Prince Edward Island Welcomes New Endocrinologist

The Provincial Diabetes Program would like to take this opportunity to welcome Dr. Santhosh Lakshmi to our province. Dr. Lakshmi initiated his practice in Internal Medicine and Endocrinology in Summerside in early October.

Dr. Lakshmi graduated (MBBS) from Madurai Kamaraj University in South India. He completed further post-graduation studies in general medicine at Stanley Medical College, India. He moved to the United Kingdom in 2000 where he completed his general professional training, similar to residency, in Internal Medicine in South west Scotland and obtained MRCP(UK) during this time. He completed a further five years speciality training in Endocrinology and Internal Medicine and qualified as a specialist and obtained MRCP(UK)(Endocrinology and Diabetes) diploma. Dr. Lakshmi worked as a consultant in Endocrinology and General Medicine in South West England.

Previous areas of research include insulin resistance in Caucasian children compared to other populations, continuous glucose monitoring systems, and gestational diabetes. He has presented at various national and international conferences.

He has also been involved in a range of patient education programs, community diabetes services and preventive strategies in patients with diabetes.

Dr. Lakshmi’s main areas of interest include: insulin pumps, antenatal diabetes, patients with complications of diabetes and patient education.

Dr. Lakshmi’s office is located in the Summerside Medical Centre and his office number is 902-432-8173/8181.

We, at the Provincial Diabetes Program, look forward to working with him in serving our clients living with diabetes.

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Gestational Diabetes
Gestational diabetes mellitus is defined as hyperglycemia with onset or first recognition during pregnancy. In Canada the prevalence
of GDM ranges from approx 3.7% in non-Aboriginal populations, to 8 -18% in Aboriginal populations.

The Canadian Diabetes Association 2008 Clinical Practice Guidelines recommend that all pregnant women should be screened for GDM between 24 -28 weeks gestation. If a woman has multiple risk factors, she should be screened during the first trimester and if negative, should be reassessed during subsequent trimesters. These risk factors include:

♀ previous diagnosis of GDM
♀ delivery of a macrosomic infant
♀ member of a high risk population
♀ age > 35 years
♀ polycystic ovarian syndrome
♀ acanthosis nigricans
♀ corticosteroid use

Screening for GDM involves the use of a 50 gram glucose load, given at any time of day, followed by 1 hour PG test.

A value less than 7.8 mmol/L is considered normal. Women who have a 1hr PG result of 7.8 to 10.2 mmol/L should undergo a 75 gram oral glucose tolerance test. A value of ≥ 10.3 mmol/L is considered diagnostic of GDM.

Women with GDM should:

① strive to achieve target glucose values as follows:
   ▶ Fasting: 3.8 to 5.2 mmol/L
   ▶ 1 hr PG: 5.5 to 7.7 mmol/L
   ▶ 2 hr PG: 5.0 to 6.6 mmol/L

② Perform blood glucose monitoring both pre and post prandially to achieve glycemic targets and improve pregnancy outcomes

③ Receive nutrition counseling from a registered dietitian during pregnancy and post pregnancy

④ Avoid ketosis during pregnancy

If a woman with GDM does not achieve glycemic targets within 2 weeks using nutrition therapy alone, insulin therapy should be initiated [Grade D consensus] with up to 4 injections per day considered. [Grade A, level 1A]

As women who have had GDM are defined as high risk of developing subsequent type 2 diabetes, they should be re-evaluated postpartum. [Grade D consensus]. A 75 gram OGTT should be performed between 6 weeks and 6 months postpartum to establish their glucose status. 


**Pediatric Type 2 Diabetes**

Submitted by Carmel Donaldson, RN , CDE

Type 2 diabetes mellitus (T2DM) in children and adolescents is becoming an increasingly important public health concern throughout the world. (Paediatric Diabetes 2008;9:512-526)

It is difficult to detect Type 2 diabetes in children as they may have no symptoms or just mild symptoms. As such, it can go undiagnosed for a long time and a definitive diagnosis of Type 2 diabetes requires blood tests.

The following reflects recommendations for screening for Type 2 diabetes in children and adolescents according to the 2008 CDA Clinical Practice Guidelines.

Children 10 years of age, or younger if puberty is established, should be screened for type 2 diabetes every 2 years using an FPG test if they have 2 or more of the following risk factors [Grade D, Consensus]:

- Obesity (BMI ≥95th percentile for age and gender)
- Member of high-risk ethnic group and/or family history of type 2 diabetes and/or exposure to diabetes in utero
- Signs or symptoms of insulin resistance (including acanthosis nigricans, hypertension, dyslipidemia, non-alcoholic fatty liver disease)
- Impaired glucose tolerance test
- Use of antipsychotic medications/atypical neuroleptics
Very obese children (BMI ≥ 99th percentile for age and gender) who meet the criteria in the above recommendations should have an OGTT performed annually [Grade D, Consensus].

For further information on Type2DM in youth, click on www.ispad.org. (The International Society for Pediatrics and Adolescents with Diabetes). Type2DM is discussed in Chapter 3 of the ISPAD Clinical Practice Guidelines 2009 Compendium.

