Early discontinuation of attention-deficit/hyperactivity disorder drug treatment: a Danish nationwide drug utilization study.

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Abstract
Knowledge of patterns of treatment discontinuation in attention-deficit/hyperactivity disorder (ADHD) drug treatment is of importance, for both the clinical practice and the study of long-term treatment outcomes. The purpose of this study was to describe early discontinuation of ADHD drug treatment. Using the Danish National Prescription Registry, all first-time users of the ADHD drugs methylphenidate and atomoxetine were identified between 2000 and 2012. Early discontinuation was defined as failing to fill a second prescription for any ADHD drug within 6 months. Analyses were conducted stratified by calendar year, drug formulation, patient sex, age and region of residence. 59,116 first-time users of methylphenidate and atomoxetine with at least 6 months of eligible follow-up were identified. Overall, 12.6% (n = 7441) failed to fill a second prescription within 6 months. This proportion changed over time, dropping from 20.8% in 2000 to 12.5% in 2012. The proportion of early discontinuation was considerably lower among children than among adults. Proportions were comparable when stratifying by index drug. Proportions of early discontinuation were similar between regions of Denmark, except in the capital region, where it remained at around 20% among 18- to 49-year-olds throughout the study period (22.6% in 2012). In conclusion, we found that the proportion of early discontinuation among ADHD drug users in Denmark dropped markedly during the past decade for both sexes, all age groups and all regions, except for adults in the capital region. Overall, early discontinuation was somewhat lower than expected, considering rates of side effects or non-response to ADHD drug treatment.