



MEDIA RELEASE

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Youth on antipsychotics at increased risk of metabolic side effects such as obesity and Type 2 diabetes

Provincial Mental Health Metabolic Clinic to assess and treat youth, provide education

(Vancouver – November 11, 2009) – Youth taking certain types of anti-psychotic medications have three times the risk of developing abnormally high blood sugars (pre-diabetes) or Type 2 diabetes and two times the risk of becoming overweight or obese, according to results of a new study published today in the *Canadian Journal of Psychiatry*.

Approximately 6,000 youth in B.C. use these medications and prescription rates are rising. However, the principal investigators of the study emphasized to patients and their caregivers that, despite these findings, patients should continue to take these medications as prescribed by their physicians.

“Although these medications can have significant side effects, as our study demonstrates, in many cases these medications are very important for managing mental health issues in the children who take them,” says study co-author Dr. Jana Davidson, Medical Director, Child and Adolescent Mental Health & Addiction Programs at BC Children’s Hospital, an agency of the Provincial Health Services Authority (PHSA). “I want to emphasize that people should continue taking these medications as prescribed by their physicians but to discuss any concerns they have with them.”

Davidson is also a clinical associate professor and head of the Child & Adolescent Psychiatry Program in the University of British Columbia’s (UBC) Department of Psychiatry.

Early review of this data prompted PHSA to support the expansion of the existing Adult Metabolic Monitoring Clinic within BC Mental Health & Addiction Services (BCMHAS), an agency of PHSA, to the Child & Adolescent Mental Health Programs at BC Children’s. The expansion of this service to a specific program for child and adolescent mental health is the first of its kind in Canada. It is scheduled to begin in early 2010 and more details about how to access the service will be available soon.

For the study, researchers reviewed the charts of 432 youths with an average age of 13 who were admitted between Jan. 1, 2005 and July 31, 2007 to the Child and Adolescent Psychiatry Emergency (CAPE) Unit at BC Children’s.

Their diagnoses included schizophrenia and other psychotic disorders, mood and anxiety disorders, disruptive behaviour disorders such as ADHD (attention deficit hyperactivity disorder), pervasive developmental disorders such as autism spectrum disorders, adjustment disorders and substance abuse.

Some of the youth were treated with a class of medications called atypical or second-generation antipsychotics that include risperidone (trade name: Risperdal®), quetiapine (Seroquel®), olanzapine (Zyprexa®), and clozapine (Clozaril®). Treatment often included other medications but the statistical analysis indicated these didn’t significantly contribute to the metabolic side effects.

The study showed that 21.5 per cent of the youth treated with these medications had pre-diabetes or Type 2 diabetes compared to 7.5 per cent of the youth who weren’t taking the drugs. The researchers also found that 57 per cent of youth on these antipsychotics were overweight or obese, compared to 23 per cent of youth who weren’t on these medications.

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“In seeing these rates of obesity and diabetes, we’re worried about the possible increased risk of heart disease in these kids, who could be on these medications for years,” says Dr. Dina Panagiotopoulos, the study’s principal investigator and a clinician scientist at the Child & Family Research Institute (CFRI), a pediatric endocrinologist at BC Children’s and assistant professor of endocrinology in the Department of Pediatrics at UBC.

Between 2002 and 2006, prescriptions of atypical antipsychotics for youth in B.C. increased by an estimated 22 per cent from one in 200 youth to one in 154 youth.

“Given the study data and growing magnitude of the issues, we’ve implemented a protocol in the hospital unit to ensure the children are appropriately monitored for their metabolic status,” says Davidson.

“We’re developing educational resources for families about these risks, and we’re piloting a resource handbook for physicians on metabolic monitoring when using atypical or second generation antipsychotics in children,” adds Panagiotopoulos. “If families and caregivers are aware of the potential complications of these medications, then they can mitigate the risks with dietary guidance, physical activity and strategies to prevent weight gain.”

Presently, there are no standardized clinical guidelines in Canada that address metabolic complications in youth on second-generation antipsychotics.

The study was funded by CFRI, the Canadian Diabetes Association and an unrestricted research grant from AstraZeneca Canada. Rebecca Ronsley, Research Assistant in the Department of Pediatrics at UBC, was a study co-author.

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CFRI conducts discovery, clinical and applied research to benefit the health of children and families. It is the largest institute of its kind in Western Canada and works in close partnership with UBC and PHSA agencies BC Children’s Hospital and Sunny Hill Health Centre for Children, BC Women’s Hospital & Health Centre as well as the BC Children’s Hospital Foundation. CFRI has additional important relationships with BC’s five regional health authorities and with BC academic institutions Simon Fraser University, the University of Victoria, the University of Northern British Columbia, and the British Columbia Institute of Technology.

BC Children’s Hospital is the province’s only pediatric hospital and home to many specialized pediatric services available nowhere else in the province, including BC’s trauma centre for children, pediatric intensive care, kidney and bone marrow transplants, open heart surgery, neurosurgery and cancer treatment. Sunny Hill is the provincial facility that offers specialized child development and rehabilitation services to children and youth.

BCMHAS provides unique and specialized mental health services to British Columbians. The assessment and treatment of addictions is an integral part of the agency’s programs, which include: Adult Tertiary Psychiatry and Geriatric Psychiatry Services, Forensic Psychiatric Services, Child and Adolescent Mental Health & Addiction Services located at BC Children’s Hospital and the Provincial Specialized Eating Disorders Program for youth and adults. The agency also makes significant contributions in the areas of research and knowledge exchange in the field of mental health. BCMHAS is also an agency of the PHSA.

UBC is one of Canada’s largest and most prestigious public research and teaching institutions and consistently ranks among the top 40 universities in the world. It offers a range of innovative undergraduate, graduate and professional programs in the arts, sciences, medicine, law, commerce and other faculties. UBC has particular strengths in biotechnology, ranks in the top 10 universities in North America and number one in Canada for commercializing research and for its patent activity in the life sciences.

PHSA plans, manages and evaluates selected specialty and province-wide health care services across B.C., working with the five geographic health authorities to deliver province-wide solutions that improve the health of British Columbians. With more than 11,000 employees and an annual budget of over \$1.5 billion, the PHSA operates provincial agencies like BC Children’s Hospital, plans and funds specific specialized health care services like trauma, critical care and thoracic surgery, and delivers a variety of specialized programs and services throughout the province. PHSA is one of the largest academic health organizations in Canada, with about 2,000 people involved in research activities supported by \$150 million in research funding each year.