

# Diabetes Care in Nova Scotia



A NEWSLETTER OF THE DIABETES CARE PROGRAM OF NOVA SCOTIA

## State of the Art

### Diabetes Guidelines for Elderly Residents in Long-Term Care (LTC) Facilities

*In Nova Scotia currently, there are 6,869 LTC beds (nursing homes, residential facilities, and community-based options), of which 19.7% of residents have diabetes.<sup>1</sup>*

This “State of the Art” article reviews and rationalizes the DCPNS *Diabetes Guidelines for Elderly Residents in Long-Term Care (LTC) Facilities* Pocket Reference that will be released in February 2009. These guidelines principally advocate liberalizing glycemic targets to avoid hypoglycemia.

Any treatment recommendation for residents with diabetes in LTC must consider the characteristics of the individuals who live there. Older adults residing in LTC are frail, which is defined by the accumulation of multiple chronic illnesses and associated vulnerability. Residents who are frail commonly have dementia, functional decline, and geriatric syndromes such as falls, impaired mobility, and polypharmacy. They are at risk for adverse outcomes, hospitalization, and death.<sup>2</sup>

How do these characteristics impact recommendations for diabetes treatment and particularly glycemic targets? For those who are frail, care is made complex by interacting problems and precarious health. Frail older adults are not only more susceptible to adverse effects such as hypoglycaemia, but also they are likely to have more harmful and severe reactions. For this reason, the focus of these guidelines is to promote reasonable glycemic targets and avoid hypoglycemia.

A review of the evidence helps justify the recommendations for permissive glycemic targets. Firstly, the benefit of tight glycemic control in this population is uncertain. None of the randomized controlled trials (RCT) of glycemic control in people with type 2 diabetes enrolled frail older subjects.<sup>3-6</sup> Consequently, it is difficult to extrapolate positive outcomes to this group. Secondly, the frail have a limited life expectancy. Therefore, treatments that require long periods of time to accrue benefit will not provide any practical advantage to this population. In the most well known RCT involving newly diagnosed people with type 2 diabetes, the UK Prospective Diabetes Study (UKPDS),<sup>3</sup> glycemic control decreased the risk of microvascular disease but only after 6 to 75 years. In addition, the demonstrated benefits in reduced microvascular disease were

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limited to surrogate outcome measures. For instance, although the UKPDS demonstrated that tight control reduced microvascular complications, this was largely due to a 25% risk reduction in the need for retinal photocoagulation. There was no difference in the deterioration of visual acuity or the proportion blind in both eyes. Likewise, the UKPDS demonstrated that intensive therapy decreased urinary albuminuria, but there was no difference in the clinical outcomes of renal failure with dialysis or plasma creatinine above 250 mmol/L. Except for obese patients using metformin, the UKPDS and other RCTs of type 2 diabetes failed to reduce the macrovascular complications of diabetes.<sup>3-6</sup> Furthermore, the recent Action to Control Cardiovascular Risk in Diabetes (ACCORD) trial<sup>4</sup> demonstrated that a glycemic target of A1C < 6% compared to a target between 7 to 7.9% increased mortality for individuals with type 2 diabetes, many of whom had underlying cardiovascular disease. Apart from obese individuals using metformin, the only study that showed a reduction in macrovascular outcomes was a 10-year follow-up study of the UKPDS,<sup>7</sup> a benefit that took decades to achieve, time which the frail elderly do not have.

Every RCT of diabetes treatment shows that the risk of hypoglycemia, which can be life threatening for this population, increases with intensive therapy.<sup>3-6</sup> Notably, in the later stages of dementia, residents have inconsistent oral intake, which may cause variable low blood glucose measurements. In addition, residents may not have the typical warning symptoms of hypoglycemia, limiting their ability to perceive low blood sugar. Because of cognitive impairment, even if symptoms of

hypoglycemia occur, residents may not be able to clearly communicate these symptoms, delaying the correction of low blood sugars. Hypoglycemia can cause falls and subsequent fracture, confusion, and coma.

The guidelines also recommend avoiding extreme and prolonged hyperglycemia. Prolonged hyperglycemia can cause polyuria, which can potentially worsen nocturia and incontinence. Other symptoms of hyperglycemia include dehydration, weight loss, falls, infection, and impaired cognition. Nevertheless, residents with type 2 diabetes have fewer hyperglycemic-related symptoms compared to younger people with type 1 diabetes and it is not clear that better glycemic control will improve these non-specific symptoms that are common in elderly people.

