Teen ADHD Stimulant Abuse Rose 76% in 8 Years

BY KERRI WACHTER

Adolescent abuse of prescription stimulant attention-deficit/hyperactivity disorder medications increased far more rapidly than general and adolescent substance abuse for the years of 1998-2005, according to Dr. Jennifer Setlik and her associates.

Stimulant abuse–related calls to poison control centers rose 76%, general substance abuse calls rose 59%, and adolescent substance abuse calls increased 55% over the 8-year period.

The findings come from a study of data from poison control calls collected in the National Poison Data System (NPDS) (Pediatrics 2009;124:875-80; doi:10.1542/peds.2008-0931).

"The sharp increase in calls related to teen ADHD medication abuse, out of proportion to other poison center calls, suggests a rising problem with abuse of these medications," wrote Dr. Setlik and her coinvestigators. Dr. Setlik is an emergency physician at Cincinnati Children's Hospital Medical Center.

The researchers searched the NPDS database for cases of adolescent exposure to prescription ADHD medications for 1998-2005. The NPDS contains data on every human exposure report received by a member poison control center. The database includes 41.1 million cases from 1983 to 2005.

The cases had to meet specified criteria: age 13-19 years with intentional abuse/misuse as the reason for exposure. All product codes for generic and brand name stimulant ADHD medications were identified and used in the search. Stimulant medications were broken down to amphetamine/dextroamphetamine or methylphenidate.

The centers classify medical outcomes as no effect, minor effect (minimally bothersome/resolves quickly), moderate effect (more pronounced/prolonged/systemic), major effect (life-threatening or resulted in significant residual disability/disfigurement), and death. The American Association of Poison Control Centers defines misuse as improper or incorrect use of a substance; abuse is defined as improper or incorrect use of a substance with the intent to get high or achieve some other psychotropic effect.

In addition, the researchers used the National Disease and Therapeutic Index database to assess ADHD prescription medication rates for those aged 10-19 and those aged 3-9 between 1998-2005. The database (IMS Health Inc.) collects the data from ongoing surveys using quarterly sampling of more than 4,000 physicians who record all drugs recommended (prescription and over-the-counter) for 2 consecutive days.

During the study period, calls for adolescent abuse of ADHD prescription drugs rose 76% from 330 to 581 per year. However, the number of prescriptions written for these medications for 10- to 19-year-olds rose 86% during the same period, from 4.2 million to 7.8 million.

"The 76% rise in the number of calls for teen abuse of ADHD medications is significant and is faster than the also significant rise in the number of calls for victims of substance abuse generally (59%) and teen substance abuse specifically (55%)," the researchers wrote. In contrast, the annual rate of total and teen exposures was unchanged.

Amphetamine/dextroamphetamine calls increased 476%, from 71 to 409 per year, while prescriptions for amphetamine/dextroamphetamine increased 141%, from 1.5 million to 3.6 million per year for 10- to 19-year-olds. The number of amphetamine-dextroamphetamine abuse calls per million prescriptions for 10- to 19-year-olds increased 140%.

Methylphenidate calls decreased 30% during the same period, from 246 to 172 per year, while prescriptions increased 57%, from 2.7 million to 4.3 million for 10- to 19-year-olds. The number of methylphenidate abuse calls per million prescriptions for 10- to 19-year-olds increased 55%.

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