

New Approaches to the Management and Treatment of Attention-Deficit/Hyperactivity Disorder

Attention-deficit/hyperactivity disorder (ADHD) is among the most prevalent psychiatric disorders seen in children, affecting 8% to 10% of school-aged children,¹ and accounting for 30% to 50% of all mental health referrals for children.² In 40% to 70% of cases, childhood ADHD will persist into adolescence.³ Some research suggests that anywhere from 43% to 75% of children will experience ADHD into adulthood,³⁻⁶ although individual symptoms may change. Research suggests that left untreated, children with ADHD are likely to have significantly higher rates of antisocial and substance abuse disorders (32% and 10%, respectively) when compared with controls (8% and 1%, respectively).⁷ In older patients, the core symptoms of ADHD give rise to numerous social and cognitive impairments. Attention problems frequently result in problems with time management and difficulty switching and completing tasks.⁸ Legal and employment problems, as well as marital discord have all been associated with ADHD.⁹

For decades, stimulants, in particular methylphenidate (MPH), have been the cornerstone of ADHD management.¹⁰ Immediate-release MPH requires dosing 3 to 4 times a day to achieve symptom management through the day and is thus inconvenient for patients, their parents, and school staff supervising the administration of therapy.¹¹ This leads to poor patient adherence and low persistence with therapy.¹²

In recent years, a number of extended-release MPH formulations have been developed to avoid the need for repeated dosing during the day. These formulations use varied technologies for the release of medication, resulting in varied and distinct pharmacokinetic and pharmacodynamic profiles. In addition, in 2003 the first non-

stimulant drug for treatment of ADHD gained approval by the US Food and Drug Administration, creating another therapeutic option. This issue of *The American Journal of Managed Care* reports on the current medical evidence surrounding these agents to guide clinicians in their treatment decisions.

Mark A. Stein, PhD, professor of psychiatry and director of HALP Clinic and ADHD Clinical Research in Child and Adolescent Psychiatry at The University of Chicago reviews innovations in ADHD treatment and describes research on the newer, long-acting stimulant and nonstimulant treatments for ADHD. He reports that longer-acting stimulants and nonstimulants provide increased clinical utility compared to short-acting stimulants. Dr Stein suggests, however, that direct head-to-head studies are needed to better inform clinical decision making and to identify moderators and mediators of differential response.

Kenneth W. Steinhoff, MD, associate clinical professor at the University of California, Irvine, reports on recent evidence supporting optimal treatment dosing across the day. He suggests that for stimulants, the value of increasing the dose to improve effect has replaced older notions of minimizing exposure to medication by treating at the lowest dose demonstrating effect.

Oscar G. Bukstein, MD, MPH, associate professor of psychiatry at the University of Pittsburgh, Pennsylvania, examines an aspect of ADHD not frequently considered: patient and family satisfaction with treatment. Since satisfaction is key to compliance, Dr Bukstein's report addresses a significant gap in the ADHD literature. He reviews the general determinants of satisfaction with medical care and behavioral health care of children and adolescents, satisfac-

tion with medication and specific medications for ADHD, and differential satisfaction with various treatment modalities for ADHD.

Mark Olsson, MD, MPH, professor of clinical psychiatry at Columbia University, New York, reviews the efficacy of stimulant medications in the treatment of ADHD, focusing on new stimulant preparations and other new pharmacological options. The availability of a wider range of therapies gives physicians more opportunities to select the best treatment regimen for their patients.

Recent years have seen many advances in the treatment of ADHD. New compounds, including newly formulated extended-release stimulants, as well as the new non-stimulant agent, atomoxetine, offer new options. These new agents not only offer greater convenience, but also promise gains in symptom relief and improved outcomes. With adequate management of symptoms, this frequently life-long disorder need not lead to life-long impairment.

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