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December 1, 2006, 12:01 a.m. ET

Release No. 06-71

**Study Indicates a Way to Stem Weight Gain in Children
Treated with Antipsychotic Medications**

Arlington, Va. - Second-generation or atypical antipsychotic medications are often effective in reducing psychotic symptoms in children and adolescents, but many times these patients experience serious metabolic side effects, which include obesity and Type 2 diabetes. A method for halting the dramatic weight gain is reported in the December issue of *The American Journal of Psychiatry (AJP)*, the official journal of the American Psychiatric Association (APA).

David J. Klein, M.D., Ph.D., and colleagues from Cincinnati Children's Hospital Medical Center authored the *AJP* article, "A Randomized, Double-Blind, Placebo-Controlled Trial of Metformin Treatment of Weight Gain Associated with Initiation of Atypical Antipsychotic Therapy in Children and Adolescents." The small, short-term study concluded that metformin, a drug used to regulate blood glucose in Type 2 diabetes, is safe and effective in treating weight gain and insulin resistance seen in many children treated with atypical antipsychotics.

The study involved 39 children and adolescents ages 10 to 17 who were taking the atypicals olanzapine, risperidone, or quetiapine for less than one year and had gained at least 10 percent of their pretreatment weight. Nineteen patients were prescribed metformin in addition to their treatment, while 20 patients received a placebo.

Over 16 weeks, the patients taking placebo gained an additional 8.8 pounds on average. However, weight decreased by an average of 0.2 pounds in the patients taking metformin. Because the study was conducted in growing children, weight stabilization was associated with a decrease in measures of weight relative to height (body mass index, or BMI). No serious side effects occurred, and the dropout rates were similar in the metformin and placebo groups.

Since the substantial weight gain produced by second-generation antipsychotics can decrease compliance with treatment, metformin has the potential to increase compliance and improve outcomes, as well as decrease harmful metabolic effects. In an editorial, Kenneth Towbin, M.D., discusses the study's importance. He also points out that the study does not address the long-term safety of metformin treatment.

Said *AJP* Editor In Chief Robert Freedman, M.D.: "The early recognition of psychosis in children has led to significant improvement in their clinical course, because of early treatment. Earlier this year, we published evidence that the suicide rate in these children is decreased with early identification and treatment. An unfortunate consequence for the children and their families is the massive weight gain caused by the medications used in their treatment. This study is the first to indicate an effective intervention to help these children return to more normal weight."

The study by Klein and associates was partially supported by an investigator-initiated award from Eli Lilly and Company. Additional financial disclosures appear at the end of the article.

Dr. Morrison and Dr. Cottingham are co-inventors of "Use of Metformin to Counteract Weight Gain Associated With Valproate and Other Psychotropic Medications" and hold U.S. patent 6,194,466; Dr. Morrison holds European patent 1,121,110. The U.S. and European patents have been licensed to BTG, Int. Drs. Klein, Sorter, and Barton report no competing interests.

Note to Editors: Contact APA's Office of Communications and Public Affairs at 703-907-8640 or press@psych.org for an embargoed copy of the article and editorial.

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