Factors that Affect the Adherence to ADHD Medications during a Treatment Continuation Period in Children and Adolescents: A Nationwide Retrospective Cohort Study Using Korean Health Insurance Data from 2007 to 2011.

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Abstract

OBJECTIVE:
Several factors, such as male gender, older age, type of insurance, comorbid conditions, and medication type, have been associated with attention-deficit/hyperactivity disorder (ADHD) medication adherence rates, but the results have been inconsistent. We analysed data to answer several questions: 1) How old were patients who first refilled their treatment medications used primarily for ADHD, regardless of the medication type? 2) What socio-demographic factors are associated with medication adherence? 3) What medical conditions, such as medication type and comorbid diagnosis, influence adherence?

METHODS:
We analysed National Health Insurance data, which comprised continuously enrolled Korean National Medical Insurance children (6-18 years) with at least 2 ADHD prescription claims (January 2008-December 2011). The persistence of use regarding the days of continuous therapy without a 30-day gap was measured continuously and dichotomously. Adherence, using a medication possession ratio (MPR), was measured dichotomously (80% cut-off).

RESULTS:
The cumulative incidence of index cases that initiated medication refills for ADHD treatment during the 4 year period was 0.85%. The patients who exhibited an MPR greater than 80 comprised approximately 66%. The medication type, high school age groups, physician speciality, treatment at a private clinic, and comorbid conditions were associated with medication adherence during continuous treatment using a multivariate analysis.

CONCLUSION:
A better understanding of ADHD treatment patterns may lead to initiatives targeted at the improvement of treatment adherence and persistence. Other factors, including the severity, family history, costs, type of comorbidities, and switching patterns, will be analysed in future studies.