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Medicaid Prior Authorization Policies for Medication Treatment of Attention-Deficit/Hyperactivity Disorder in Young Children, United States, 2015

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Abstract

Objectives: In 2011, the American Academy of Pediatrics updated its guidelines for the diagnosis and treatment of children with attention-deficit/hyperactivity disorder (ADHD) to recommend that clinicians refer parents of preschoolers (aged 4-5) for training in behavior therapy and subsequently treat with medication if behavior therapy fails to sufficiently improve functioning. Data available from just before the release of the guidelines suggest that fewer than half of preschoolers with ADHD received behavior therapy and about half received medication. About half of those who received medication also received behavior therapy. Prior authorization policies for ADHD medication may guide physicians toward recommended behavior therapy. Characterizing existing prior authorization policies is an important step toward evaluating the impact of these policies on treatment patterns. We inventoried existing prior authorization policies and characterized policy components to inform future evaluation efforts.

Methods: A 50-state legal assessment characterized ADHD prior authorization policies in state Medicaid programs. We designed a database to capture data on policy characteristics and authorization criteria, including data on age restrictions and fail-first behavior therapy requirements.

Results: In 2015, 27 states had Medicaid policies that prevented approval of pediatric ADHD medication payment without additional provider involvement. Seven states required that prescribers indicate whether nonmedication treatments were considered before Medicaid payment for ADHD medication could be approved.

Conclusion: Medicaid policies on ADHD medication treatment are diverse; some policies are tied to the diagnosis and treatment guidelines of the American Academy of Pediatrics. Evaluations are needed to determine if certain policy interventions guide families toward the use of behavior therapy as the first-line ADHD treatment for young children.

Keywords

legal epidemiology, attention-deficit/hyperactivity disorder, behavior therapy

In 2011, >6.4 million US children aged 4-17 had received a diagnosis of attention-deficit/hyperactivity disorder (ADHD).[1] According to 2 national surveys, parent-reported provider-diagnosed ADHD has increased by 3% to 5% annually since the 1990s.[1-3] The percentage of children aged 4-17 taking ADHD medication also increased by an average of 7% annually from 2007-2008 to 2011-2012.[1] As of 2011-2012, 5.1 million school-aged children had a current ADHD diagnosis, and 3.5 million children were taking medication to treat ADHD.[1]

ADHD has a substantial impact on a child's school and personal relationships and on the US economy; annual cross-sector costs from 1990 to 2011 were estimated to be

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$38 billion to $72 billion, largely attributed to children's education and health care needs.[1,4] Some of the highest rates of ADHD diagnosis are among children with public health insurance.[1] Children with ADHD have higher rates of unintentional injury, emergency department visits, peer problems, and academic failure than do their peers without ADHD.[5-9] Additionally, ADHD is a chronic disorder often found to persist into adulthood, resulting in increased risk for incarceration; comorbid psychiatric disorders, including alcohol dependence or abuse and antisocial personality disorder; and early death due to suicide.[10]

Recent discussion has focused on treatment options for children, particularly preschool-aged children (aged 4-5), with ADHD. Currently, 2 effective treatment options are available for children with ADHD: behavior therapy and psychostimulant medication,[11,12] with treatments depending on the child's age. Stimulant medication treatment improves core ADHD symptoms but is likely to cause side effects.[13,14] Research on the use of ADHD medications among preschoolers shows that young children who take ADHD medications are significantly more likely than older children who take ADHD medications to experience negative health side effects from the medications, including emotional lability, appetite loss, trouble sleeping, stomachaches, social withdrawal, and lethargy.[15,16]

Evidence-based parent- or teacher-administered behavior therapy is a well-established ADHD treatment that improves ADHD symptoms, children's academic performance, and social skills, with no documented risk of adverse health effects.[11,17-20] The Agency for Healthcare Research and Quality has concluded that parent behavior training is as effective as methylphenidate for treating preschoolers at risk for ADHD.[11,17] Additionally, a recent study comparing sequences of behavioral and pharmacological treatments for children aged 5-12 with ADHD determined that initiating ADHD treatment with behavior therapy alone produced better outcomes, including a reduction in the number of violations of classroom rules, than did initiating ADHD treatment with medication alone.[21]

