Psychotropic Drug Use in Children

OVERVIEW

The objective of this Clinical Practice Guideline (CPG) is to provide evidence-based recommendations for the use of psychotropic medication in children and adolescents. This CPG highlights current nationally recognized guidelines, side effects of psychotropic drugs, children in foster care / state custody, controversies, and future considerations.

GUIDELINE HIERARCHY

CPGs are updated every two years or as necessary due to updates made to guidelines or recommendations by the American Academy of Child and Adolescent Psychiatry (AACAP) and the American Psychiatric Association (APA). When there are differing opinions noted by national organizations, WellCare will default to the member's benefit structure as deemed by state contracts and Medicaid / Medicare regulations. If there is no specific language pertaining to the psychotropic medication, WellCare will default (in order) to the following:

- National Committee for Quality Assurance (NCQA);
- FDA Guidelines;
- United States Preventive Services Task Force (USPSTF), National Quality Strategy (NQS), Agency for Healthcare Research and Quality (AHRQ);
- Specialty associations, colleges, societies, etc. (e.g., American Academy of Family Physicians, American Congress of Obstetricians and Gynecologists, American Cancer Society, etc.).

Links to websites within the CPGs are provided for the convenience of Providers. Listings do not imply endorsement by WellCare of the information contained on these websites. NOTE: All links are current and accessible at the time of MPC approval. WellCare aligns with the AACAP and APA on the topic of psychotropic medication. The following are highlights from their statement and guidelines, respectively.

AMERICAN ACADEMY OF CHILD AND ADOLESCENT PSYCHIATRY (AACAP)

The American Academy of Child and Adolescent Psychiatry (AACAP) published the following principles to guide treatment of children and adolescents with psychotropic drugs: [1]

1. Before initiating pharmacotherapy, a psychiatric evaluation is completed.
2. Before initiating pharmacotherapy, a medical history is obtained, and a medical evaluation is considered when appropriate.
3. The prescriber is advised to communicate with other professionals involved with the child to obtain collateral history and set the stage for monitoring outcomes and side effects during the medication trial.
4. The prescriber develops a psychosocial and psychopharmacological treatment plan based on the best available evidence.
5. The prescriber develops a plan to monitor the patient, short and long term.
6. Prescribers should be cautious when implementing a treatment plan that cannot be appropriately monitored.
7. The prescriber provides feedback about the diagnosis and educates the patient and family regarding the child's disorder and the treatment and monitoring plan.
8. Complete and document the assent of the child and consent of the parents before initiating medication treatment and at important points during treatment.
9. The assent and consent discussion focuses on the risks and benefits of proposed and alternative treatments.
10. Implement medication trials using an adequate dose and for an adequate duration of treatment.
11. The prescriber reassesses the patient if the child does not respond to the initial medication trial as expected.

Original Effective Date: 3/3/2016 - Revised: N/A

12. The prescriber needs a clear rationale for using medication combinations.
13. Discontinuing medication in children requires a specific plan.

The AACAP practice parameter also specifies that this approach is necessary for safe, effective and proactive treatment and should help decrease the stigma that some children and their parents may experience from participating in psychiatric care. This consistent and rigorous method for assessment and treatment should also safeguard against the:

- Introduction of unacceptable variability into the pharmacological treatment of children;
- Underuse of established psychosocial and pharmacological treatment approaches; and
- Prescription of ineffective/outdated treatment approaches, inappropriate medications or medication combinations.

The recommended practices are implemented in an effort to eliminate demoralization experienced by patients and families receiving substandard treatment, "dropping out" of care or not seeking necessary treatment in the future.[2]

The AACAP also published *A Guide for Community Child Serving Agencies on Psychotropic Medications for Children and Adolescents.* The document addresses the following areas:[2]

- Context for Prescribing Psychotropic Medications
- Phases in Treatment
- Issues in Prescribing
- Considerations for Child Serving Agencies
- Sources of Information about Psychotropic Medications

Psychotropic medicines are taken for the purpose of improving the emotional and behavioral health of a child or adolescent diagnosed with a mental health condition. There is evidence that psychotropic medications are both over and under-prescribed for children and adolescents. Overall, the use of psychotropic medications in children and adolescents has been increasing over the past 20 years, as evidence to support effectiveness when used appropriately has increased. Prescribing psychotropic medications for children and adolescents requires a competent prescriber, optimally a child and adolescent psychiatrist, with training and qualifications in the use of these medications in this age group.[2]

