



# ACHORD

## Alliance for Canadian Health Outcomes Research in Diabetes

### Building ACHORD Collaborations

---

#### Inside this issue:

Report from the Chair	2
Project Highlights	2
Recent Literature	3
Meet the Staff/Trainee	3
Events and Contacts	4

---

ACHORD will host a retreat on March 18-19, 2004 at The Banff Centre in Banff, Alberta. This retreat will be attended by the ACHORD team as well as invited health services researchers from Alberta. The main purpose of the retreat is to foster collaboration and research initiatives among these researchers who have shown an interest in diabetes and its related comorbidities and complications. This retreat is part of the growth plan for our New Emerging Team Chronic Disease grant funded by the Canadian Diabetes Association, Heart & Stroke Foundation of Canada, Kidney Foundation of Canada and Canadian Institutes of Health Research with additional funding provided by a grant from Alberta Health & Wellness.

During the 2-day retreat, faculty, research staff and trainees will all have the opportunity to provide a general overview of their clinical or research background as well as their current diabetes-related research. We think that this "15 Minutes of Fame" from each attendee will encourage future research alliances and initiatives. Furthermore, we will be hosting all meals including a wine and cheese which should allow for further interaction, but on a relaxed and casual level.

We look forward to "retreating" to the solace of the beautiful Rocky Mountains and anticipate this retreat will be another successful step toward expanding collaborations for ACHORD.

### ACHORD: Seen and Heard

#### Publications:

Simpson SH, Johnson JA, Biggs RS, Tsuyuki RT, for the SCRIP Investigators. Greater effect of enhanced pharmacist care on cholesterol management in patients with diabetes mellitus: a planned subgroup analysis of the Study of Cardiovascular Risk Intervention by Pharmacists (SCRIP). *Pharmacotherapy* 2004;24(3):389-394.

Johnson JA, Kotovych M, Ryan EA, Shapiro AM. Reduced Fear of Hypoglycemia in Successful Islet Transplantation. *Diabetes Care* 2004;27(2):624-625.

Graham MM, Ghali WA, Faris PD, Galbraith PD, Norris CM, Knudtson ML. Sex differences in the prognostic importance of diabetes in ischemic heart disease. *Diabetes Care* 2003;26:3142-3147.

Majumdar SR, Guirguis LM, Toth EL, Lewanczuk RZ, Lee TK, Johnson JA. Controlled trial of a multifaceted intervention for improving quality of care for rural patients with type 2 diabetes. *Diabetes Care* 2003;26:3061-3066.

Maddigan SL, Feeny DH, Johnson JA. A comparison of the Health Utilities Index Mark 2 and Mark 3 in type 2 diabetes. *Medical Decision Making* 2003;23:489-501.

Maddigan SL, Majumdar SR, Toth EL, Feeny DH, Johnson JA. Health-related quality of life deficits associated with varying degrees of disease severity in type 2 diabetes. *Health and Quality of Life Outcomes* 2003;1:78.

#### Presentations:

Maddigan SL, Johnson JA, ACHORD, Institute of Health Economics, Edmonton, Alberta, Canada. Structural Relationships Between Beliefs, Self-efficacy, Adherence to Self-care Regimens, Body Mass Index and HRQL in Type 2 Diabetes. ISOQOL Annual Meeting in Prague, Czech Republic, Nov. 12-15, 2003. [*Quality of Life Research* 2003;12(7):804]. (**Note:** Sheri Maddigan was awarded the New Investigator Award for Best Poster at the ISOQOL meeting).

Maddigan SL, Johnson JA, ACHORD, Institute of Health Economics, Edmonton, Alberta, Canada. Emotion, Pain and Overall HRQL Deficits Associated with Co-morbidities in Type 2 Diabetes. ISOQOL Annual Meeting in Prague, Czech Republic, Nov. 12-15, 2003. [*Quality of Life Research* 2003;12(7):763].