In 2007, the American Academy of Child and Adolescent Psychiatry published guidelines for child psychiatrists that addressed the pharmacological treatment of "very young" children with various psychiatric disorders. These guidelines included the recommendation for clinicians to connect families to behavior therapy services before prescribing medication to treat preschool-aged children with ADHD.[22] In 2011, the American Academy of Pediatrics (AAP) updated its previously published clinical practice guidelines with recommendations for the diagnosis and treatment of children with ADHD. Those treatment recommendations vary by age: "For preschool-aged children (4-5 years of age), the primary care clinician should prescribe evidence-based parent and/or teacher-administered behavior therapy as the first line of treatment" and subsequently treat with medication only if behavior therapy fails to substantially improve the child's functioning and there is moderate to severe continuing disturbance in the child's function. For children aged 6-11, AAP recommends a combination of US Food and Drug Administration–approved ADHD medication and/or parent- and/or teacher-administered behavior therapy, preferably both. For adolescents aged 12-18, AAP recommends that providers prescribe Food and Drug Administration–approved medications for ADHD and may prescribe behavior therapy, preferably both.[12] Recommended behavior therapy for preschool-aged children includes parent training with a therapist, child therapy with a therapist, or school interventions implemented by a classroom teacher, the most effective of which is parent training.[11,12]

When best-practice recommendations are compared with indicators of clinical practice, it appears that current practices and best practices for pediatric ADHD treatment are misaligned.[23] Data from the 2009-2010 National Survey of Children With Special Health Care Needs, collected just before the AAP guidelines were released, suggest that fewer than half of children aged 4-5 with ADHD received behavior therapy and about half received medication; about half of those who received medication also received behavior therapy.[24] Recent analyses of administrative claims data also suggest that annually from 2008 to 2014, about 75% of children aged 2-5 received ADHD medication and only about 40% to 50% received some form of psychological treatment services.[23]

Some state Medicaid programs have implemented policies to try to manage the use of ADHD medications. These policies include prescription medication prior authorization policies and prescription drug lists that restrict coverage approvals to patients of a certain age or require additional provider involvement before payment is granted. These policies may guide physicians toward preferred pediatric ADHD treatments.

We conducted a policy scan and analysis that resulted in a publicly available online data set that describes the features of state Medicaid prior authorization policies that pertain to pediatric ADHD prescription medications (ie, for children aged <18).[25] We examined such policy features as applicable ages, medication types, and criteria for approval.

Methods

We used the methods in Anderson et al[26] to conduct a legal assessment mapping study of state Medicaid prior authorization policies for pediatric ADHD medication prescriptions (policy or policies) in effect as of November 1, 2015. We conducted a policy scan to identify relevant state policies. We then conducted systematic searches of Medicaid websites, spoke to state Medicaid officials, and cross-referenced all state policies with the Centers for Medicare & Medicaid Services' *Medicaid Drug Utilization Review State Comparison/Summary Report FFY 2013 Annual Report*.[27] We collected prior authorization forms, memoranda from state Medicaid directors to prescribers, drug utilization review board meeting notes, and state Medicaid preferred drug lists.

After reviewing the collected policies, we created coding questions to catalog and analyze pertinent attributes of the policies. A subject matter expert at the Centers for Disease Control and Prevention (S.N.V.) reviewed the coding questions to ensure that we captured key elements of interest from the policies. Throughout the coding process, we performed additional online searches to ensure that all policies, effective as of November 1, 2015, had been collected and coded.

We developed a research protocol to articulate the coding scheme, definitions, and scoping parameters, including inclusion and exclusion criteria, used in the coding phase of the process. We defined a *policy* as a state Medicaid policy (not solely implemented by individual third parties, such as a single managed care organization) that prevents children and adolescents from receiving insurance coverage for prescribed ADHD medications (preferred and nonpreferred) without additional prescriber involvement. *Additional prescriber involvement* refers to steps that a prescriber must take, according to the policy, for authorization for prescription coverage to be granted. For this study, the documents considered to be a policy included the following: prior authorization forms with approval criteria, policy memoranda detailing a state's prior authorization criteria, or preferred drugs lists that included prior authorization criteria. We also included in the data set states with Children's Health Insurance Program policies, a subgroup of Medicaid, and states with traditional fee-for-service programs that did not encompass all Medicaid beneficiaries in a state.

We excluded states that had a preferred drug list with prior authorization criteria that applied only to nonpreferred medications from the data set's scope. We excluded those preferred drug lists from the scope because they did not prevent the patient from receiving coverage for preferred ADHD medications.

