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THE INCIDENCE OF MULTIPLE SCLEROSIS AMONG FIRST NATIONS PEOPLE IN ALBERTA, CANADA. *L W Svenson, S . Warren, L M Metz, D P Schopflocher (Alberta Health and Wellness, Edmonton, Alberta T5J 2N3)

MS incidence is thought to be low among North American Aboriginals based on anecdotal evidence. This study describes the incidence of MS among First Nations people of Alberta, Canada. Physician fee-for-service and hospital records for the years 1985 – 2002 having a diagnosis of MS were extracted from Alberta Health Care Insurance Plan data. An individual was considered a case if he/she had had 2 or more physician visits for MS or 1 or more hospitalizations. The federal government pays the health insurance premium for First Nations with treat status allowing for their identification. A case was designated incident if there was no record of services for MS for at least 5 years to reduce the risk of erroneously classifying prevalent cases as incident. Incidence rates (95% confidence intervals) were calculated for each year from 1994 – 2002 per 100,000 population, age-standardized to the 1996 Canadian population. Incidence rates for First Nations were: 1994 = 12.4 (±10.2); 1995 = 7.8 (±7.2); 1996 = 7.5 (±6.2); 1997 = 4.7 (±5.0); 1998 = 6.6 (±5.3); 1999 = 8.2 (±5.5); 2000 = 11.9 (±7.8); 2001 = 8.4 (±6.5); 2002 = 7.6 (±5.1). Incidence rates for the Alberta general population calculated for the same years, in the same way were typically close to three times the First Nations' rates. MS incidence among First Nations is lower than among the general Alberta population, but it is not low by worldwide standards. Although First Nations may have a lesser genetic predisposition to MS, some environmental factor in Alberta may increase their risk.

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PROSPECTIVE STUDY OF DIABETES, GENDER, AND SUBSEQUENT RISK OF ALZHEIMER'S DISEASE: THE CACHE COUNTY STUDY ON MEMORY, HEALTH, AND AGING. *G Charoonruk, R Munger, H Wengreen, C Corcoran, K Hayden, L Bastian, J Tschanz, M Norton, J Breitner, K Welsh-Bohmer (Utah State University, Logan, UT 84335)

The role of diabetes in Alzheimer's disease (AD) is uncertain because of inconsistent findings in population-based studies but is of public health importance because of the sharply rising occurrence of obesity and diabetes worldwide. The Cache County Study on Memory, Health, and Aging is a prospective study of cognitive decline and AD in a cohort of 5092 Utah men and women aged 65–104 years at baseline in 1995. Type II diabetes mellitus was assessed by self-report of a physician's diagnosis. Incident AD was assessed in multi-stage screening, clinical assessment protocols, and clinical consensus conferences during follow-up examinations in 1998–99. Participants with dementia at baseline or dementia other than AD at follow-up were excluded from analyses. Logistic regression models were used to estimate the relative risk of AD while controlling for age, education, smoking, alcohol intake, APOE genotype, body mass index, and history of hypertension, hypercholesterolemia, stroke, and myocardial infarction. In the 3.5 year period of follow-up, non-diabetic women had a higher incidence of AD compared to non-diabetic men (4.0 vs. 1.7 percent); however among diabetics the incidence of AD was lower among women compared to men (3.1 vs. 4.0 percent). The multivariate-adjusted relative risk (RR) of AD in diabetics vs. non-diabetics was nearly 4-fold higher among men (RR = 3.71, 95% confidence interval (CI) = 1.54, 8.58) but was not elevated among women (RR = 1.01, 95% CI = 0.35, 2.48). In conclusion type II diabetes mellitus was associated with a subsequent increase in the risk of AD in men but not in women in Cache County, Utah. The interaction between diabetes, gender, and risk of AD may explain the inconsistent findings of previous studies that did not consider the effects of gender and should be explored further.