Recommended glycemic targets were developed from this perspective. Any blood glucose (BG) below 7.0 mmol/L, which would be desirable for healthy individuals, would be considered too low for the frail. In this case, diabetes treatment should be decreased. BG between 7.0 and 9.9 mmol/L is safe, although there is still a risk for hypoglycaemia. BG between 10.0 and 14.9 mmol/L is acceptable, as are BG measures between 15.0 and 20.0 mmol/L as long as there are no reversible symptoms.

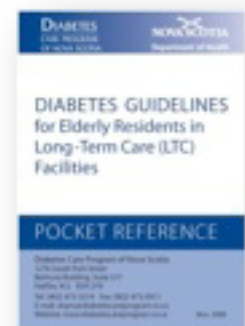
Diabetes is a common condition of nursing home residents. For these residents, it is important to have realistic targets for glycemic control. A review of the literature shows that there is no evidence of benefit for intensive blood glucose control for this population. In actuality, frail older adults may experience increased harm from

aggressive glucose management using complex treatment regimens.

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#### References:

1. Nova Scotia Department of Health. Seascope; November 2, 2008.
2. Bergman H, Ferrucci L, Guralnik J, et al. Frailty: an emerging research and clinical paradigm—issues and controversies. *Journals of gerontology Series A-Biological Sciences & Medical A-Sciences*. 2007;62(7):731-737.
3. UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). *Lancet*. 1998;352(9131):837-53.
4. The Action to Control Cardiovascular Risk in Diabetes Study Group. Gerstein HC, Miller ME, Byington RP, et al. Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med*. 2008;358(24):2545-2559.
5. ADVANCE Collaborative Group. Patel A, MacMachon S, Chalmers J, et al. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. *N Engl J Med*. 2008;358(24):2560-2572.
6. Duckworth W, Abraira C, Mortiz T, et al. Glucose control and vascular complications in veterans with type 2 diabetes. *N Engl J Med*. 2009;360(2):129-139.
7. Holman RR, Paul SK, Bethel MA, Matthews DR, Neil HA. 10-year follow-up of intensive glucose control in type 2 diabetes. *N Engl J Med*. 2008;359(15):1577-1589.



# News from the Care Program

**A**nother New Year! The staff and Advisory Council of the DCPNS wishes you the best for a happy and healthy 2009. As with the start of every New Year, we find we are off and running. This will be an exciting year as we undertake a number of new activities as a result of our strategic plan. We are in the process of building a complete inventory of DCPNS resources and materials and determining priorities for review and revision. We will be looking to our many partners, including front line care providers, to guide this project as we work across various settings to improve diabetes care.

Submissions to this issue of the newsletter highlight some of the important work that is currently ongoing in the province. In our “State of the Art” article, Dr. Laurie Mallery provides a very thoughtful introduction to the DCPNS *Guidelines for Elderly Residents in Long-Term Care (LTC) Facilities Pocket Reference*. Understanding the issues of greatest importance to the institutionalized elderly is paramount to the work we do. We are also pleased to share the approach used by the staff at Valley Regional Hospital Diabetes Centre as they implement exercise programming focused on resistance band classes. Bev Harris shares lessons learned that just might help to pave the way for local programming in other parts of the province. It is this type of leadership and willingness to share that we feel is important to highlight. We invite submissions from others that have embraced the Physical Activity and Exercise Tool Kit guidelines. We would be happy to profile tips, innovations, and new partnerships. . . Remember, we don't need to reinvent the wheel.

## Diabetes Care Advisory Council

With the assistance of the Council, the DCPNS submitted its business plan for 2009/10. Emphasis was placed on priority activities falling out of the Strategic Plan (see the last issue of the newsletter).

The *DCPNS Strategic Plan 2008-2012* can be found on the DCPNS website (under Annual Report) along with the report that compiles the findings from the strategic planning process (literature review, scan, survey findings, etc.).

## Subcommittees and Working Groups

### *The Diabetic Foot in Nova Scotia: Challenges and Opportunities - Working Group Activities*

The Foot Assessment form, the Foot Risk Stratification form, the Diabetic

Foot Referral Algorithm, and the Patient Decision Tree and Risk Information sheets are nearing completion. Many thanks to those that provided feedback and advice. Revisions have also been made to the foot care questionnaire and this is now available for use. All new tools will be introduced during the DCPNS Spring Workshop in April 2009.

