DEVELOPMENT OF PHARMACIST-SPECIFIC DIABETES GUIDELINES

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Conflict of interest disclosure

• Rosemary Killeen received an honorarium from Merck Frosst Canada in June 2009 for acting as a Moderator at an educational event on diabetes management. The *CPJ* Diabetes guidelines for pharmacists were used as one of the many reference sources for the presentation.
History of Canadian Pharmacists Journal (CPJ)
Hypertension Guidelines for Pharmacists

2006 Canadian Hypertension Education Program Guidelines for the management of hypertension by pharmacists

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Pharmacist-specific CPGs

- Heart Failure
- Adult and pediatric asthma
- Chronic obstructive pulmonary disease (COPD)
- Gastro-esophageal reflux disease (GERD)
- Dyslipidemia
• Comprehensive evidence-based CPG
• developed by 84 member expert committee, including 4 pharmacists
• 215 pages, published in September 2008
• www.diabetes.ca/for-professionals/resources/2008-cpg/
Key steps in adaptation process

- Get permission from originating org.
- Identify Guest Editors & topics
- Establish staff & work plan
- Select contributors & reviewers
- Define review process with pharmacists/CDE, physician and dietician
- Obtain final approval & endorsement
How to select content
Lifestyle changes and the management of obesity

Lifestyle considerations

Physical activity
Moderate to high levels of exercise are associated with reductions in morbidity and mortality in individuals with both type 1 and type 2 diabetes. Other benefits include increased cardiorespiratory fitness, increased vigour, improved glycemic control, decreased insulin resistance, improved lipid profile and weight loss maintenance. Studies have recently shown that aerobic exercise limits the development of peripheral neuropathy.

- People with diabetes should accumulate a minimum of 150 minutes of moderate- to vigorous-intensity aerobic exercise each week, spread over at least 3 days of the week, with no more than 2 consecutive days without exercise [Grade C, Level 3, for type 1 diabetes; Grade B, Level 2, for type 2 diabetes].
- People with diabetes, including the elderly, should also be encouraged to perform resistance exercise 3 times per week [Grade B, Level 2]. Initial instruction and periodic supervision by a qualified or certified exercise specialist, such as a personal trainer or kinesiologist, are recommended [Grade D, Consensus].

Web links
Canada’s Food Guide:

Canadian Diabetes Association:
- Just the Basics:
  www.diabetes.ca/about-diabetes/nutrition/just-basics
- Glycemic Index:
  www.diabetes.ca/health-care/resources/nutrition/glycemic-index

American Diabetes Association:
Nutrition: www.diabetes.org/food-nutrition-lifestyle/nutrition.jsp

United Nations:
Task Force on the Global Food Security Crisis:

Nutrition therapy
Nutrition therapy plays an essential role in the treatment of diabetes. It can improve glycemic control by reducing glycated hemoglobin (A1C) by 1% to 2%. It should be part of self-management education (SME) programs and must be based on individual needs such as preferences, age, culture, lifestyle, economic status, activity level and readiness to change.

- Nutrition counselling by a registered dietitian is recommended to lower A1C levels [Grade D, Consensus, for type 1 diabetes; Grade B, Level 2, for type 2 diabetes]. It is equally effective when given in a small group or one-on-one setting.
Complementary therapies and alternative management

Complementary and alternative medicine (CAM) is defined as medicine that does not conform to medical community standards, is not widely taught in North American medical schools and is not available in North American hospitals. It may involve herbal medications, dietary supplements such as vitamins, and other interventions, including acupuncture and yoga.

Evidence from CAM trials is limited, due to short duration, small sample sizes and lack of standardization, and is often difficult to access. As such, harmful side effects which have been used to improve glycemic may be missed and/or not reported. Table 1 lists some herbs which have been used to improve glycemic control in adults with type 2 diabetes. Note that the

Practice Tips

- Discuss any products that make antihyperglycemic claims with patients.
- Routinely ask patients if they are using any for complementary and alternative medicine (CAM) and not be dismissive, as patients may be reluctant to provide this information with you if they detect skepticism.
- Ask about all over-the-counter (OTC) products, including vitamins. Many patients do not consider these products to be medications.
- Community pharmacists should be aware of glycemic implications of any CAM products available in their location, as well as interactions between drugs and CAM products that may affect glucose control.
- Watch for potential interactions between OTC products and diabetes; e.g., oral decongestants have the potential to elevate blood glucose levels, and oral liquid formulations may contain substantial amount of caloric ingredients such as sugars and alcohol. However, these medications taken in usual does over a short period of time tend to have no discernable effect on glycemic control.
Challenges

• Working with external organizations
• Expectation for consistency with other references produced by our publisher
• Translation into French

When 2 guidelines collide...

Jeff A. Johnson, BSc, PhD

Guidelines are intended to be evidence-based advice to support decision-making. That is, the strongest recommendations are based on the best available research evidence. When different guidelines appear to contradict one another, it may not be a matter of one guideline being right and one wrong, but rather a situation in which they were created for different objectives and considering different evidence bases.¹

Clinical practice guidelines (CPGs), such as the 2008 Canadian Diabetes Association’s (CDA) CPGs, are based on evidence of clinical effectiveness. Randomized controlled trials are considered the top of the evidence ladder, with various lower levels of evidence available. Policy guidance, on the other hand, often diabetes. The CADTH recommendations are aimed at policy decision-makers and formulary managers, and consider evidence of LAIA’s cost-effectiveness. The 2008 CDA CPGs, aimed at clinician decision-makers, consider only LAIA clinical effectiveness. LAIA provide similar overall glycemic control as NPH insulin, but are associated with a modest reduction in nocturnal hypoglycemia, hence providing some clinical benefits plan. The CADTH recommendations are based on additional evidence, taking into account the incremental cost (LAIA cost 2 to 3 times more than NPH insulin) and the impact on patients’ health-related quality of life, and conclude the increased cost outweighs LAIA’s modest clinical benefit.
Final print versions!
Online edition

- Fully searchable edition freely available at [www.cpjournal.ca/diabetes](http://www.cpjournal.ca/diabetes)
Post publication evaluation

• 82% of English & 100% of French respondents agreed or strongly agreed CPJ document had increased their awareness of the most current evidence-based guidelines for diabetes.

• 77% English & 83% French agreed or strongly agreed they felt more confident providing care to patients with diabetes after reading summary.
Benefits of this Process

• Consistency of information and care provided to patients
• Timely access to content
• Reduced costs of knowledge to action efforts
• Enhanced collaboration between health professionals and organizations
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Questions

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