Psychotropic medications are only one component of a comprehensive biopsychosocial treatment plan that must include other components in addition to medication. A comprehensive treatment plan requires a collaborative, team effort. The term biopsychosocial recognizes the three domains that impact a youth's emotional and behavioral well-being that must be considered in creating a comprehensive treatment or service plan.[2]

Professionals in child serving agencies can best support the treatment of youth with a mental illness by ensuring access to a comprehensive diagnostic assessment including biopsychosocial formulation conducted by a qualified licensed mental health professional in collaboration with the youth and the family. Discussions and use of psychotropic medication should recognize and address an individual's and family's cultural beliefs. A comprehensive assessment will include options for support and treatment that extend beyond just prescribing medications. [2]

AMERICAN PSYCHIATRIC ASSOCIATION (APA)

Through the American Board of Internal Medicine's Choosing Wisely initiative, the APA published *Five Things Physicians and Patients Should Question*. The APA states that antipsychotic medications should not be routinely prescribed as a first-line intervention for children and adolescents for any diagnosis other than psychotic disorders. FDA approved and/or evidence supported indications for antipsychotic medications in children and adolescents include psychotic disorders, bipolar disorder, tic disorders, and severe irritability in children with autism spectrum disorders; there is increasing evidence that antipsychotic medication may be useful for some disruptive behavior disorders. **Children and adolescents should be prescribed antipsychotic medications only after having had a careful diagnostic assessment with attention to comorbid medical conditions and a review of the patient's prior treatments.** Efforts should be made to combine both evidence-based pharmacological and psychosocial interventions and support. **Limited availability of evidence based psychosocial interventions may make it difficult for every child to receive this ideal combination.** Discussion of potential risks and benefits of medication treatment with the child and their guardian is critical. A short and long term treatment and monitoring plan to assess outcome, side effects, metabolic status and discontinuation, if appropriate, is also critical. The evidence base for use

of atypical antipsychotics in preschool and younger children is limited and therefore further caution is warranted in prescribing in this population.[3]

PRINCIPLES OF PRACTICE: USE OF PSYCHOTROPIC MEDICATION IN CHILDREN UNDER AGE 6

The University of South Florida (USF) College of Behavioral Community Sciences and the Agency for Health Care Administration (AHCA) published the *Florida Psychotherapeutic Medication Guidelines for Children and Adolescents.* The aim of the guidelines is to provide guidance to clinicians in using psychotherapeutic medication to treat children and adolescents with behavioral health conditions. The guidelines cover a range of conditions including ADHD, anxiety disorders, severe or chronic bipolar disorder, depression, impulsive aggression, insomnia disorder, obsessive-compulsive disorder (OCD), post-traumatic stress disorder in preschool-age children, early onset schizophrenia, and tic disorders. [4]

Principles of Practice Regarding the Use of Psychotropic Medication in Children under Age 6 [4]

Level 0 consists of the following components:

- Conducting a comprehensive multi-informant, multi-modal, multi-disciplinary assessment for those with positive screen; and
- Using validated measures for assessing psychiatric symptoms and impairment in young children.

Recommended measures* of early childhood symptoms include:

- Ages 16 to 30 months: Modified Checklist for Autism in Toddlers (M-CHAT)
- Ages 2 to 4 years old and 4 to 11 years old: Strengths and Difficulties Questionnaire (SDQ)
- Ages 3 to 21 years old: The Child /Adolescent Psychiatry Screen (CAPS)
- Ages 4 to 11 years old: Home Situations Questionnaire (HSQ)

* Links to measures listed above are available at http://medicaidmentalhealth.org/resourcesLinks/diagnosticTreatmentScales.cfm

A comprehensive mental health assessment includes:

- A comprehensive assessment of the full range of psychiatric symptoms and disorders, as well as impairment from these symptoms and disorders.
- A full developmental assessment.
- A full medical history including a sleep history.
- A relevant medical work-up, physical examination, and nutritional status evaluation.
- An assessment of family psychiatric history which includes past and current history of parental psychiatric illnesses, substance abuse and treatment history of parents, parental figures (e.g., stepparent), siblings, and other relatives.
- An assessment of family structure and functioning, parent-child relationship and interaction.
- An assessment of environmental risk factors and stressors including history of abuse (physical, sexual, neglect), traumatic life events, domestic violence, economic instability, etc.

Level 1 begins with psychosocial treatment. Parental involvement is essential as well as involvement of other caregivers and/or school-based interventions as needed. In addition, Level 1 consists of the following components:

- Monitoring the child's response to treatment using reliable and valid measures of changes in targeted symptoms; and
- Except in rare cases, attempt a course of at least 12 weeks of psychosocial interventions before considering medication.