### *Care of the Elderly with Diabetes Residing in LTC Facilities*

Our December 10, 2008 Telehealth session with Drs. Laurie Mallery and Thomas Ransom provided strong rationale and introduction to the *Diabetes Guidelines for Elderly Residents in Long-Term Care (LTC) Facilities Pocket Reference*. This tool provides information for the identification and treatment of hypoglycemia as well as targets for glycemia. The *Pocket Reference* should be available in February 2009.

## *Pediatric to Adult Care Transition Working Group*

The *Moving On With Diabetes* transition booklet is undergoing final review by DCPNS staff and committee members and will soon be ready for graphic design. Youth ages 16 to 18 will be invited to participate in a contest to design the cover of this booklet. Contest details will be forwarded to participating Diabetes Centres. Copies of the *Transition Summary*, along with guidelines for using this form, will be sent to the Diabetes Centres in the near future. Plans to develop an electronic version of this form are underway. Knowledge and skill checklists require further revision to ensure appropriate reading level for adolescents. Once this has been achieved, these forms will also be ready for graphic design.

## *Special Initiatives*

We are pleased to have Cora Lee Joudrey and Tina Witherall, diabetes educators, working with us on a part-time basis to assist with some of the DCPNS revision work. With the recent release of the *CDA 2008 Clinical Practice Guidelines*, the timing is right to review and revise documentation forms and guideline/resource materials. We are presently compiling an inventory of all DCPNS resource materials (patient and provider) to help determine priorities for revision.

## *DCPNS Forms Revision*

We have started the process! Recent emails have encouraged directed feedback to Cora Lee. If you would like to help in the revision or provide comment on any draft copies, please contact Cora Lee (CLJoudrey@diabetescareprogram.ns.ca) or Brenda Cook (bcook@diabetescareprogram.ns.ca), as they are leading this initiative.

## *DCPNS Insulin Dose Adjustment Polices & Guidelines Manual*

We are pleased to report that a working group has been struck to start this review process. If you are a user of the manual and have suggestions for change/improvement, please provide these directly to Bev Harpell (bharpell@diabetescareprogram.ns.ca).

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## Spring 2009 DCPNS Provincial Workshop

Mark your calendars for April 23rd (afternoon and evening) and April 24th for the DCPNS spring workshop being held at Pier 21, Halifax. We are in the early stages of planning the agenda and hope to have this out in the coming weeks. We do know that a Foot Forum will take place on the Thursday afternoon. A wide array of speakers will help move the work of the Foot Care Working Group forward. Sessions will focus on the magnitude of the problem, recommended best practice interventions, and review the practical aspects of foot assessments and foot care. Please visit the DCPNS website mid February for workshop information and registration forms.

## Surveys

The DCPNS would like to thank diabetes educators for responding to our recent survey on DCPNS methods and modes of communication (website, newsletter, annotated bibliography, lending library, etc.). If you have not yet had a chance to respond to the electronic survey, it is not too late. Forward in confidence to the DCPNS office. We are also gathering information from each Diabetes Centre on specific practices and approaches related to pump therapy, use of diabetes data, and hand-held records. This is important as we determine next steps in relation to these areas. In the coming weeks, DCPNS staff will also be conducting phone surveys to assess the uptake of the DCPNS dyslipidemia guidelines (released in 2007) and the hypertension guidelines (released in February 2005). Many thanks in advance for your cooperation!

## Registry Enhancements

DCPNS data management staff continue to find ways to improve the performance

of the DCPNS Registry for all users. In the past number of months, 14 of the 26 on-site Registry users have had the registry moved to the DCPNS server at HITS NS. This has enhanced the stability of the program, improved its overall speed, and allowed for more efficient updates and support. With the permission of the DHAs, we plan to move the remaining DCs in the coming year. A special thanks to all DC staff for their support during this migration process!

Before the end of this fiscal year, we expect to have 5 more DCs using the Registry for local, longitudinal data capture. We are getting very close to full provincial coverage.

## Partnership Projects

### *Development of a Nova Scotia Diabetes Dataset (Repository)*

We are very pleased to report that a provisional Nova Scotia Diabetes Repository (P-NSDR) presently resides on a secure server at the NS Department of Health (DoH). Initial testing of the P-NSDR is complete, and we anticipate discussing the preliminary results with the NSDR Advisory Committee later this winter. We also expect that the validation of the NSDR will be completed soon; at which time, we will finish our project report and recommendations.