## Report from the Chair



Jeffrey A. Johnson

It is beginning to feel like spring here in Alberta, finally! Despite the deep throes of winter, I am happy to report continued success and advancement of our ACHORD research initiative. Chief among these successes has been the recent publication of the DOVE Study, which appeared in the November 2003 issue of *Diabetes Care*. We have had a number of papers related to the DOVE study, addressing issues related to gaps in treatment of cardiovascular risk in people with type 2 diabetes and also related to the measurement of patient-reported outcomes. We are now in the process of analyzing data from the extended DOVE Follow-up Study, in which we assessed the persistence and generalizability of the DOVE intervention. I think the results of the DOVE Study will have important implications on the overall care and management for people with diabetes in the province of Alberta. I look forward to opportunities to capitalize on this with the evolution of the Alberta Diabetes Strategy 2003-2013, announced last year by Alberta Health and Wellness.

We recently heard positive results of a CIHR grant application on a proposed study of the cost-effectiveness of population-based diabetes prevention programs, which will provide three years of funding to develop population-based cost and prevalence projection models for Canada. By the time you are reading this newsletter, we should also be completed follow-up of patients in the STRIP-Type 2 Study; on the second round of consensus discussions of the quality indicator set for diabetes; and will be busy preparing abstracts for the 2004 CDA/CSEM meeting in Quebec City. More information on these, and other research projects, is available on our ACHORD website.

Finally, our group is excited about the upcoming ACHORD Retreat in Banff, which we fully expect to jumpstart many new collaborations amongst Alberta-based health services researchers interested in diabetes and related comorbidities and complications. We look forward to sharing some of the activities and discussions through our website.

### Project Highlights: The Vascular Intervention Program (VIP): A strategy for medication management of cardiovascular risk in people with type 2 diabetes.

Clinical trials have shown that patients with type 2 diabetes can reap substantial benefits from interventions targeted at risk factors beyond glycemic control. Despite these clinical successes – and strong advocacy from national organizations – uptake of clinical guideline recommendations into daily practice is suboptimal.

Pharmacists are one underutilized resource within the health care team. They can play a key role in the care of people with diabetes because numerous studies have shown that optimal management of hypertension, hypercholesterolemia, and hyperglycemia often requires complex medication regimens. In addition, the recent Commission on the Future of Health Care in Canada identified that pharmacists can make important contributions to the health care team by monitoring therapeutic outcomes to ensure effective medication use and by providing patient education.

The Vascular Intervention Program will investigate the efficacy of an interdisciplinary program designed to optimize medication management of cardiovascular risk in people with type

2 diabetes in Alberta. Pharmacists will work within the well-established framework of pharmaceutical care, collaborate closely with physicians and other health care professionals, and make medication management recommendations based on locally developed treatment algorithms. In addition, the patient's perceived barriers to medication use will be addressed. Patients identified through the Capital Health Regional Diabetes Program as requiring education only will be eligible for study enrollment. Those who accept an invitation to learn more about cardiovascular risk factors and consent to participate will be randomized to an appointment within the next month or after a six-month period. The primary outcome will be the proportion of patients achieving a 10% reduction in blood pressure; representing an important and positive improvement in cardiovascular risk management that has been used in recent studies. Cost-effectiveness of the intervention program will be evaluated from the perspective of a government-funded health care system. Humanistic outcomes, in terms of patient satisfaction and health related quality of life, will be evaluated using established surveys.

---

*The VIP study will examine the impact of an interdisciplinary care program on heart disease risk in people with Type 2 diabetes.*

---

## Recent Literature: Consensus development conference on antipsychotic drugs and obesity and diabetes. *Diabetes Care* 2004;27(2):596-601.

Second-generation antipsychotics (SGAs) have become the treatments of choice of many illnesses associated with psychotic symptoms because they are more effective at treating the negative, cognitive, and affective symptoms of psychotic illness compared to the older first-generation agents, and associated with less extrapyramidal side effects and tardive dyskinesia. The SGAs currently available in Canada are clozapine, olanzapine, quetiapine, and risperidone.

Although there are a number of benefits associated with the use of SGAs, there is growing evidence that their use is associated with lipid abnormalities, dramatic weight gain, and diabetes mellitus. However, the relationship between SGAs and the development of these major cardiovascular disease (CVD) risk factors is unclear. To gain a better understanding of the relationship, the American Diabetes Association, the American Psychiatric Association, the American Association of Clinical Endocrinologists, and the North American Association for the Study of Obesity recently gathered evidence and developed a consensus position on SGAs and their associated side effects.

