Pediatric ADHD Medication Exposures Reported to US Poison Control Centers

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Abstract:

OBJECTIVES: To describe the characteristics and trends of exposures to attention-deficit/hyperactivity disorder (ADHD) medications among individuals 0 to 19 years old reported to US poison control centers.

METHODS: National Poison Data System data from 2000 through 2014 were retrospectively analyzed to examine pediatric ADHD medication exposures.

RESULTS: From 2000 through 2014, there were 156,365 exposures reported to US poison control centers related to ADHD medications. The overall rate of reported exposures increased 71.2% from 2000 to 2011, followed by a 6.2% decrease from 2011 to 2014. Three-fourths (76.0%) of exposures involved children ≤12 years old. Methylphenidate and amphetamine medications accounted for 46.2% and 44.5% of exposures, respectively. The most common reason for exposure was therapeutic error (41.6%). Intentional medication exposures (including suspected suicide and medication abuse and/or misuse) were reported most often among adolescents (13-19 years old), accounting for 50.2% of exposures in this age group. Overall, the majority of exposed individuals (60.4%) did not receive health care facility treatment; however, 6.2% were admitted to a hospital for medical treatment, and there were 3 deaths. The increasing number and rate of reported ADHD medication exposures during the study period is consistent with increasing trends in ADHD diagnosis and medication prescribing. Exposures associated with suspected suicide or medication abuse and/or misuse among adolescents are of particular concern.

CONCLUSIONS: Unintentional and intentional pediatric exposures to ADHD medications are an increasing problem in the United States, affecting children of all ages.