Organization of Care:

Key elements from the CDA 2008 Clinical Practice Guidelines

Author: Maureen Clement MD, CCFP

If there were an intervention that reduced A1C…wouldn't you use it?

There is!

It is a systematic approach to diabetes care.

GOOD OUTCOMES FOR PEOPLE LIVING WITH DIABETES DEPEND ON:

1. Daily commitment to **self-management**
2. Support by their **proactive interdisciplinary team**
3. A **system** that links these two together

This article translates evidence from the **Organization of Care** chapter of the *Canadian Diabetes Association's 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada* into **practical strategies for primary care providers**. These providers include family physicians, healthcare teams, diabetes education centres that provide ongoing care and/or specialists who are the primary diabetes care provider.

THE SYSTEM

A systematic approach to diabetes care will improve outcomes. The key components of a systematic strategy for diabetes care are to:

1. Identify patients with diabetes
2. Have a diabetes registry
3. Have a systematic recall process
4. Use clinical flow sheets
5. Consider diabetes-focused visits/group visits

* The *Canadian Diabetes Association 2008 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada* can be found on the Web at www.diabetes.ca/for-professionals/resources/2008-cpg.

Outcome studies show that the use of flow sheets is associated with increased adherence to guidelines.

THE SYSTEM

1 Identify patients with diabetes

When seeing patients, ordering medication or arranging investigations, it is helpful for professional and support staff to know who in the practice has diabetes.

Paper charts

- Use stickers on the outside of chart or colour code charts.
- Include a problem list on front sheet of chart and highlight diabetes.
- Include a clinical diabetes flow sheet at the front of the chart.

Electronic Medical Records (EMR)

- Most EMR have a summary section or patient profile that lists diagnoses, and when opened identifies patients with diabetes.

2 Have a diabetes registry

It is important to know your entire patient population to manage them well. A diabetes registry is a list of people with diabetes in your practice.

Paper charts

- Can be created from billing information.
- Chronic Disease Toolkit (available in some provinces) - to help primary care physicians keep track of their patients and create a practice registry.
- Community resources - Diabetes education centres may be able to generate a list by primary care provider.

Electronic Medical Records

- EMR can be a very helpful and sophisticated tool for tracking the number of patients with diabetes and demographic information.
- Lists can be generated and sorted by age, type of diabetes, A1C or other criteria.
- Can track the number of patients achieving targets and whether any changes made improved control.
- Can help identify patients for group visits who have similar needs.

3 Have a systematic recall process

Outcomes can be improved if the primary care team works within a structure that provides reminders and recall for metabolic control and complication risk assessment.

Paper charts

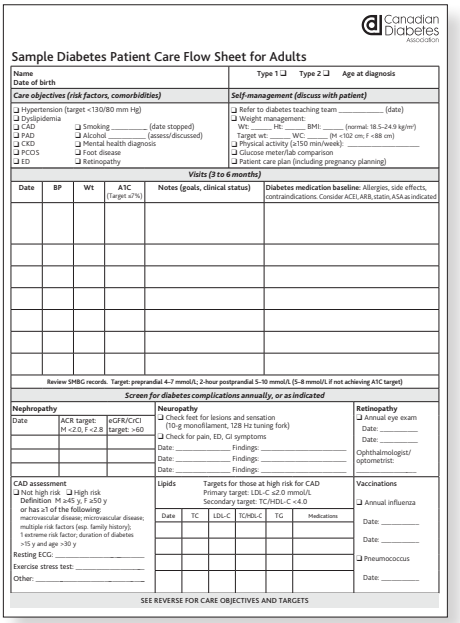
- Once a registry is in place, a recall system can be established.
- Can be simple - such as recalling patients by their birth month or allocating certain last name first initials to specific months for recall.
- A three-month prescription can serve as a basis for reminding patients of their next visit (Note: this may not be ideal for a non-adherent patient).
- Recall visit can be booked at the time of the current visit.
- Laboratory can book patient for their next lab test at the time of the current blood work; Physician can recall patient once blood work is received.

Electronic Medical Records

- EMR can generate “tasks” to automatically recall patients for lab work and visits.
- EMR can search for “overdue” interventions for patients who have not shown up and might get lost to follow-up in a paper-based system.

4 Use clinical flow sheets

A clinical flow sheet is a one or two page form that gathers all important data regarding a patient's disease. Outcome studies show that their use is associated with increased adherence to guidelines. It is useful to have an easy and accessible method to track metabolic parameters and ensure timely assessment of complications and risk factors. A flow sheet also becomes a convenient tool for explaining to patients the meaning of various tests, complications and need for on-going follow up.



Canadian Diabetes Association

Sample Diabetes Patient Care Flow Sheet for Adults

Name Date of birth	Type 1 ❑ Type 2 ❑ Age at diagnosis
Care objectives (risk factors, comorbidities)	***Self-management (discuss with patient)***
❑ Hypertension (target <130/80 mm Hg) ❑ Dyslipidemia ❑ CAD ❑ Smoking _____ (date stopped) ❑ PAD ❑ Alcohol _____ (assess/discussed) ❑ CKD ❑ Mental health diagnosis ❑ PCOS ❑ Foot disease ❑ ED ❑ Retinopathy	❑ Refer to diabetes teaching team _____ (date) ❑ Weight management: Wt: _____ Ht: _____ BMI: _____ (normal: 18.5–24.9 kg/m²) Target wt: _____ WC: _____ (M <102 cm; F <88 cm) ❑ Physical activity (≥150 min/week): _____ ❑ Glucose meter/lab comparison ❑ Patient care plan (including pregnancy planning)