Given the evidence and information available, the consensus statement suggests that individuals taking SGAs should receive appropriate baseline screening and ongoing

monitoring. Baseline and follow-up measurements should include body-mass index, waist circumference, personal and family history of obesity, diabetes, hypertension, CVD, blood pressure, fasting plasma glucose, and a fasting lipid profile. The panel also recommends nutrition and physical activity counseling for all patients starting treatment with a SGA. Patients that develop diabetes, hyperlipidemia, or significant weight gain should initially be switched to an agent associated with less of a risk of these side effects. If this is not possible, or the side effects do not resolve after switching, all patients should receive appropriate care and be referred to specialized services, if needed.

Although the SGAs are of great benefit to a large number of individuals affected by psychiatric illness, their use is also associated with significant risks for CVD risk factors including diabetes, hyperlipidemia, and obesity. Baseline monitoring and close follow-up in patients taking SGAs is extremely important to prevent the development of these side effects. As well, more research is needed to provide more information on the relationship between SGAs and obesity, diabetes, and lipid abnormalities. The panel suggests randomized controlled trials, preferably with drug-naïve subjects, to evaluate weight gain, diabetes, and lipid abnormalities in patients using SGAs.

---

*Individuals taking second-generation antipsychotics should be closely monitored for the development of cardiovascular risk factors including diabetes, obesity, and hyperlipidemia.*

---

## Meet the Trainee: Lauren Brown, BSc. Pharm.

Lauren Brown received her Bachelor of Science in pharmacy at the University of Alberta in 2001. She then went on to complete a hospital pharmacy residency in the Capital Health region in 2002. Lauren is a research trainee with ACHORD and is currently working on her Master of Science in clinical epidemiology at the University of Alberta. Lauren's MSc thesis is on the incidence of depression and diabetes. Once Lauren has completed her MSc, she plans to pursue a PhD.

Lauren also works as a hospital pharmacist in psychiatry at the Grey Nuns hospital and lectures at the Faculty of Pharmacy at the University of Alberta in the areas of diabetes, evidence-based medicine, and psychiatry. Lauren's current research interests are the relationship between diabetes and mental health, including schizophrenia and depression. As well, she is interested in the affect of certain treatments of schizophrenia, specifically atypical antipsychotics, and their possible link to causing diabetes.



Lauren Brown



**INSTITUTE of HEALTH ECONOMICS**

ADVANCING KNOWLEDGE. IMPROVING HEALTH.

**Address**

#1200, 10405 Jasper Avenue  
Edmonton, Alberta  
Canada T5J 3N4

**Phone**

(780) 448-4881

**Fax**

(780) 448-0018

**Websites**

<http://www.achord.ca>  
<http://www.ihe.ca>



# ACHORD

## Alliance for Canadian Health Outcomes Research in Diabetes

### ACHORD Chair

**Dr. Jeffrey Johnson**

*University of Alberta  
and*

*Institute of Health Economics*

### Staff & Research Trainees

Ms. Samantha Bowker

Ms. Lauren Brown

Mr. Dean Eurich

Ms. Maria Kotovych

Ms. Jackie Lewyk

Dr. Nan Luo

Ms. Sheri Maddigan

Dr. Scot Simpson

Ms. Alison Supina

Ms. Betsy Thomas

### Why this Newsletter?

The purpose of the ACHORD Newsletter is to keep you updated on the activities of the ACHORD group and to provide reviews of recent, relevant diabetes literature. The newsletter is published three times a year.

You can expect to see the following in every issue:

- *Report from the Chair*
- *Meet the Staff/Trainee*
- *ACHORD Project Highlights*
- *ACHORD Seen and Heard*
- *Review of Recent Literature*

If you have any questions about the newsletter, please call Jeffrey Johnson or any of the ACHORD staff at the Institute of Health Economics at (780) 448-4881.

### Diabetes Events

American Diabetes Association  
64th Annual Scientific Sessions  
June 4-8, 2004, Orlando, Florida

### ACHORD Events

ACHORD Retreat, The Banff Centre,  
Banff, Alberta, March 18-19, 2004

ACHORD Invitational Research Forum  
September 23-25, 2004, Details TBA