With kids' antipsychotic treatment on the rise, study looks at prescriber decision-making

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More kids nationwide are taking medications designed to treat such mental illnesses as schizophrenia and bipolar disorder, and pediatricians and psychiatrists at the University of Vermont want to know why.

Led by David Rettew, M.D., associate professor of psychiatry and pediatrics, the researchers conducted a study to find out "whether the right youth are being prescribed the right medications at the proper time in their treatment," they state in their study in the March issue of the journal *Pediatrics*. Their findings, for the first time, delve into the clinical decision-making process of physicians who prescribe these drugs.

"There are risks associated with using these medicines," Rettew says. "At the same time, I think they've saved lives."

Many studies have pointed to increasing use of antipsychotic medications for pediatric patients. The Agency for Healthcare Research and Quality, the research arm of the U.S. Department of Health and Human Services, found that treatment with such drugs climbed 62 percent for children on Medicaid between 2002 and 2007, reaching 2.4 percent of those youth.

Rettew says he - along with fellow members of a Vermont state task force that keeps watch on use of psychiatric medications for young

people - wanted to answer the question: "Is this a reasonable thing, or are these medications potentially being overused?"

From Medicaid claims data, the researchers sent a survey to the prescriber of every antipsychotic medication - most commonly risperidone, quetiapine and aripiprazole - issued between July and October 2012. Relevant surveys were submitted by 147 physicians who wrote prescriptions for 647 patients.

Rettew and his co-authors turned to two sources of guidelines for appropriate use of antipsychotic medicines: the best practices recommendations outlined by the American Academy of Child and Adolescent Psychiatry (AACAP), and clinical indications from the U.S. Food and Drug Administration (FDA).

The AACAP advises that kids who haven't been diagnosed with major mental illness such as schizophrenia but present with other types of behavioral problems, such as aggression, eating disorders or oppositional defiant disorder - receive treatment with these drugs only after other medications or nonpharmacological therapies are tried.

"Part of our concern is that these medicines may be getting pulled out too early in the treatment planning for things like oppositional behavior, ahead of things like behavioral therapy that could be tried first," says Rettew, director of the Pediatric Psychiatry Clinic at the University of Vermont Medical Center and the Vermont Center for Children, Youth and Families.

In half of the cases, the results show, doctors veered from the guidelines. The primary misstep was the failure to do lab tests to monitor cholesterol and blood-glucose levels before and after the patient began taking the medicine. The AACAP recommends the lab work because of the risk associated with these medications for diagnoses such as high cholesterol

and diabetes.

The study found less evidence to support concerns about doctors ordering the drugs when they weren't indicated. Instead, almost 92 percent of doctors prescribed the drugs under the proper circumstances. While they did try antipsychotics as secondary treatment for aggression and mood instability, they did not prescribe them for low-level problems - for example, to help a kid sleep or control temper tantrums in young children, Rettew says.

Use of these medications for pediatric patients, the study shows, is declining in Vermont. Since 2009, the prescription rate has fallen by 45 percent for children age 6 to 12, and by 27 percent for ages 13 to 17, according to the authors.

Rettew and the research team suggest four potential initiatives that could assist doctors prescribing antipsychotics:

- Use of electronic medical records to remind doctors of the necessary blood work;
- Increased access to evidence-based therapies that can help alleviate anxiety, depression and oppositional behavior;
- Better training and consultation for doctors who don't initially prescribe the medicine but are responsible for monitoring patients who are now taking it; and
- Improved access to medical information across centers, so doctors who prescribe the medications know the history of prior treatment.

"I'm not anti-antipsychotics; I just want to make sure they're used very carefully," says Rettew. "These findings could help us design a game plan for measures to improve best-practice prescribing,"