### *"Upstream" Screening and Community Intervention for Prediabetes and Undiagnosed Type 2 Diabetes*

This partnership project is also winding down as the data collection phase closed in December 2008, with nearly 400 participants enrolled. Currently, we are working hard to process the data and report the findings to our community partners in AVH and GASHA. We also anticipate sharing our "lessons learned" with other pilot sites across the country at an Information Sharing Workshop to be held in Ottawa this coming March.

### *Quantifying the Burden of Diabetes: Time to Comorbidity and Time to Death*

We are excited to announce that the DCPNS has partnered with other provincial programs, the NS DoH, clinical experts, and the Public Health Agency of Canada to address an articulated need for information about the duration and severity of diabetes in NS by exploiting the DCPNS Registry – an unparalleled data resource for diabetes research. Over the coming months, we will be using survival analysis methodology to describe time to comorbidities and time to death for a cohort of clinically confirmed diabetes cases in Nova Scotia.

The *Diabetes Physical Activity and Exercise Tool-Kit* is making its mark in Nova Scotia and beyond. Thanks to the great efforts of Jonathon Fowles and members of the *Tool-Kit* team, a number of Diabetes Centres are introducing new programs and approaches in keeping with the *Tool-Kit* guidelines. In this issue of the newsletter, you will find a brief update on what's new and what's about to happen (page 8). The *Tool-Kit* is gaining quite a following from across the country as people are anxious to learn more about the tools, the implementation process, and the current evaluation. Added interest has been generated from poster presentations, including the CDA national conference and meetings this past October in Montreal.

### *Diabetes Assistance Program (DAP) for Uninsured Nova Scotians with Diabetes*

With the data collection phase of this project complete, data analysis is now in full swing. Advisory Group members have helped to refine the questions that will be used to describe the study and its findings. We will be sharing this work in a future issue of the newsletter.

**Peggy Dunbar**  
Coordinator, DCPNS

# Pediatric Focus

## Teens with Diabetes and Limited Support

“Teenage years are a time of feeling different, making changes, testing limits, experimenting with decision making, making mistakes, challenging adult rules, and feeling that nothing can go wrong.”<sup>1</sup>

Teens with diabetes may feel anger at having to consider their diabetes first and, as a result, feel that they cannot do things that their friends take for granted. Teen life is busy, meals are irregular, friends are important, and diabetes does not always fit into a schedule; consequently, habits change and diabetes control suffers. Teens may find that social activities create pressure as they try to be one of the gang and still manage their diabetes. Problems with willingness to carry out their diabetes management can surface as diabetes care starts to interfere with their social life.

When considering teens without parental involvement, or those who have little support at home, the effort to manage diabetes can often be too much to manage. Families that lack order and routine may not be able to respond to a teen's needs effectively, or parents with cognitive limitations or mental/physical health problems can significantly impact the teen with diabetes. Often teens refuse to comply or cooperate with their parents around health care needs. Blood glucose monitoring falls by the wayside and insulin is often omitted; therefore, the A1C rises. Often these teens are seen in ER for repeated episodes of DKA. The diabetes team can review with them what has precipitated these events and offer re-education on diabetes care, but this is often not enough. We have found that follow-up for teens needs to be more personalized, and diabetes care needs to be negotiated. Without parental involvement, the need for the diabetes team to be flexible is extremely important. Previous studies have shown that there is an

erosion of parental involvement and support for diabetes management tasks over the early adolescent years.<sup>2</sup> It has been hypothesized that parent-adolescent conflict can be associated with adolescent neglect or rejection of diabetes self-care.<sup>3</sup>

The following should be considered when interacting with a teen that has limited support with diabetes care at home:

- Acknowledge that diabetes is difficult and it does interfere with what he/she wants to do day-to-day.
- Negotiate with the teen what he/she would be willing to do.
- Make a plan around these negotiated parameters (i.e., change insulin timing if it makes it easier to take, accept testing even if only 1-2 times per day, agree to one meter with a memory if recording blood results is not possible). In some cases, switching to a BID insulin routine may result in less missed insulin, although it is not the ideal therapy. Remember, testing 1-2 times regularly is better than no testing at all.
- When reviewing blood sugars, do not criticize or judge for having high blood sugars (at least they are real results). Try to find a way to prevent the high blood sugars by letting the teen explain his/her routine and encourage problem solving, letting the teen offer the suggestions. Teens are more likely to do what they decide themselves than what they are told to do.
- Do not threaten the teen with diabetes complications. They do not care about when they are “old” - twenty is old to them and a long way off.
- Work toward small improvements in A1C by establishing goals that are achievable.

