Utilization of Stimulants and Atomoxetine for Attention-Deficit/Hyperactivity Disorder among 5.4 million Children Using Population-based Longitudinal Data.

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Abstract

Use of stimulants to treat Attention-deficit/hyperactivity disorder (ADHD) has increased over the past two decades and varies substantially between countries. The objective of this multinational population-based study was to examine utilization of ADHD drugs (stimulants and atomoxetine) including co-medication with other psychotropic drugs in the entire child population in the five Nordic countries. We included longitudinal data on dispensed ADHD drugs from five Nordic prescription registers during 2008-2012; which in 2012 comprised 48,296 individuals among 5.42 million inhabitants aged 0-17 years. Prevalence of filling ≥1 prescriptions of ADHD drugs during 2008-2012 among children aged 6-17 years increased during 2008-2012 from 5.9 to 11.2 and 19.4 to 31.0 per 1000 girls and boys, respectively. Prevalence by country showed that Iceland, Finland and Sweden had a steady increase during the study period, while in Norway the prevalence was quite stable and in Denmark it leveled off from 2010. Use in preschoolers (age 0-5 years) was rare. Iceland had much higher prevalence and incidence than the other Nordic countries. The incidence of ADHD drug use increased during the study period, from 4.0 to 4.9 and from 1.5 to 2.3 per 1000 boys and girls, respectively. The increasing number of new users leveled off somewhat after 2010. Co-medication with other psychotropic drugs was more common among girls (33.9%) than boys (27.0%) and was mainly melatonin, followed by antidepressants and antipsychotics. Overall prevalence of ADHD drug use increased among Nordic girls and boys aged 6-17 years, whereas the incidence increased slightly during 2008-2010 but leveled off through 2012. The substantial differences in ADHD drug use across the Nordic countries and high degree of co-medication with other psychotropic drugs underscore the importance of close monitoring of treatment for ADHD among children.