Self-Monitoring Blood Glucose Workshop I: promoting meaningful dialogue and action at the provincial level

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Introduction

The Nova Scotia Department of Health and Wellness supports a number of provincial programs, including the Diabetes Care Program of Nova Scotia (DCPNS), that function in an advisory capacity to the health department. Committed to ongoing improvement of the health care system and to the promotion of uniform standards throughout the province, these programs bring together experts / working groups to advise the system, recommend service delivery models, establish and monitor approved standards, guide policy and facilitate knowledge transfer/translation and networking in support of best/promising practices. The aim is to improve care and outcomes at the local, district and provincial levels. The development of the DCPNS Self-Monitoring Blood Glucose (SMBG) Decision Tool and the SMBG Workshop and related follow-up work are a cogent example of how a provincial program can quickly mobilize a broad range of experts and front-line health care providers to address an important issue like SMBG.

Background

“Should all people with diabetes mellitus self-monitor their blood glucose?” This question has received increasing attention in recent years as individuals and the health care system struggle with costs related to testing, the limited evidence in support of testing for some populations, and the realities of using test results for persons with diabetes and their health care providers. This topic is not new. The American and Canadian Diabetes Associations hosted debates on SMBG during their national conferences, in 2005 and 2006 respectively. In November 2006, Alberta’s Institute of Health Economics hosted the first Canadian Consensus Conference on Self-Monitoring in Diabetes. National and international speakers presented clinical evidence as well as economic, policy and consumer perspectives. An expert panel assimilated the information and formulated responses to predetermined questions into a consensus document intended for use by all sectors in decision-making around SMBG in Canada.

This consensus work was followed by local, national and international work, including a qualitative study on health care professional views and practices related to SMBG in Nova Scotia; recommendations and reports by the Canadian Agency for Drugs and Technologies in Health (CADTH); costing reports from Ontario’s Institute for Clinical Evaluative Sciences; peer-reviewed publications; workshop presentations and the International Diabetes Federation’s guidelines on Self-Monitoring of Blood Glucose in Non-Insulin Treated Type 2 Diabetes, among others.

The DCPNS participated in some of this earlier work. More recently, the Program led discussions to help guide and inform policy and contribute to finding a sustainable, realistic solution to SMBG. Such a solution would help reduce the burden of unnecessary and sometimes wasteful testing in a specified population with diabetes. Details of the SMBG Workshop are presented below, and details of the follow-up work and the SMBG Decision Tool are presented elsewhere.

Workshop audience and objectives

In January 2010, the DCPNS invited a multidisciplinary group of diabetes health care professionals to discuss the Canadian Optimal Medication Prescribing and Utilization Service (COMPUS) recommendations regarding SMBG for non-insulin-treated type 2 diabetes, specifically its use, frequency and application in Nova Scotia. Numerous local and national observers also attended the workshop to gain insight from the discussions (see Table 1). Participants were tasked with the following:

• helping to formulate preliminary consensus recommendations, with the help of case-based discussions, on diagnostic strip usage for non-insulin-treated type 2 diabetes mellitus;
• identifying potential criteria for “exception status” in SMBG strip requirements for non-insulin-treated type 2 diabetes; and
• recommending next steps regarding patient and provider tools, supports and communications.

Plenary sessions

Four plenary sessions, focusing on the Nova Scotian context, contributed to understanding the evidence underlying the following COMPUS recommendation: “For most adults with type 2 diabetes using oral antidiabetes drugs (without insulin) or no antidiabetes drugs, the routine use of blood glucose test strips for SMBG is not recommended.”
The plenary sessions (see Table 2) were followed by an exercise that required participants to consider the following:

- “What did you hear... what hit home with you?”
- “What were the main take-away messages for you?”

Six theme areas emerged; these are shown below with brief summary points and/or illustrative quotes.

1. Costs/Wastage
   - Awareness of escalating costs and the need for fiscal responsibility: “The potential savings are huge.”

2. Research
   - Acknowledgment and better understanding of the lack of evidence supporting SMBG and improved outcomes.

3. Variations in practice
   - Appreciation of variations in practice among and between diabetes practitioners.
   - Need for education and programming on how to use, interpret and act on SMBG results.

Abbreviations: CADTH, Canadian Agency for Drugs and Technologies in Health; COMPUS, Canadian Optimal Medication Prescribing and Utilization Service; NS, Nova Scotia; SMBG, self-monitoring blood glucose.
4. Messaging
- Information needs to be relayed to persons with diabetes and care providers about the impact of SMBG on outcomes as well as current perceptions and practices.
- There is a need for consistent messaging and to refocus patient monitoring on those things that will make a difference in day-to-day management and patient outcomes—food intake, activity/exercise, weight, medication persistence, etc.
- Everyone needs to agree on recommendations about who should test and, for those who should test, the frequency of testing.

5. Changes in practice
- There is no evidence to support the belief that SMBG is a motivator and results in better outcomes in this population: “We need to rethink SMBG for those that really need it and will benefit. This rethinking will result in a huge shift in practice and how we interact with patients.”

6. Opportunity
- Need to change current SMBG guidelines and better understand how SMBG fits within the concept of self-care.

Case-based discussions

The second half of the workshop focused on case-based discussions and small group work facilitated by clinical experts, Drs. Lynne Harrigan (Internist) and Dale Clayton (Endocrinologist). Cases moved from simple to complex and explored SMBG considerations related to diagnosis, degree of hyperglycemia, type of diabetes treatment, risk of hypoglycemia, and the influences of age, occupation, interest, cognition and motivation.

Participants were introduced to a draft SMBG Decision Tool developed by the DCPNS. The draft tool had three focal areas:
1. instructions for how to use and interpret the tool;
2. indications and considerations for SMBG (e.g. safety, planned use of the results by the individual and his/her health care team, and self-management education); and
3. SMBG recommendations (e.g. specific examples of low and high intensity testing with a focus on “time-limited” testing).

Participants used the tool as they worked through seven case studies, as they would be expected to do in practice. According to the participants, “the tool allowed for a more objective look at each individual case and removed emotion and subjectivity from the equation.” It allowed for a focus on patient safety, available evidence, an individual’s interest and capability, and the health care provider’s use of results. In cases for which testing is recommended, the tool also helped participants to determine the intensity of testing required (e.g. low-intensity versus time-limited, high intensity).

Following the case studies, participants committed to continuing the dialogue and refining the SMBG Decision Tool by responding to consensus questions and a “Needs and Wants” exercise via email. This feedback will help guide DCPNS and other partners in the development and delivery of resources and programs to move forward a more standardized approach to SMBG in Nova Scotia.

Conclusion and next steps

Through leadership and partnership, the DCPNS demonstrated the value of addressing the SMBG issue through local dialogue, decision, and provider and patient supports as well as planned, thoughtful dissemination strategies to increase reach into a variety of provider groups.

The DCPNS refined the SMBG Decision Tool and worked with its partners and other stakeholders to reach across provider groups to attain consistency in approach and messaging for SMBG in the non-insulin-treated type 2 diabetes population. The results of this continued work are reported in Part II of this article.\(^2\)

Acknowledgements

The Diabetes Care Program of Nova Scotia would like to thank all the participants of the Self-Monitoring Blood Glucose Workshop for helping to guide this important work and the observers for their encouragement and support. In particular, we would like to acknowledge Bev Harpell, Brenda Cooke, and Dr. Lyne Harrigan for helping to shape the draft SMBG Decision Tool and the agenda for the SMBG Workshop. Last, but not least, we would like to thank Pam Talbot for her contributions toward the preparation of this manuscript.

References