Try not to set unrealistic goals that will end in disappointment or failure.

- Provide positive reinforcement for any effort to improve control.
- Offer frequent follow-up visits at a convenient time to encourage attendance such as after school. These visits are often best if they are short and focus on one issue at a time. Encourage the teen to bring friends if they are his/her biggest support.
- Teens sometimes like to just drop in. If this is the case, try to arrange a plan so they know when would be the best time to visit.
- Provide frequent phone calls. Encourage faxing or e-mailing of blood sugars to the clinic for review, if face-to-face visits are not possible.
- Liaise with Social Work or Psychology to determine the need for additional support such as Community Mental Health or Continuing Care services. In home care, as offered by VON, can sometimes support the teen and family and improve diabetes care. Providing support as basic as insulin supervision can often improve control. The teen knows how to give insulin, but often it is just not being given. External support is often better received in situations where chronic parent-adolescent conflict exists.

The ultimate goal is that the teen will become independent with his/her diabetes care and work toward improving his/her overall diabetes management.

**Janice Smith, RN, BScN, CDE**  
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#### References:

1. www.diabeteskidsandteens.com.au (parents and carers, age 13+). Accessed January 2009.
2. Anderson B, Brackett J, Ho J, Laffel MB. An office-based intervention to maintain parent-adolescent teamwork in diabetes management. *Diabetes Care*. 1999;22(5):713-721.
3. Watts M. Parent-adolescent conflict: exploring content and process issues. *The Diabetes Communicator*. 2008;Jan/Feb:11.

# Research to Practice

## Diabetes Self-Management in Older People with Diabetes

In previous issues of the DCPNS Newsletter, Major Depressive Disorder in Older People with Diabetes (October 2007) and Cognitive Dysfunction in Older Adults with Type 2 Diabetes (April 2008) were reviewed. Both articles revealed that aging, increased duration of diabetes, poor glycemic control, and presence of diabetes complications predispose an older person to significant decline in mental status. This article reviews the implications for diabetes educators in supporting diabetes self-management in this population.

Competent diabetes self-management is an important goal in diabetes education. Self-management implies that the patient and/or caregiver are capable and responsible to carry out various complex daily diabetes self-care behaviors. The ability to learn and incorporate new information remains intact throughout the lifespan. However, information processing; that is, the process of acquiring, retaining, and using the information, can change due to the aging process. This means that the learning process may be slowed down due to factors such as poor glycemic control, decline in vision, hearing, and memory skills.<sup>1</sup> Therefore, health care providers for older people with diabetes must be aware that their older patients are more likely to have learning and memory difficulties than older patients without diabetes.

Unfortunately, older adults with diabetes often are not singled out as a group in need of special attention. Diabetes educators are well informed of the knowledge and skills of diabetes management and principals of adult education that are key elements in facilitating diabetes self-management in older people. However, there are a few major issues that need to be highlighted in an older population

in order to maintain their capacity to self-manage and live well with diabetes and its comorbidities.<sup>1-3</sup>

### **Targets:**

Older adults have more clinically complex medical conditions. They are functionally more diverse than a younger population and life expectancy is more variable. Therefore, individualization of the diabetes care plan is important. For example:

- Clinical targets should be reviewed and agreement reached with all members of the team, especially the patient and family member/caregiver.
- Blood glucose targets may need to be modified from targets established for a younger population.
- Prevention of hypoglycemia is of prime importance because hypoglycemia is more severe and prolonged and can precipitate a cardiovascular event. Conversely, prevention of prolonged hyperglycemic also is crucial to avoid polyuria and nocturia.

### **Falls Prevention:**

Falls prevention is a major focus in the care of older people, especially in older people with diabetes. They have additional risk factors such as polyuria, nocturia, and incontinency from hyperglycemia; decreased cognition from hyperglycemia; confusion and loss of coordination or consciousness from hypoglycemia; and orthostatic hypotension, muscle wasting, and decreased position sense from neuropathy.

### **Medication Therapy:**

Polypharmacy and medication therapy present challenges. Poor vision, poor memory, and dexterity impairment can

lead to medication error. It is important to maintain an up-to-date medication list. The list should be kept by the older person and/or caregiver, physician, and diabetes educator. The medication list needs to be reviewed and documented at each visit.

