



ACHORD

Alliance for Canadian Health
Outcomes Research in Diabetes

5th Annual ACHORD Retreat, Banff, AB March 13-14, 2008

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ACHORD hosted its annual Retreat on March 13-14, 2008 at the Banff Center. This small, informal meeting provided an opportunity for ACHORD investigators, collaborators and students to interact, share research updates, and plan for continued growth of the ACHORD Research program.

Our physical activity this year was a guided hike around Banff, the weather cooperated and all who participated enjoyed the beautiful scenery as well as the fresh air plus had the added benefit of exercise! Thank you to Peter Senior for bringing his camera along on the hike.

Thank you to all who presented at the Retreat:

The last but certainly not least item of the Retreat was a discussion led by **Jeff Johnson** regarding the ACHORD Team Grant Applications. There were discussions on the CIHR Team Grant on which we are awaiting the results as well as planning in relation to the upcoming AHFMR Interdisciplinary Team Grant competition. ACHORD plans on submitting an application for this competition, including collaborations with pharmacologists at the University of Alberta.

- **Jeff Johnson and Stephanie Vermeulen** on ADSS
- **Doreen Rabi** on Sex Differences in CV Drug use in Diabetes
- **Dean Eurich** on CV Drug use and overall mortality in Type 2 Diabetes
- **Alun Edwards and Doreen Rabi** on the ACCORD Trial
- **JM Gamble** on the Relationship between Insulin Exposure and All Cause Mortality
- **Samantha Bowker** on Antidiabetic Therapies and Cancer Mortality in Type 2 Diabetes: Assessing Time-Varying Exposure
- **Robin Lau** on Projecting the Future Burden of Diabetes in Alberta (2006-2036).

Thank you to everyone who attended the Retreat, this event was a success because of you. Plans for the ACHORD Retreat 2009 at the Banff Centre are already underway; we are looking at March 5-6, 2009 as the date for next year's retreat, so mark those dates in your calendar!



Report from the Chair



Jeffrey A. Johnson

Hard to believe spring is already here, we have had a very busy and productive winter. The ACHORD Retreat was held in Banff on March 13-14, 2008. We had a lot to celebrate this year, as Dean Eurich found out that his application for an AHFMR New Investigator Award was successful. This award is for 7 years. Dean and Michelle had a baby girl the week prior to the retreat, Teagan, a little sister for their daughter, Rikki. We also received news at the retreat that Scot Simpson has been promoted to Associate Professor in the Faculty of Pharmacy & Pharmaceutical Sciences. Lauren Brown has been recognized for her work on Antidepressants and Type 2 Diabetes; she was featured on Global Edmonton and Calgary as well as CTV. Articles about Lauren's work were in local newspapers and even generated international headlines! Lauren also received news that her application for a 3-year CIHR Fellowship award was successful.

ACHORD continues to be involved in presentations at local and international meetings. The ACHORD Noon Seminars started up again in February where I presented the first one. JM Gamble presented at the second seminar, Samantha Bowker is scheduled to present on May 6. JM Gamble had a poster presentation at the 6th

Annual Cochrane Symposium in Edmonton in March. JM also has a poster presentation at the 68th American Diabetes Association Annual Meeting in San Francisco in early June; Samantha Bowker has an oral presentation on her PhD research on diabetes medications and cancer outcomes, and I will be presenting on the ADSS data on diabetes trends in the under 20 population.

Local dissemination for ADSS continues to keep us active in the past few months. Stephanie Vermeulen and I have done presentations in the Palliser Region, in Brooks & Medicine Hat. In fact, we have been invited back to Medicine Hat to present on two additional occasions, to the Board and Executive, and also for their upcoming CDM workshop. We were in Red Deer (David Thompson Region) in March, went to Fort McMurray (Wood Buffalo Region) in April with Westlock (Aspen Region) planned for June. We are hoping to get to the Peace Region and East Central Region in the near future as well.

The coming months will continue to be busy, as we are preparing for an AHFMR team grant and working on our ongoing projects. I look forward to reporting our ongoing progress in upcoming newsletters.

