

## **Comparing Treatment Adherence of Lisdexamfetamine and Other Medications for the Treatment of Attention Deficit/Hyperactivity Disorder: A Retrospective Analysis.**

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J Med Econ. 2013 Apr 29. [Epub ahead of print]

**Objective:** To assess treatment adherence in attention deficit/hyperactivity disorder (ADHD) patients initiated on Lisdexamfetamine (LDX) versus other FDA-approved stimulants and non-stimulant medications.

**Methods:** ADHD patients initiated on an ADHD medication (index medication) were selected from a large US administrative claims database. Based on age and previous treatment status, patients were classified into treatment-naïve children and adolescents (6-17 years old), previously treated children and adolescents, treatment-naïve adults (over 18 years old), and previously treated adults. Furthermore, based on their index medication, patients were classified into seven mutually exclusive treatment groups: LDX, atomoxetine (ATX), osmotic release methylphenidate hydrochloride long acting (OROS MPH), other methylphenidate/dexmethylphenidate long acting (MPH LA) and short acting (MPH SA), and amphetamine/dextroamphetamine short acting (AMPH SA) and long acting (AMPH LA). Treatment adherence (proportion of days covered by the index medication  $\geq 0.8$ ) over a 12-month period was compared across treatment groups using multivariate logistic regression models.

**Results:** In children and adolescents, LDX patients were more likely to be adherent compared to patients in each of the other treatment groups, except in treatment-naïve patients where LDX patients had a similar likelihood ( $p=0.6925$ ) and were less likely ( $p=0.0004$ ) to be adherent compared to ATX and OROS MPH patients, respectively. In adults, the LDX treatment group was also more likely to be adherent compared to each of the other treatment groups, except compared to AMPH LA, where statistically insignificant differences were observed (previously treated:  $p=0.6471$ , treatment-naïve:  $p=0.0733$ ).

**Limitations:** ADHD severity information was not available in the database. Accordingly, this study did not control for ADHD severity.

**Conclusion:** Overall, LDX-treated patients demonstrated a better treatment adherence compared to patients initiated on other ADHD medications, except for AMPH LA in adult and OROS MPH and ATX in treatment-naïve children and adolescents.