Level 2 consists of first asking if medications are being considered – the clinician should first reassess diagnosis and diagnostic formulation. If a decision is made to initiate medication:

- Initiate with monotherapy. Start low, go slow.
- Except in rare cases, use monotherapy.
- After 6 to 9 months of stabilization, plan down titration trial to determine if the medication is still needed and

effective, (taper or discontinuation trial).
- Continue psychosocial treatment during treatment with medication.
- Use of psychotherapeutic medication in children under the age of 24 months is not recommended unless there are rare and extenuating circumstances.

Monitoring Parameters

Suggested monitoring parameters for baseline and regular monitoring for side effects for second generation antipsychotics include:

- BMI
- Fasting glucose
- Vital signs
- Family history of dyslipidemia or diabetes
- Screening for Involuntary Movements (AIMS)
- Lipid profile in higher risk children (obese, positive family history, etc.)

PHARMACY

FDA indications and ages approved by the FDA for psychotropic medications. Please visit http://sites.magellanhealth.com/media/549654/at-a-glance_druginformation.pdf [5]

At the time of approval of the CPG, the link above was current. This link is not maintained by WellCare and may change.

SIDE EFFECTS

The AACAP note the following significant safety issues and concerns associated at treatment initiation and even with sustained use of second generation antipsychotics (SGA):

- Weight gain, diabetes and hyperlipidemia;
- Cardiovascular problems (e.g., prolongation of QTc interval, orthostatic hypotension, tachycardia and pericarditis and coronary artery disease associated with weight gain);
- Neutropenia and potential agranulocytosis;
- Hepatic dysfunction;
- Elevation of prolactin levels;
- Electroencephalogram (EEG) abnormalities and possible seizure activity;
- Potential for the development of extrapyramidal symptoms, tardive dyskinesia and withdrawal dyskinesias;
- Neuroleptic malignant syndrome; and
- Formation of cataracts.

The AACAP practice parameter underscores the importance of prescribers in consulting the existing scientific literature before selecting the SGA agent. Currently, SGAs clozapine, risperidone, olanzapine, quetiapine, ziprasidone, paliperidone and aripiprazole have published pediatric clinical trial data, but the more recently FDA approved SGA, asenapine, has no data pertaining to its use in the young population. Since the current FDA-approved indication for SGA use in children and adolescents includes only schizophrenia, bipolar disorder and specific symptoms of autism, the clinician is strongly urged to consider alternative pharmacological or psychosocial treatments for these other specific problems (i.e., disruptive behavior disorders and aggression).

Pregnancy and In Utero. The unknown long-term safety effects of psychiatric drugs taken by children and adolescents also includes their potential impact on **developing organs, skeletal system, brain and central nervous system of a fetus in utero and throughout child's entire growth period.** Developmental effects of drugs may include minor and major malformations (i.e. somatic teratogenesis) in the embryonic phase or effects on the fetus and breastfeeding infant which can affect the child's subsequent behavior, cognitive abilities and/or emotional regulation (i.e., neurobehavioral teratogenesis). The FDA issued warnings against the use of the following drugs during pregnancy:

- **FGA/SGA antipsychotic drugs** for abnormal muscle movements and withdrawal symptoms in newborns;
- **Valproic acid** for risk of neural tube birth defects;

- **Topiramate** for risk of cleft lip/palate defects;
- **SSRIs** for increased risk (i.e., up to 6 times more) of neonatal persistent pulmonary hypertension (PPHN) after the 20th week of gestation;
- Changing **paroxetine** assigned pregnancy category from C (i.e., risk cannot be ruled out) to D (i.e., positive evidence or risk to humans, risk may outweigh benefit) due to an increased risk of congenital malformations, particularly cardiovascular, in the first trimester of pregnancy.

Bone Mass Reduction. In a study presented at the American Society of Clinical Psychopharmacology (ASCP) 2014 Annual Meeting, researchers that prospectively assessed the skeletal effects of these psychotropic drugs found that long-term SSRI treatment in children and adolescents was associated with reduced bone mass, and that long-term risperidone treatment was associated with failure to accrue bone mass. A study funded by the National Institutes of Health has completed; the study randomly assigned youth who were receiving risperidone to also receive placebo or calcium and vitamin D supplementation, to see whether the supplement would counteract the adverse skeletal effects of risperidone. The 5-year study results are being confirmed with additional studies. Researchers stressed that prescribers must be careful when making a diagnosis and prescribing a medication over an extended period of time and the long term effects; this is important as bone mineralization peaks during childhood and adolescence.[6]