### **Annual Review:**

At an annual review or anytime in which the older person has experienced an unexplained decline in clinical state or a caregiver has observed increased difficulty with basic daily care, it is reasonable to assess for cognitive function. The Clock Drawing Test is an example of an assessment tool that is quick to administer and could be done any time during a visit, such as while waiting for the appointment in the waiting room. The person is presented with a sheet of paper with a circle and is asked to draw in the numbers of a clock face and the hands to show a specific time. This task requires a number of cognitive abilities including memory, planning, and understanding instruction.<sup>3</sup> If the person is unable to follow through with the exercise independently, then decreased cognition is suspected.

It is important to recognize the specialized needs of the older person with diabetes, to recognize his/her variable capacity for diabetes self-management, and to individualize his/her diabetes care plan accordingly to allow him/her to be safe and live well.

**Brenda Cook**  
Diabetes Consultant, DCPNS

### **References:**

1. The American Association of Diabetes Educators. Special considerations for the education and management of older adults with diabetes. *The Diabetes Educator*. 2003;29(1):93-95.
2. Haas LB. Caring for community-dwelling older adults with diabetes: Perspectives from health care providers and caregivers. *Diabetes Spectrum*. 2006;19(4):240-244.
3. Sculman KI. Clock-drawing: Is it the ideal cognitive screening test? *International Journal of Geriatric Psychiatry*. 2000;15(6):548-561.

# Educator Sharing

## Let's Band Together!!

Our Diabetes Centre (DC) is not unique in its desire to want to help individuals with diabetes exercise, but we recognized that we did not have the knowledge and confidence to guide these people in a meaningful and safe way. For years, we have talked about how to increase activity. We have “active living” classes, give out pedometers and hold pedometer classes, and even provide activity instruction handouts. We are also fortunate at our DC to have the support of and an evolving partnership with the Valley Regional Hospital (VRH) Cardiac Rehab Program (exercise folks on-site).

The Canadian Diabetes Association (CDA) 2003 and 2008 Clinical Practice Guidelines give specific recommendations regarding exercise. While most of us are familiar and comfortable with the aerobic exercise recommendations, many of us struggle with the understanding and implementation of resistance exercise.

We are very excited about the *DCPNS Physical Activity & Exercise Toolkit*. Like many of you, we asked ourselves—Can we do this? Should we do this? Are we qualified? How will we do this in our daily practice? We attended the introduction to the toolkit at the DCPNS workshop in April 2008, and we each attended one of the regional workshops directed by Arlene Perry, Program and Research Coordinator, Diabetes Physical Activity & Exercise Toolkit. Personally, I had no experience with this type of exercise, and I was being asked to teach the exercises to people who had no experience either!! I was concerned about teaching the exercises but now knew much more about the great benefits of resistance bands! I needed to “get with the program.”

So now what? We have the brochures and the bands, and we are trying to include the resistance exercise information at the individual follow-up appointments. Quite

honestly, the resistance band instruction isn't happening often enough. I am sure many DCs face the same time crunch.

So, we simply added “resistance bands” to the classes that we offer. The classes are offered once per month and are scheduled for 90 minutes. The space in our DC really only allows for 6 participants, so when we realized that 11 were coming to the first class, we found another space. So far, we have had three classes with a range of 4-11 participants a class.

### Approach:

- The Stages of Change Questionnaire is not used for this group. We believe that signing up for the class must indicate the “readiness to change” stage.
- The class starts with a short introduction and includes the difference between activity and exercise, the types of exercise, and the recommendations from CDA.
- The group is then asked if anyone has health concerns that would suggest they shouldn't exercise. (Experiences to date have found that participants with shoulder problems feel leg exercises are helpful; and for participants with poor balance, seated exercises work well. It is great to see people identifying what works for them considering some limitations.)
- We then talk about the actual exercise bands.
- Everyone is given a band and pamphlet #2. I try to mimic the way the exercises were demonstrated during the regional workshops. (For my first class, I had a “model” demonstrating the exercises; but since then, I do the class on my own).

On occasion, the resistance band instruction is given one-on-one, using the same information as above. This is usually

precipitated during a follow-up visit when completing the DCPNS flow sheet (questions on activity/exercise) and time allows.