ACHORD Seen and Heard (cont)

Recent Publications

Willi C, Bodenmann P, Ghali WA, Farris PD, Cornuz J. Active smoking and the risk of type 2 diabetes: a systematic review and meta-analysis. *JAMA*. 2007 Dec 12;298(22):2654-64.

Ng E, Dasgupta K, Johnson JA. An algorithm to differentiate diabetic respondents in the Canadian Health Community Health Survey. *Stats Canada Catalogue 82-003, Health Reports* 2008;19(1):71-79.

Brown LC, Majumdar SR, Johnson JA. Type of antidepressant therapy and risk of type 2 diabetes in people with depression. *Diabetes Research and Clinical Practice* 2008;Jan;79(1):61-7.

Majumdar SR. Impaired fasting glucose and impaired glucose tolerance, as well as known diabetes, increased risk for death within 5 years. *ACP J Club*. 2008 Jan-Feb;148(1):24.

Eurich DT, Majumdar SR. Review: thiazolidinediones increase congestive heart failure but not cardiovascular deaths in prediabetes or type 2 diabetes. *ACP J Club*. 2008 Mar-Apr;148(2):39.

MacKinnon NJ, Hartnell NR, Black EK, Dunbar P, Johnson JA, Halliday-Maher S, Pattar R, Ur E. Development of clinical indicators for Type 2 Diabetes. *Can Pharm J* 2008;141(2):120-8.

Gamble JM, Simpson SH, Brown LC, Johnson JA. Insulin versus an oral antidiabetic agent as add on therapy in type 2 diabetes after failure of an oral antidiabetic regimen: a meta analysis. *Open Medicine* 2(2)e1-13.

Recent Presentations

ADSS Dissemination, Public and Brooks Diabetes Association Board Members, Palliser Region, Brooks, AB January 16, 2008.

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Recent Literature: Brown LC, Majumdar SR, Johnson JA. Type of antidepressant therapy and risk of Type 2 Diabetes in people with depression. *Diabetes Research and Clinical Practice* 2008;79:61-67.

What was the study about?

Previous research has demonstrated an increased risk of type 2 diabetes in people with a history of depression. One of the postulated mechanisms behind this relationship is the use of antidepressant medications to treat depression, as many antidepressants are associated with weight gain and sedation. Very little information exists, however, on the risk of type 2 diabetes associated with antidepressant therapy. The objective of this study was to evaluate the differential risk of type 2 diabetes in people with depression taking antidepressant therapy. We evaluated people taking selective serotonin reuptake inhibitor (SSRI) monotherapy, tricyclic antidepressants (TCA) and SSRIs taken together, and people who had multiple antidepressant switches, compared to people taking TCA monotherapy, for the risk of type 2 diabetes. The databases of Saskatchewan Health were utilized to complete this study.

What were the results of the study?

We identified 2391 individuals with incident depression who were taking antidepressant therapy. Compared to individuals taking TCA monotherapy, concurrent use of SSRIs and TCAs was associated with a significantly increased risk of type 2 diabetes (adjusted OR: 1.89; 95% CI: 1.35 – 2.65). The risk of type 2 diabetes in people who had multiple antidepressant switches or were taking SSRI monother-

apy was not significantly different from people taking TCA monotherapy (adjusted OR: 1.11; 95% CI: 0.83 – 1.48; adjusted OR: 1.05; 95% CI: 0.86 – 1.28, respectively).

What are the implications of the study?

This study demonstrated an increased risk of type 2 diabetes associated with taking TCA and SSRI concurrently compared to TCA monotherapy. There are a number of possible reasons for this relationship. The first possibility is additive side effects associated with using TCA and SSRI antidepressants together, potentially increasing weight gain and sedation compared to using antidepressant monotherapy. Another possibility is the use of more than one antidepressant is a marker for more severe depression compared to antidepressant monotherapy, and severe depression symptoms may increase the risk of type 2 diabetes. It must be noted that individuals who had multiple antidepressant switches, which could also be a marker for depression severity, did not have a significantly increased risk of type 2 diabetes.

The results of this study indicate antidepressant therapy may need to be tailored to a depressed individual's risk of developing diabetes, and patients on combination therapy require close monitoring regarding the development of glucose intolerance.

