Pharmacotherapies for attention-deficit/hyperactivity disorder: expected-cost analysis.

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BACKGROUND: Attention-deficit/hyperactivity disorder (ADHD) is a common childhood neurobehavioral disorder characterized by inattention, hyperactivity, and impulsivity. Prevalence estimates in elementary school children generally range from 3% to 8%. ADHD is frequently treated with psychostimulant medications, which have been shown to improve both cognitive and behavioral outcomes for most children.

OBJECTIVE: The goal of this study was to estimate the total expected costs for the treatment and management of school-age children with ADHD using 6 commonly prescribed pharmacotherapies: methylphenidate immediate-release/extended-release (MPH IR/ER), methylphenidate immediate-release (MPH IR), Metadate CD (branded MPH IR/ER), Concerta (branded MPH ER), Ritalin (branded MPH IR), and Adderall (a combination of dextroamphetamine and amphetamine salts). METHODS: A literature review and clinical assessment using a 27-question survey instrument were used to capture information on the clinical characteristics of ADHD, including common treatment regimens, clinical management of patients, pathways of care, and components of care. A meta-analysis provided response rates for 3 commonly used pharmacotherapies: Metadate CD, MPH IR, and Adderall. Information from the clinical assessment and the meta-analysis were used to populate a decision-analytic model to compute total expected cost for each comparator.

RESULTS: The average total annual expected cost per patient was \$1,487 for Metadate CD, \$1,631 for Concerta. \$1,792 for MPH IR/ER, \$1,845 for MPH IR, \$2,080 for Ritalin, and \$2,232 for Adderall.

CONCLUSIONS: Metadate CD had the lowest total expected cost and Adderall had the highest total expected cost among the ADHD pharmacotherapies evaluated. The differences were attributable to differences in drug-acquisition costs and the need for in-school dosing of twice-daily and thrice-daily medications.

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