Study analyzes ADHD diagnosis, stimulant use after guideline released

from the **AAP Department of Research**

Diagnosis of attention-deficit/hyperactivity disorder (ADHD) stopped increasing and stimulant use remained constant among U.S preschool children after the 2011 release of the AAP clinical practice guideline on the diagnosis and treatment of ADHD (http://bit.ly/2p0JpNW).

These findings are detailed in a recently published study involving the AAP Pediatric Research in Office Settings (PROS) network (Fiks AG, et al. *Pediatrics.* 2016;138:e20162025, http://bit.ly/2qpeWtY).

The 2011 guideline provided the first evidence-based recommendations for the diagnosis and treatment of ADHD in preschool-age children. However, the limited research before and after release of the guideline left pediatricians and parents concerned about possible over-diagnosis and medication treatment in this age group.

Researchers used a large national database of electronic health record data to compare rates of diagnosis and stimulant use among U.S. children 48-72 months of age before and after release of the guideline.

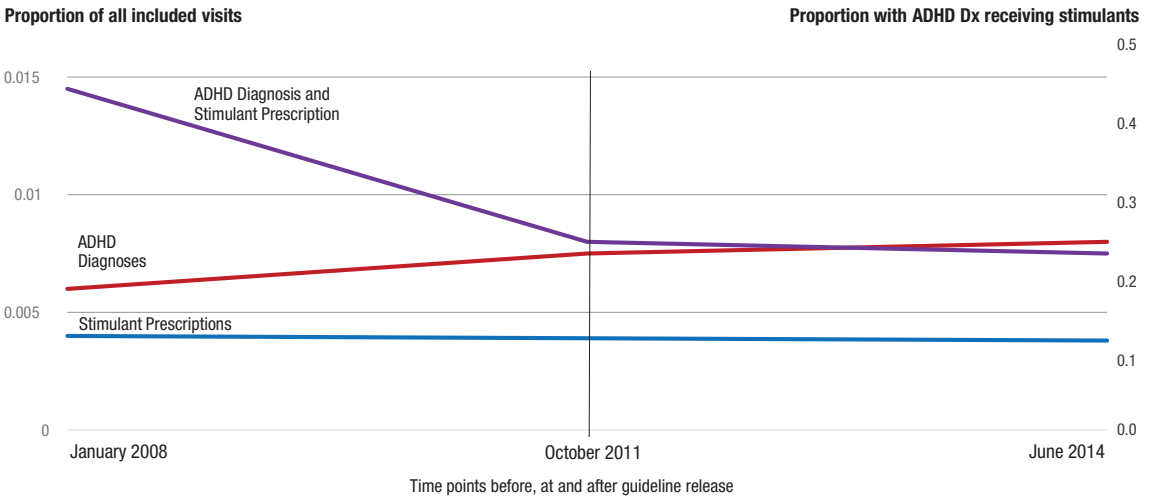
Data from 63 primary care practices were analyzed, including 211,558 preventive care visits by 143,881 children. In the pre-guideline period (from Jan. 1, 2008, through Sept. 30, 2011), 87,067 children had 118,957 visits. In the post-guideline period (from Oct. 1, 2011, through June 30, 2014), 56,814 children had 92,601 visits. ADHD was identified by International Classification of Diseases, Ninth Revision codes 314.0-314.9.

ADHD diagnoses and stimulant prescribing were more common among boys than in girls and in children 61-72 months old relative to children ages 48-60 months before and after release of the guideline.

Analyses compared the proportion of preventive care visits in the pre- and post-guideline periods during which children had a diagnosis of ADHD or received a prescription for stimulants. In the pre-guideline period, children had an ADHD diagnosis at 848 of 118,957 visits (0.7%) and received a stimulant prescription at 467 visits (0.4%). In the post-guideline period, children had an ADHD diagnosis at 796 of 92,601 visits (0.9%) and received a stimulant prescription at 326 visits (0.4%).

Regression analyses were performed to compare trajectories of diagnosis and prescribing in the 45 months before vs. the 33 months after release of the guideline. The previously increasing rate of diagnosis leveled off after release of the guideline, and stimulant prescribing remained consistent across both periods (see figure).

ADHD diagnoses and stimulant prescribing in a national sample of children before vs. after the 2011 AAP guideline for management of ADHD in 48- to 72-month-old children



Although analyses could not determine causality, they did account for trajectories in diagnosis and prescribing over time. This study highlights the power of large datasets to examine questions about uncommon conditions or conditions with infrequent treatment. Because of the large cohort, researchers could detect the small percentage of children who were diagnosed with and receiving medication treatment for ADHD.

This study involved collaboration among pediatric practices from the AAP PROS network; the AAP Comparative Effectiveness Research through Collaborative Electronic Reporting (CER²) Consortium research team; and researchers from the MetroHealth System and Case Western Reserve in Cleveland, The Children's Hospital of Philadelphia (CHOP), University of Pennsylvania, University of Vermont and the Academy.

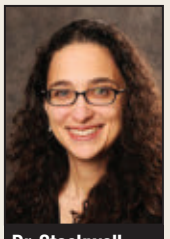
The project was supported in part by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) with the National Institutes of Child Health and Human Development under grants R40MC24943, UB5MC20286 and UA6MC15585; CHOP and the Academy.

This content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. government.

RESOURCES

- For more information about PROS, visit http://bit.ly/2ri1qrH or contact Laura Shone, in the AAP Division of Primary Care Research, at 847-434-7910 or lshone@aap.org.
- ADHD toolkit for clinicians, http://bit.ly/2oY4A28
- Information for parents on ADHD, http://bit.ly/1KuIpF5

Dr. Stockwell to help lead PROS network


Dr. Stockwell

Melissa Stockwell, M.D., M.P.H., FAAP, has been named associate director of the AAP Pediatric Research in Office Settings (PROS) network. She joins PROS Director Alexander G. Fiks, M.D., M.S.C.E., FAAP, as the pediatrician-researcher leaders of the practice-based research network.

Dr. Stockwell is the Florence Irving Associate Professor of Pediatrics and Population and Family Health at Columbia University Medical Center. She is medical director of the New York-Presbyterian Immunization Registry and co-director of the Columbia University Primary Care Clinician Research Fellowship in Community Health. Additionally, she is a pediatrician in a New York-Presbyterian Ambulatory Care Network community primary care practice.

Dr. Stockwell's research, which concentrates on underserved children and adolescents, focuses on translational interventions to improve vaccination rates with an emphasis on health technology and health literacy. This includes the use of large-scale, patient-centered communication technologies, such as text messaging, for surveillance of vaccine-preventable diseases and adverse events. She serves on the New York City Department of Health and Mental Hygiene Immunization Improvement Team and is a member of the NYC Coalition for Immunization Initiatives.