### Lessons Learned/Future Ideas:

- **Practice makes perfect.** To increase my comfort level with each of the exercises, I practice them at my desk and at home. They are good for me too!
- **Regular classes.** I would like to offer the class every other week (2 times a month), with the idea that people could return regularly and new patients could join in. This would offer ongoing support.
- **Ongoing support.** While it was suggested at one of the workshops that we do a telephone follow-up for patients in the class, our DC isn't doing this. However, a suggestion from one participant was that within groups people may want to exchange phone numbers to offer each other support. In discussions among our team, we are comfortable with this as long as it is a voluntary exchange between the members in the group.
- **Community support.** Another participant is investigating the use of a community hall where everyone in the class could go twice a week to do the exercises. We are not sure how this has progressed.
- **Suitability for class.** Because patients choose to register for the class, it was assumed that everyone would be suitable for the class. That being said, we need to be cognizant that those with cognitive impairment (dementia) may find that even the simple instructions are difficult to follow. Being accompanied by a friend or family member may help in guiding completion of the exercises for these individuals.
- **Gender mix.** So far, only women have registered for the classes, unlike other classes we offer that have a mix of females and males. Hopefully, we will have more men register in the future.

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Considering our initial hesitancy, we are pleased to be able to offer the exercise program based on the *Physical Activity and Exercise Toolkit*. It's great to offer something new! This is what makes working in a DC so wonderful; there is always something new to do.

**Bev Harris, PDt CDE**  
Valley Regional Hospital DC

### LETTER TO THE EDITOR

**I just saw a patient who has had Type 1 diabetes for over 50 years and now has neuropathy in both feet.**

**Recently, the right arch has fallen. Since the arch has fallen, a callus has developed on the ball of the foot. If this is not treated properly, the callus will develop into an ulcer. Unfortunately, this individual does not have coverage to see a pedorthist and cannot afford to pay for orthotics.**

**I wish I had something to offer this patient to prevent further problems and perhaps an amputation down the road.**

**As educators, we screen for complications; but when we find a problem with the feet, there is little we can offer to help those who do not have good coverage. Perhaps this is a big part of why our rates of amputation for people with diabetes are so high.**

**Am I missing something? Is there something I can offer this patient?**

**Concerned Diabetes Educator**

## Physical Activity Corner – What's Up With This Tool-kit?

A big "Thank You" to the DCPNS and the diabetes educators for their help with the Diabetes *Physical Activity and Exercise Toolkit*. Positive feedback from both groups, as well as the CDA (with expressed interest in adapting the Tool-kit for use in Canada), has made all our work to date worthwhile. It is exciting to know that Nova Scotia is on the forefront of the physical activity and exercise movement for people with diabetes!

For diabetes educators that may have missed a Tool-kit workshop, or anyone that would like a review, or any other interested parties, there is an extra workshop being held in Halifax on Thursday, February 12th.

### Quick Updates:

- Work on a video to demonstrate resistance-training programs is about to begin. We hope to have this available for the DCPNS provincial workshop in April 2009.
- The formal evaluation of the *Tool-kit* with four Diabetes Centres in Nova Scotia will begin this winter. We are also working with New Brunswick and Newfoundland to assist with this process.
- The Project Coordinator, Arlene Perry, is available (via phone, e-mail or through site visits) to help diabetes educators with anything related to implementation of physical activity and exercise. This includes actual use (review) of the *Tool-kit* principles, starting an exercise class, forming partnerships with interested groups, or the data collection process. Arlene can be contacted via phone at (902) 585-1618 or via e-mail at arlene.perry@acadiau.ca.

Again, the Tool-kit team members would like to thank everyone for their cooperation and enthusiasm related to this project. The team looks forward to forming new partnerships to continue to make this initiative a success!

**Arlene Perry, BS Nutr & Kine**  
Program and Research Coordinator  
Diabetes Physical Activity & Exercise Toolkit  
Acadia University

## Diabetes Camp 2009

Is there any other place you know you can be a kid again, be silly, disco dance around the dining hall, sit around the camp fire singing, wear your clothes backwards, and learn what girl has a crush on a boy in hut 8? Not only that... you will be able to do pump site changes in your sleep, bolus with the best, brush up on your insulin adjustment skills, and learn to carb count. If that isn't enough, there are no meals to cook for a week (the meals are incredible) and only your own plate and cup to wash.