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INSOMNIA AND DAYTIME SLEEPINESS: RISK ATTRIBUTABLE TO RESTLESS LEGS SYNDROME, BMI, SMOKING, AND ALCOHOL AMONG VA OUTPATIENTS. *C C Bourguet, R P Steiner, S K Ober, K R Baughman, H D Shapiro (NEOhio Universities College of Medicine, Rootstown, OH 44272)

Insomnia and daytime sleepiness are common among patients with Restless Legs Syndrome (RLS). This research was planned to estimate the prevalence of insomnia and daytime sleepiness and to estimate the contribution of RLS and other behavioral factors to these complaints in primary care patients. Telephone interviews were conducted with 1761 patients recruited at 12 VA primary care clinics in Ohio. Measures of RLS, insomnia, daytime sleepiness, alcohol dependence, smoking and BMI were included. Logistic regression was used to obtain odds ratios that, with risk factor prevalence, estimated attributable risks (AR). Patients were aged 22 to 92. Eighty percent of the sample were male, 41% had a BMI of 30 or over, and 46% had post high school education. The prevalence of RLS symptoms at least once per week was 21% for women and 13% for men. Moderate or severe insomnia was more common in women (27% compared to 14% for men). Both genders had a 7% prevalence of daytime sleepiness. In predicting insomnia, the attributable risk was 22% ($p<.0001$) for RLS, 27% ($p=.003$) for a BMI of 30 or over, 4% ($p=.007$) for alcohol dependence, and 6% ($p=.12$) for smoking. In predicting daytime sleepiness, the AR for insomnia was 28% ($p<.0001$) and 7% ($p=.006$) for RLS. Obesity, smoking, and alcohol dependence did not have a significant relationship to daytime sleepiness beyond their effects on insomnia. Only 10 of the 243 patients who reported RLS symptoms had received a diagnosis. RLS, obesity, alcohol dependence, and gender, are significant risk factors for insomnia. Insomnia, in turn, is a significant risk factor for daytime sleepiness. RLS is a significant risk factor for daytime sleepiness, even after controlling for insomnia. Despite the impact of RLS on insomnia and daytime sleepiness, few patients are diagnosed with RLS by their physicians. Supported by the US Army Medical Research and Materiel Command and Pfizer Pharmaceutical Corporation.

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RACIAL DISPARITIES IN LIPID MANAGEMENT IN PATIENTS WITH DIABETES. *M Pladevall, J Elston Lafata, K Tunceli, G Divine, J Simpkins, L K Williams (Center for Health Services Research, Detroit, MI 48202)

Aim: To describe lipid management over time in a bi-racial (White/African-American) cohort of patients with diabetes (DM) and evaluate whether care receipt differed between races in an equal access environment. Population: Retrospective cohort of 11,411 HMO enrollees aged 18+ years (50.8% female; 53.2% White, 43.1% African American, and 3.7% other). Design: Automated claims and clinical databases were used to identify a cohort of patients with DM in 1997/1998 that was retrospectively followed through 2002. Overall and race stratified rates of hypercholesterolemia screening, treatment and goal achievement were estimated in each follow-up year. Treatment was determined by a claim for lipid lowering agents and goal attainment was defined as low density lipoprotein cholesterol (LDL-C) less than 100 and 130 mg/dL. Differences during the follow-up period were tested using chi square tests, with generalized estimating equation logistic models used to account for time effects. Results: Tests for time trends were all significant ($P<0.001$). From 1999 to 2002, rates of testing, treatment and goal attainment improved over time for both races. Rates of testing for Whites and African Americans increased from 60.7% to 76.8% and from 48.2% to 71.1%, respectively. Rates of treatment for Whites and African Americans increased from 34.6% to 53.4% and 26.1% to 45.7%, respectively. Rates of goal achievement at LDL-C <100 mg/dL for Whites and African Americans increased from 34.9% to 42.5% and from 23.9% to 30.8%, respectively. Finally, rates of goal achievement at LDL-C <130 mg/dL for Whites and African American increased from 71.2% to 79.7% and 59.1% to 67.6%, respectively. Racial disparities favoring the White cohort were evident for all rates in each year. Conclusions: Our preliminary findings show that racial disparities in rates of testing tended to decrease over time, while those associated with LDL-C goal achievement and treatment with lipid lowering drugs tended to persist over time. Overall gains in all rates were achieved between 1999 and 2002 but the percentage of these high risk patients at the current recommended LDL-C goal (i.e., LDL-C <100 mg/dL) remains low regardless of race.

* = Presenter; S = The work was completed while the presenter was a student