Visits (3 to 6 months)

Date	BP	Wt	A1C (Target ≤7%)	Notes (goals, clinical status)	Diabetes medication baseline: Allergies, side effects, contraindications. Consider ACEI, ARB, statin, ASA as indicated

Review SMBG records. Target: preprandial 4–7 mmol/L; 2-hour postprandial 5–10 mmol/L (5–8 mmol/L if not achieving A1C target)

Screen for diabetes complications annually, or as indicated

Nephropathy

Date	ACR target: M <2.0, F <2.8	eGFR/CrCl target: >60

Neuropathy
❑ Check feet for lesions and sensation (10-g monofilament, 128 Hz tuning fork)
❑ Check for pain, ED, GI symptoms
Date: _____ Findings: _____
Date: _____ Findings: _____
Date: _____ Findings: _____

Retinopathy
❑ Annual eye exam
Date: _____
Date: _____
Ophthalmologist/optometrist: _____

CAD assessment
❑ Not high risk ❑ High risk
Definition M ≥45 y, F ≥50 y or has ≥1 of the following: macrovascular disease, microvascular disease; multiple risk factors (esp. family history); 1 extreme risk factor; duration of diabetes >15 y and age >30 y
Resting ECG: _____
Exercise stress test: _____
Other: _____

Lipids
Targets for those at high risk for CAD
Primary target: LDL-C ≤2.0 mmol/L
Secondary target: TC/HDL-C <4.0

Date	TC	LDL-C	TC/HDL-C	TG	Medications

Vaccinations
❑ Annual influenza
Date: _____
Date: _____
❑ Pneumococcus
Date: _____

SEE REVERSE FOR CARE OBJECTIVES AND TARGETS

Paper charts

- A sample flow sheet is available on the Association's website (visit **diabetes.ca/for-professionals/resources/2008-cpg**); refer to Appendix 2, pages S195-196.
- Are available on some provincial chronic disease management websites.
- Flow sheets can be filled in by the staff when paper lab results and consults are filed.
- Flow sheets should be kept at the front of charts.

Electronic Medical Records

- Can automatically populate lab values into the EMR flow sheet.
- Care elements that are overdue or not at target are often highlighted.
- EMR can display results in a longitudinal fashion to highlight trends.

5 Consider diabetes-focused visits/group visits

Diabetes-focused visits can help both patients and physicians deal with this complex disease. If the patient and the physician understand that the visit is to address issues around diabetes, this allows time to discuss lab test results, complications, risk assessment, adherence and follow-up. Group visits can also not only potentially increase capacity, but may allow meaningful exchange of information to occur among people with diabetes and help patients to self-manage. Useful information on group visits can be found at: **www.impactbc.ca/practicesupport/pspmodules/groupvisits.**

THE CHANGING FACE OF PRIMARY CARE AND INCENTIVE BILLINGS

Many provinces are working toward a model of community team-based care, with the primary healthcare team consisting of nurse practitioners, nurses, dietitians, pharmacists, social workers, exercise specialists and physicians. Some groups of physicians are organized into larger groups to do more comprehensive care and have a rostered practice.

Good, longitudinal complex disease management is time consuming. Since most physicians work in a fee-for-service environment, many provinces have instituted incentive billings for providing high-quality chronic disease management and higher payments for complex rostered patients. For a summary of incentive type billings by province, please visit **diabetes.ca/for-professionals/resources**.

Diabetes-focused visits can help both patients and physicians deal with this complex disease.

THE PROACTIVE INTERDISCIPLINARY TEAM

Diabetes healthcare teams, proactive about self-management practice that provide comprehensive, shared care of a collaborative nature have been shown to increase the commitment and participation of the person with diabetes.

- Should be interdisciplinary and include the person with diabetes and their family, the physician and diabetes educators (i.e. nurse and dietitian) and other specialists as required.
- Nutritional counselling by a registered dietitian is recommended.
- Family healthcare teams may provide some of the chronic disease management and work collaboratively with more specialized diabetes education centres within various models of care.
- Case management across a number of disciplines (i.e. diabetes education/pharmacy) have been shown to improve care; most effective when integrated into the team and where relevant team member's role is enhanced (i.e. incorporating a diabetes educator's advice on insulin dose adjustment).

DAILY COMMITMENT OF THE PERSON WITH DIABETES TO SELF-MANAGEMENT

- Diabetes self-management programs have been demonstrated to improve A1C values.
- Ongoing diabetes education and comprehensive care should occur together.
- Approach should include problem solving, goal setting and active participation in decision-making.
- People with diabetes should be supported in interpreting and acting on self-monitoring of blood glucose results, making informed management decisions about insulin, medication, nutrition, physical activity and other lifestyle issues, including daily preventive practices such as good foot care.

Thank you to those who helped with content: Dr. T. Laubscher, Peggy Dunbar, Dr. I. Blumer, Dr. A. Cheng, Dr. O. Bhattacharyya, Dr. S. Ludwig, Dr. R. Sherwin, Peter McDougall, Dr. R. Conway, Dr. A. Colbourne, Dr. C. Wallace. EMR information: Lyndon McPhail (Practice Solutions) David Trottier (Osler Systems) and Med Access.

Across the country, the Canadian Diabetes Association is leading the fight against diabetes by helping people with diabetes live healthy lives while we work to find a cure. We are supported in our efforts by a community-based network of volunteers, employees, healthcare professionals, researchers and partners. By providing education and services, advocating on behalf of people with diabetes, supporting research and translating research into practical applications – we are delivering on our mission.

diabetes.ca | 1-800-BANTING (226-8464)

Canadian Diabetes Association

02/10