

Wednesday, April 22nd, 2015

LSC 3 - Life Sciences Centre

2350 Health Sciences Mall

12-1pm



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“Cardiovascular Disease in Children Treated with Second-Generation Antipsychotics.”

Approximately 1 in 7 (1.2 million) Canadian children and youth under age 19 yrs are estimated to have a mental health condition and many will be treated with second-generation antipsychotic (SGAs) medications. Recent estimates suggest that approximately 5600 children in British Columbia are undergoing SGA treatment. However, use of SGAs comes with concern because SGA treatment is associated with rapid weight gain and other comorbidities such as hypertension, dyslipidemia, and impaired glucose tolerance. Recent estimates further suggest that SGA-treated children have a 1.5 to 3-fold greater risk of type 2 diabetes compared to those who are not treated. The mechanisms of SGA-induced weight gain and metabolic side effects are not known. Interestingly, not all SGA-treated children develop these side-effects suggesting there are underlying genetic and/or lifestyle factors that predispose a child. Targeted genetic analyses have identified interactions of SGA-treatment with gene variants in pathways regulating methyl metabolism and appetite control, which may be useful in predicting children at risk for metabolic side effects. Further clinical and mechanistic studies have identified effects of SGAs on pancreatic beta cell function and have begun to characterize the effects of SGAs on cardiovascular function in children.