You will be supported by experienced camp Diabetes Educators to enhance your learning experience. Best of all, you will make friends for life and change the lives of the campers forever. Why else do you think we keep coming back! Come join me in my 20th year at camp. Just a warning... it may be addictive!

**Camp Morton: July 11-17th**  
**Camp Maxwell: August 23-30th**



If you are interested, call Janice Knapp (902) 679-2657, Ext. 1367 or Sheilagh Crowley (902) 470-8340.

# News From Around the Province



## News From Around the Province

### Welcome to:

**Kendra Scallion, PDT.** Kendra joins the staff of the Valley Regional Hospital DC (Kentville).

**Natalie Thomas.** Natalie joins the staff of the Eastern Memorial Hospital DC (Canso).

Our very best wishes to **Lois Ferguson, RN CDE, IWK Pregnancy and Diabetes Program.** Lois retires in February after many years at the helm of this program. Lois provided much guidance to the DCPNS through her work on the DCPNS Pregnancy and Diabetes Subcommittee.

If you have a change in any staff (professional or clerical), please remember to let the DCPNS office know ASAP to ensure our contact list remains current. Thanks!

## What's New at the Canadian Diabetes Association

### World Diabetes Day in Nova Scotia

Once again many volunteers and health professionals rallied together last fall to support the UN World Diabetes Day on November 14th. Throughout the province, people of all ages raised awareness about the diabetes epidemic. From blue lightings and proclamations in Cape Breton; to hundreds of youth hooping in a school gymnasium; to health professionals forming blue circles in Annapolis Valley, Nova Scotia; all participated in this global awareness day.

## Public Education Sessions

The Association is pleased to offer several public education sessions throughout the province in the coming months. Health professionals will offer helpful advice including opportunities for guests to ask one-on-one questions at the popular "Ask the Experts" booth on the following dates:

- March 25, 2009 at the Canadian Diabetes Association office in Halifax.
- April 18, 2009 at the Kentville Fire Hall.
- May 23, 2009 at the Sydney Emergency Services Auditorium

Check [www.diabetes.ca](http://www.diabetes.ca) for more information or phone the Nova Scotia Region office at 1-800-326-7712.

## Team Diabetes and the Blue Nose International Marathon

You're invited to join Team Diabetes at the annual Blue Nose International Marathon, May 15-17, 2009. Help raise funds and awareness for diabetes research and education. Participants raise a minimum of \$500 and train to walk or run a 5 km, 10 km, or a half or full marathon.

To learn more about this exciting opportunity, phone Leslie at (902) 453-4232, ext. 3241 or visit [www.teamdiabetes.ca](http://www.teamdiabetes.ca).

## News from the Company Representatives\*\*

**Paul Burke of Sanofi-Aventis** would like to let diabetes care providers know that he now has responsibility for Lantus® and Apidra® insulins for Nova Scotia. Trudy

Murphy has accepted a new role working within the hospitals for Sanofi-Aventis covering Nova Scotia and PEI. Paul can be reached at 1-800-589-3383, Ext. 6375 or [paul.burke@sanofi-aventis.com](mailto:paul.burke@sanofi-aventis.com).

**Greg Cromwell, Territory Manager, Coloplast Canada** is pleased to announce the availability of a complimentary Diabetic Foot Care kit designed for persons at risk for extremely dry skin and for foot ulcer prevention. Coloplast Canada remains a proud long-standing provider of innovative skin (Sween®) and wound care solutions. For more information, including skin & wound care inservice requests, please contact Greg at 1-877-820-7008 press 1, Ext. 7369 or [cagrc@coloplast.com](mailto:cagrc@coloplast.com).

**Mary-Elizabeth Smith**, on behalf of **Abbott Nutrition**, would like to invite all of the educators to look at the new "Diabetes Control for Life" website ([www.diabetescontrolforlife.ca](http://www.diabetescontrolforlife.ca)). This is a free, 24-week, web-based program for patients that includes recipes & meal plans; the latest news on diabetes and tips for managing the condition; more than 70 useful, motivating, and fun articles about healthy eating; active living; and general well-being. For more information, please contact Mary-Elizabeth at 1-800-465-8242, Ext. 2855.

*\*\*This information has been brought to our attention to share with educators around the province. Endorsement is not implied by appearance in the newsletter.*

**We're still not where we're going, but we're not where we were. "**

**Natash Jasefowitz**

**DIABETES**  
CARE PROGRAM  
OF NOVA SCOTIA

**Diabetes Care Program of Nova Scotia**

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