of diabetes care, was highlighted [2]. Although there is no RCT evidence for annual review of control and complications, this has become the basis for many quality control structures for diabetes care [2,4]. Some of the rationale for annual surveillance in different areas of care is given in individual sections of the current guideline.

The Canadian guideline advocates organizational interventions that have been shown to improve health-care efficiencies, such as databases to provide patient and physician reminders and transfer of information [1,5], while NICE considers a database-driven recall system to be implicit in recommendations for annual surveillance [2]. Evidence for the usefulness of telemedicine (ranging from the telephone to technology for transmission of images) was reviewed by NICE, who recommended its use to improve process and outcomes [2,6], and drew attention to its potential in rural and remote situations.

Protocol-driven care is not specifically addressed by the guidelines, but Davidson has reviewed studies, including RCTs, in which nurses or pharmacists delivered diabetes

care following agreed protocols, and found they achieved improved process and outcomes compared with 'usual care' within the US health-care system [7,8].

The literature on care plans and patient-held/accessed records is as yet only descriptive, without useful analysis of patient-related outcomes, but the UK National Service Framework finds that these can help to empower people with diabetes [9].

## Consideration

Given the diversity of health-care systems around the world, recommendations in this part of the guideline are presented in very general terms. Flexibility and adaptability would seem to be important principles. Redeployment of underused resources (such as leprosy clinics) may offer opportunities for improved care in some areas. Where databases are not feasible, lists of people with diabetes can be established in simple book form. Telemedicine can encompass anything from telephones allowing access to health-care professional advice to sophisticated data transfer, but any advance in communications technology, or access to it, may offer opportunities for improved organization of care. Empowering patients to find their way in the system through access to their own data and perhaps through use of decision-support tools would seem to be a logical development.

## Implementation

Organization of care to deliver the above recommendations is largely concerned with:

- putting registration, recall and record systems in place to ensure care delivery occurs for all people with diabetes, and
- having the health-care professionals trained and available to provide the appropriate advice.

Simple communications technologies, and personnel support for those, need to be in place. More sophisticated telemedicine and other IT approaches require not just appropriate software and hardware, but again appropriately trained staff, and continuing maintenance.

## Evaluation

Evaluation will show evidence of structured records being appropriately completed as part of recall and appointment systems driven from a list of people with diabetes. Evaluation of proportions of the managed population receiving defined components of care (such as glucose control, eye screening or blood pressure checks) within a 12-month

period should be made regularly. The staff providing the service should be identified, together with evidence of their continued professional training. The existence of appropriate communications equipment and protocols, and arrangements for their use, can be reviewed.

## References

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