Initiation and Persistence of Pharmacotherapy for Youths with Attention Deficit Hyperactivity Disorder in Taiwan.

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Abstract

BACKGROUND:
Pharmacotherapy is an effective therapeutic option for attention deficit hyperactivity disorder (ADHD). Understanding the patterns of medication treatment is crucial for clinical practice. This study employed nationwide population-based data to elucidate the initiation and persistence of pharmacotherapy (immediate-release methylphenidate [IR-MPH], osmotic controlled-release formulations of methylphenidate [OROS-MPH] and atomoxetine [ATX]) for youths with ADHD in Taiwan.

METHODS:
Patients first receiving an ADHD diagnosis at age 18 or younger between January 2000 and December 2009 (n = 112,140; mean age at ADHD diagnosis: 7.7 years) were selected from Taiwan's National Health Insurance database. All patients were monitored through December 31, 2011, with an average follow-up time of 5.8 years. The initiation of ADHD drug therapy was defined as the first patient prescription, and discontinuation was defined as the cessation of ADHD medication for 180 days or longer.

RESULTS:
Within the first year after ADHD diagnosis, 47.3%, 14.4%, and 0.8% of the patients were prescribed IR-MPH, OROS-MPH, and ATX, respectively. Regarding the patients prescribed IR-MPH, OROS-MPH, and ATX, 17.8%, 12.6%, and 18.8%, respectively, received the prescription only once and never returned for a drug refill, and 51.0%, 38.9%, and 58.8%, respectively, discontinued drug therapy within 1 year after the first prescription. Male sex and neuropsychiatric comorbidities were associated with higher probabilities of being prescribed one of the medications. An older age at first prescription and a higher daily dose of prescription were significant predictors of early discontinuation of ADHD medication.

CONCLUSIONS:
The current findings suggest that IR-MPH is the most frequently prescribed drug for ADHD treatment in Taiwan. Patients treated with OROS-MPH possessed the highest persistence rate, whereas those treated with ATX had the lowest persistence rate. The results provide insight into the delivery of pediatric mental health services and have crucial implications for ADHD medication treatment in real clinical settings.