



Alpha-2 Agonists are Commonly Used to Treat Preschool ADHD at 2 DBPNet Sites

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Purpose: Describe the use of stimulants and alpha-2 agonists (A2A) for treatment of preschool age children with ADHD at 2 Developmental-Behavioral Pediatrics Research Network (DBPNet) sites.

Methods: Demographic information, diagnoses, and medications prescribed by developmental-behavioral pediatricians (DBPs) were extracted from the electronic health record for all outpatient DBP visits 1/1/2010 -12/31/2011 at 2 sites. The subset of visits for children 24-72 months of age who had a primary diagnosis of ADHD were included in this analysis. For A2A medication instructions were reviewed and coded as being for ADHD if ever prescribed > 1 time a day (no long acting A2A prescribed) or 1x/day at a time other than evening; as being for sleep if prescribed 1x/day in the evening; or as unclear (1x/day, time unspecified).

Results: Over the 2 yrs, 993 children seen at 2,048 visits met inclusion criteria. Of the 993 children, 362 (36.5%) were prescribed a stimulant and 252 (25.4%) were prescribed an A2A prior to 72 months. Only stimulants were prescribed at 703 visits (34.3%), only A2A at 317 visits (15.4%), both medications at 177 visits (8.6%) and neither at 851 visits. A2A were prescribed for the following indications: ADHD (76.8%), sleep (16.6%), unclear(6.6%). Between sites there were differences in the frequency of visits in which these medications were prescribed with stimulants more commonly prescribed at site 1 (48.1% vs 39.8%, $p<0.001$) and A2A more commonly prescribed at site 2 (14.8% vs 29.8%; $p<0.001$). Among forty 2 yo with a primary diagnosis of ADHD, stimulants were less likely to be prescribed compared to A2A (2.5% vs 30%; $p<0.001$). Among 3 yo the med classes were equally likely to be prescribed (25.5% vs 33.6%; $p=0.13$) Among 4-5yo stimulants were more likely than A2A to be prescribed (39.4% vs 23.4%, $p<0.005$).

Conclusion: This study suggests that A2A are commonly used by some DBPs for preschool ADHD. Variation in frequency of use of stimulants & A2A across sites may indicate a lack of consensus on when to use these medications and suggests a need for comparative effectiveness research to better define their relative benefits & side effects in preschool ADHD.

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