This study demonstrated an increased risk of type 2 diabetes associated with taking TCA and SSRI concurrently compared to TCA monotherapy.

ACHORD Seen and Heard (cont)

Recent Presentations (cont)

ADSS Dissemination, Living Healthy Team, Palliser Region, Brooks Health Centre, Brooks, AB January 16, 2008.

ADSS Dissemination, Seniors Presentation, Palliser Region, Chinook Village, Medicine Hat, AB January 17, 2008.

ADSS Dissemination, Health Care Providers Presentation, Palliser Region, Medicine Hat Regional Hospital, Medicine Hat, AB January 17, 2008.

ADSS Dissemination, Public, Seniors and Recreation Technician Assistants, Palliser Region, Medicine Hat College, Medicine Hat, AB January 17, 2008.

ADSS Dissemination, Physician Presentation, Palliser Region, Medicine Hat Regional Hospital, Medicine Hat, AB January 17, 2008.

ADSS Data Elements and Quality Indicators, Calgary Health Region members and Physicians, Calgary Health Regions, Foothills Hospital, Calgary, AB January 18, 2008.

ADSS Dissemination, Community Diabetes Projects funded by PHAC Presentation, Canada Place (Public Health Agency of Canada), Edmonton, AB January 30, 2008.

ADSS Analysis of Epidemiologic Trends from the ADSS: Urban and Rural Differences in Incidence and Prevalence, ACHORD Presentation, University of Alberta, Edmonton, AB February 4, 2008.

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ACHORD Chair

Dr. Jeffrey Johnson

University of Alberta

Department of Public Health Sciences

Staff & Research Trainees

Ms. Samantha Bowker
Ms. Lauren Brown
Mr. Halim Elamy
Dr. Dean Eurich
Mr. JM Gamble
Mr. Greg Hugel
Mr. Robin Lau
Ms. Sherry Lydyniuk
Ms. Maria Santana
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ACHORD Seen and Heard (cont from Page 3)

Recent Presentations (cont)

ADSS Dissemination, Board for Palliser Health Region, Medicine Hat Regional Hospital, Medicine Hat, AB February 21, 2008.

ADSS Dissemination, Health Care Professionals from Medicine Hat, Oyen and Bow Island (Oyen and Bow Island participated through Telehealth), Palliser Health Region, Medicine Hat Regional Hospital, Medicine Hat, AB February 21, 2008.

Gamble JM, Simpson SH, Brown LC, Johnson JA. Insulin versus an oral antidiabetic agent as add-on therapy in patients with type 2 diabetes failing their current oral antidiabetic regimen: a meta-analysis. 6th Annual Canadian Cochrane Symposium, March 6-7, 2008, Edmonton, AB.

ADSS Dissemination, Health Care Professionals from David Thompson Region, Red Deer 5010 Building, Red Deer, AB March 12, 2008.

The Alberta Diabetes Surveillance System – Local Information for Local Planning. Alberta Health and Wellness Hot Topics Speakers Series, Alberta Health and Wellness, Edmonton, AB April 4, 2008.

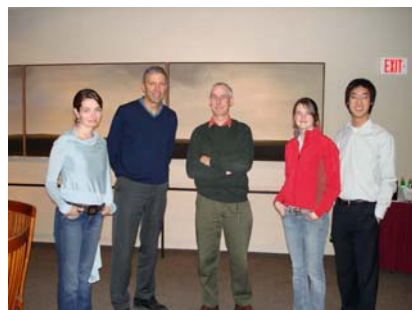
ADSS Dissemination, Dr. Brent Friesen, Medical Officer of Health, Northern Lights Region, Northern Lights PCN Office, Fort McMurray, AB April 8, 2008.

IHE Consensus Conference on Self Monitoring in Diabetes and its Effect on Policy, 2008 Health Boards Conference: Leading the way in healthcare: Understanding, anticipating and managing risk. The Westin Edmonton Hotel, Edmonton, AB. April 16, 2008.

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.

If you have any questions about the newsletter, please call Jeffrey Johnson or any of the ACHORD staff at the University of Alberta at (780) 492-7317.



ACHORD Events

6th Annual ACHORD Retreat

March 5 & 6, 2009

The Banff Centre

Banff, Alberta, Canada