Message From Our Medical Director
Dr. Lenley Adams, MD FRCPC

As medical director for the Provincial Diabetes Program for the past year, I have had the opportunity to work with a fantastic group of diabetes educators who serve people with diabetes across this province. I have come to appreciate the similarities and differences in diabetes management between provinces and recognize the difficulties in providing optimal care for patients when there are limitations in a system that has suboptimal wait times, restricted access to medications and investigations.

At the Provincial Diabetes Program, significant changes are in development for how we provide care in an effort to provide evidence based medicine to as many people living with diabetes as possible and to support family physicians, clinics and nurse practitioners in diabetes management. One such venture is moving the provision of diabetes education out of centralized clinics and into community clinics. We are looking at new and more efficient ways to deliver diabetes education to people with diabetes. The development of an insulin pump therapy initiation and followup clinic will improve care and reduce travel for people with diabetes who are using this form of therapy.

I look forward to working with Dr. Santosh Lakshmi, an internist/endocrinologist who has recently moved to Summerside, to enhance diabetes care in the western part of PEI, and throughout the province.

Finally I would like to acknowledge Martha St. Pierre for reviving the Provincial Diabetes Program newsletter and redeveloping the website, which will serve as important tools to provide information and education to health care professionals and the public on our program and diabetes related issues.

Pre-Diabetes Screening Project Update
Submitted by Laurie Ann McCardle, Project Co-ordinator

In the inaugural edition of the provincial diabetes newsletter, we were given the opportunity to introduce the Upstream Screening for Pre-diabetes and Undiagnosed Type II Diabetes Research Project. It’s being conducted at Harbourside and Beechwood Family Health Centres in Summerside and O’Leary. In this edition, I’d like to share a short update on our progress and introduce you to the research staff.

Our recruitment figures continue to grow. As of November 1st, we have about 550 patients enrolled in the research. About 350 patients have completed the 2 hour OGTT and filled out the CANRISK (Canadian Risk Assessment Screening Questionnaire). Case detection for the 350 patients that have completed the research shows we have about 15% patients with pre-diabetes and 2-3% of the patients with previously undiagnosed diabetes. Of the patients with pre-diabetes, 32 have agreed to be part of a new intervention program we have developed as part of the research. As with our first-wave research, we have an unexpectedly high number of patients experiencing reactive hypoglycemia.

Making all this happen is our research team. Our Research Nurse, Susan Doucette, is a Certified Diabetes Educator. Susan has seven years of experience working with patients with diabetes and puts this to good use in recruiting, conducting the clinics, group teaching, following up with patients with their test results and making appropriate referrals.
Krista Fraser-MacInnis is the Research Assistant and the main face of the project in O'Leary. She does the recruitment at Beechwood and supports the clinics in her area. She also has the task of doing all the data entry and ensuring its accuracy. Bernadette Campbell, RD, is the newest member of the team. She is conducting the Pre-diabetes Intervention using minimal intervention techniques and motivational learning. Michael Vallis, a clinical psychologist from Dalhousie University, has supported the intervention planning process. Nishka Smith, with the Atlantic Evaluation Group, is conducting an external process evaluation of the Intervention. As the Project Coordinator, my role is to oversee all facets of the research from proposal writing and research ethics submission to participating in the day-to-day operations including recruitment and supporting the clinics. The research is overseen by our two Principle Investigators, Mark Spidel and Deborah Bradley and the members of the Research Steering Committee.

For further information please contact Laurie Ann McCardle, Project Coordinator at Harbourside (902) 438-4091 or lamccardle@ihis.org

**Provincial Diabetes Program Website**

In early January 2010, we will launch our newly revised website. Many thanks to Chris Butler and Michael Smeltzer, Holland College students for their help with this project.

The new website will have features such as: information on classes at all PEI Diabetes Program sites, links to CDA educational information, a forum for having discussions online concerning diabetes, send an e-mail to our educators to ask a question, and an video to introduce our program to you.

Our website address is: [www.peidiabetes.pe.ca](http://www.peidiabetes.pe.ca)

We would appreciate your comments, suggestions and feedback. Take a moment in the New Year, visit our website and post a comment on the forum or send us an e-mail!

Pediatric Type 1 teaching materials

We are pleased to announce that our new “Pediatric Type 1, Information for Children, Teens and Families” binder has been distributed to all hospitals and Provincial Diabetes Centres across PEI in late November. This teaching document reflects the recommendations of the 2008 Clinical Practice Guidelines. We want to thank the members of the Clinical Resource Committee for their efforts in creating this document. Special thanks to the Pediatricians and Pediatric nurses across PEI for their valuable input.

Members of the Provincial Diabetes Program Clinical Resource Team include: Viola Evans Murley, MSW, RSW; Trish Collins, RN, CDE; Libby Logan, RD, CDE, Joanne Sullivan, RN, B.Sc.N, CDE; and Martha St.Pierre, RN, B.Sc.N.

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