The final coding scheme consisted of 8 variables designed to record whether each state required prior authorization for pediatric ADHD medication prescriptions, specified an age range that required prior authorization, expressly denied authorization for certain ages, specified the medications subject to prior authorization requirements, or listed criteria for authorization approval. These objective characteristics were coded solely from the information contained in the publicly available policy documents collected and in effect as of November 1, 2015. For quality control, we used an iterative process of redundant research and coding, in which all divergences were revisited until resolved through group discussion and consultation with the subject matter expert. All divergences were resolved through group discussion. Additional information on the data set's construction is available at LawAtlas.org.[25]

Results

As of November 1, 2015, 27 state Medicaid programs had prior authorization policies for ADHD medications prescribed to children and adolescents, 16 of which had policies applicable only to children aged <6 (Table). In 2 states,

Table. State Medicaid programs with prior authorization policies for ADHD medication treatment for children in effect as of November 1, 2015[a]

	Medicaid Programs With Policies		
State	Any Policy	Policy Applicable Only to Children Aged <6	Nonmedication Treatment Required Before Medication[b]
Alabama			
Alaska			
Arizona	×	×	×
Arkansas	×	×	
California	×		
Colorado	×		
Connecticut			
Delaware			
Washington, DC			
Florida	×	×	×
Georgia			
Hawaii			
Idaho	×	×	
Illinois	×	×	×
Indiana			
Iowa			
Kansas			
Kentucky			
Louisiana	×		×
Maine	×	×	
Maryland			
Massachusetts	×	×	×
Michigan			
Minnesota	×		
Mississippi	×	×	
Missouri	×	×	
Montana			
Nebraska	×		
Nevada	×	×	
New Hampshire	×	×	
New Jersey			
New Mexico			
New York	×	×	
North Carolina			
North Dakota			
Ohio			
Oklahoma	×		
Oregon	×	×	
Pennsylvania	×		
Rhode Island			
South Carolina			
South Dakota			
Tennessee			
Texas	×		
Utah	×	×	
Vermont	×		
Virginia	×	×	×
Washington	×		

(continued)

Table. (continued)

State	Medicaid Programs With Policies		
	Any Policy	Policy Applicable Only to Children Aged <6	Nonmedication Treatment Required Before Medication[b]
West Virginia	×	×	×
Wisconsin			
Wyoming	×		
Total	27	16	7

Abbreviation: ADHD, attention-deficit/hyperactivity disorder.
[a]Data source: LawAtlas.org.[25] Policies apply to children aged <18.
[b]Programs that asked prescribers to indicate whether nonmedication treatments for ADHD had been considered before seeking medication coverage.

Medicaid coverage was expressly denied for ADHD medication prescriptions for patients younger than a specified age: in Minnesota, a child aged <3 could not receive coverage for any prescribed ADHD medications; in Texas, Medicaid coverage of immediate-release ADHD medications was expressly denied for patients aged <3, and coverage for extended-release and nonstimulant formulations was expressly denied for patients aged <6.

Policies for 23 of the 27 states specified that prior authorization criteria applied to stimulant medications or specific medications within the stimulant drug class.[28] Twenty-one of those states also listed nonstimulants, or specific medications within the nonstimulant drug class,[28] that required prior authorization. Four of the 27 states had policies applicable to any medication prescribed to treat ADHD.

Twenty-five states had policies that listed criteria for approval, which encompassed mandatory criteria and other requested criteria. The most common approval criterion, found in 23 states, asked a prescriber whether the patient had an ADHD diagnosis. Other, less common approval criteria included prescribers ruling out other causes, persistence of ADHD symptoms for a specified duration, patient impairment in social environments, and performance of psychological evaluations. In Louisiana and Nevada, the prior authorization policy expressly asked the prescriber to confirm that other treatable causes, aside from ADHD, had been ruled out as a criterion for coverage. Policies in Florida and Illinois asked the prescriber to confirm that the patient's symptoms had persisted for a specified period: in Florida, this period was 9 months; in Illinois, it was 6 months. Policies in Florida, Nevada, and Virginia asked a prescriber whether the patient had been impaired in social environments, including the child's home, school (including preschool), or child care.

Several state policies asked a prescriber to confirm that alternative treatment options had been explored. Seven state policies asked a prescriber to indicate whether nonmedication treatments, such as behavior therapy, had been attempted before seeking medication coverage (Table). Only Florida's policy required a prescriber to demonstrate not only that nonmedication treatment alternatives had been considered but also that an adequate trial of nonmedication treatment had failed to improve a patient's symptoms. Eight state policies asked a prescriber whether other medication alternatives had failed to improve a patient's ADHD symptoms. Six states asked prescribers to confirm that the patient had received a psychological evaluation. Additional information is available online.[25]

Discussion

Our findings describe the role of prescriber requirements when seeking coverage authorization for a prescription ADHD medication in each US state and the District of Columbia. Although the 2011 AAP guidelines for treating ADHD recommend prescribing "evidence-based parent and/or teacher-administered behavior therapy as the first line of treatment,"[12] our findings indicate that only 7 of 27 states with a prior authorization policy requested that the prescriber indicate if nonmedication alternatives had been considered a part of the approval criteria. Only 6 states requested that the prescriber confirm that the patient had undergone a psychological evaluation as part of the approval criteria. To more closely align with AAP best-practice guidelines for ADHD treatment of preschool-aged children, a prescriber would need to demonstrate, before medication could be prescribed, that the nonmedication treatment was not just considered but actually tried and that it subsequently failed to improve the patient's symptoms.[12] Our results show that only 1 state (Florida) had a policy that required a prescriber to demonstrate that nonmedication alternatives failed to improve the preschool-aged patient's symptoms as part of the authorization process.

By 2015, 27 states had implemented prior authorization policies that could affect prescription of pediatric ADHD medications. The effectiveness of prior authorization policies in decreasing prescribing rates has been tested on other drug classes, such as antipsychotics, and these policies have been shown to generally decrease prescribing rates.[29,30] It is not known, however, whether this widely used approach to controlling medication prescriptions affects medication-prescribing rates and behavior therapy rates for pediatric ADHD treatment.

Success in guiding prescribers toward treating pediatric ADHD with behavior therapy first depends on whether such therapy is accessible for the patient. In its clinical practice guidelines, AAP notes that there are often circumstances in which behavior therapy may not be available (ie, lack of available qualified providers, available providers too distant, insurance restrictions). In those circumstances, AAP recommends that the prescriber balance the risk of medication use at a young age against the potential harm of delaying ADHD diagnosis and treatment.[12] Such risks may be medication specific. Stimulants, the most common medication class used

in the pharmacological treatment of ADHD, may increase the risk for appetite suppression, sleep problems, upper abdominal pain, emotional outbursts, irritability, lethargy, repetitious behaviors and thoughts, social withdrawal, rebound, and psychotic effects, particularly in children who have one or more parents with a major depressive disorder, bipolar disorder, or schizophrenia.[11,16,31,32]

Aside from medication-specific risks, a prescriber may need to consider other factors affecting barriers to behavior therapy—namely, accessibility, affordability, and awareness. But the accessibility of these various therapy options depends on availability and the willingness or capability of a parent or teacher to participate, which is an issue that has been raised but warrants further study.[11,21,33] The costs of behavior therapy may also limit availability. This topic has not been widely examined, although a recent study suggests that initiating treatment with behavioral health interventions is more cost-effective than initiating treatment with medication therapy for pediatric ADHD.[34] Additional barriers to aligning prescribers' clinical practice with the AAP guidelines include provider lack of knowledge about the guidelines, lack of training on the benefits of recommended behavior therapy, and lack of awareness and availability of qualified providers of behavior therapy.[23]

Various strategies might be studied as a means to overcome the barriers to behavior therapy first, including feedback and training for providers to build awareness, training to increase capacity, and policy to guide clinical practice. State-based policy evaluation, in particular, may be used to identify how states can support the implementation of ADHD best practices, improve ADHD services provided to young children, and drive down the long-term costs associated with ADHD. Medicaid prior authorization policies aim to manage medication use to treat young children with ADHD and to guide prescribers toward best practices.[29,30] These policies hold promise to increase alignment between current practice and best practices. Evaluations are needed to determine if these heterogeneous policy interventions hold promise as a tool to support the use of behavior therapy as first-line ADHD treatment for children aged <6. The data presented here are available for such research.

Conclusions

Recent studies and clinical guidelines have highlighted the importance of prescribing behavior therapy as the first-line treatment for preschool-aged children with ADHD. Insurance prior authorization policies are one mechanism that may influence prescriber practices toward behavior therapy as the first-line method to treat ADHD; however, the impact of these policies has not yet been studied. This policy-mapping study highlights the diversity of 27 states with prior authorization policies and can be used in subsequent policy evaluation studies. Despite the fact that more than half of states have prior authorization policies that include ADHD medication, few state Medicaid programs have adopted consideration of nonmedication alternatives as a coverage authorization criterion. Although our data set was limited to policies in effect as of November 1, 2015, future research could extend this mapping study and use this comprehensive, systematic legal assessment mapping resource to evaluate the impact of these policies on ADHD treatment rates, particularly among young children.

Declaration of Conflicting Interests

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