Cardiovascular Effects. While stimulant medication has strong evidence and clinical history of efficacy in treating core ADHD symptoms, apprehension continues on the use of stimulants in the treatment of ADHD due to concerns about cardiovascular side effects and stunted growth rates in children. In 2008, a joint advisory statement of the American Academy of Pediatrics (AAP) and the American Hospital Association (AHA) responded to a very small increase in sudden death from adverse cardiac events in children taking methylphenidate and amphetamine. The advisory recommended a physical exam and expanded patient/family health history focusing on cardiovascular disease risk factors (e.g., specific cardiac symptoms, Wolf-Parkinson-White syndrome, sudden death in the family, hypertrophic cardiomyopathy and long QT syndrome) and an electrocardiogram (EKG) at the physician's discretion for children being prescribed stimulants. The professional medical communities issuing this advisory recommended reasonable screening measures which would not result in a reduction in access to stimulant treatment.[4]

Endocrine and Metabolic Effects. Despite increasing use of psychotropic medications in children and adolescents, data regarding efficacy and safety are limited. Endocrine and metabolic adverse effects are among the most concerning adverse effects of common psychotropic medications. Because youth are still developing at the time of psychotropic drug exposure, most reference values need to be adjusted for gender and age. As in adults, youngsters receiving lithium require monitoring for thyroid dysfunction. Psychostimulants appear to cause mild reversible growth retardation in some patients, most likely because of decreased weight or slowing of expected weight gain; some patients may experience clinically significant reductions in adult height. Although still controversial, valproate use has been associated with an increased risk for polycystic ovary syndrome, in addition to causing weight gain. Although more data are required, children and adolescents appear to be at higher risk than adults for antipsychotic-induced hyperprolactinemia, weight gain, and possibly, associated metabolic abnormalities, which is of particular concern. Clinicians and caregivers need to be aware of potential endocrine and metabolic adverse effects of psychiatric medications. A careful selection of patients, choice of agents with potentially lesser risk for these adverse events, healthy lifestyle counseling, as well as close health monitoring are warranted to maximize effectiveness and safety. [7]

Loss of Appetite. The Multimodal Therapy of ADHD (MTA) Study revealed the persistent effect of stimulant agents on decreasing growth velocity, especially when children are on higher doses. The AACAP Parents Medical Guide Workgroup recommends focusing on the timing of the child's dosing as not to interfere with appetite and maintenance of adequate caloric intake.[4]

CHILDREN IN FOSTER CARE / STATE CUSTODY

According to the American Academy of Child & Adolescent Psychiatry (AACAP), approximately 85% of children in the child welfare system meet the criteria for a psychiatric diagnosis. State government public sector health systems face a trend where children in foster care have become increasingly more vulnerable to inappropriate and excessive medication use. These children have many needs related to emotional and psychological stress because they have typically experienced abuse in neglectful, serial or chaotic caretaking environments and often present with past traumatic and reactive attachments that can mimic or complicate mental disorders.[1]

Children in state custody* often have biological, psychological, and social risk factors that predispose them to emotional and behavioral disturbances (e.g., genetic predisposition, in utero exposure to substances of abuse, medical illnesses, cognitive deficits, a history of abuse and neglect, disrupted attachments, and multiple placements). Unfortunately, resources lack in this area and due to multiple placements, medical and psychiatric care is frequently fragmented. These factors present profound challenges to providing high quality mental health care to this unique population. Unlike mentally ill children from intact families, these children often have no consistent interested party to provide informed consent for their treatment, to coordinate treatment planning and clinical care, or to provide longitudinal oversight of their treatment.[1]

The State has a duty to perform this protective role for children in State custody. However, the State must also take care not to reduce access to needed and appropriate services. Many children in State custody benefit from psychotropic medications as part of a comprehensive mental health treatment plan. Due to several highly publicized cases of questionable inappropriate prescribing, treating youth in State custody with psychopharmacological agents has come under increasingly intense scrutiny. Some states have implemented consent, authorization, and monitoring procedures for the use of psychotropic medications for children in state custody. However, these policies often have unintended consequences (e.g., delaying provision of or reducing access to necessary medical care).[1]

Studies show differences in atypical antipsychotic medication use that varied by age, Medicaid eligibility, and diagnostic status. Youth in foster care diagnosed with ADHD and no other comorbid illness were three times more likely to be taking atypical antipsychotics and for an additional 100 days per year than their peers enrolled in Medicaid because of low family income. Side effects (e.g., weight gain, high cholesterol, elevated blood glucose, insulin resistance) can occur with use of antipsychotic drugs; researchers stressed the need for review of each case before prescribing as well as continued monitoring and research to assure that the benefits of these medications outweigh the risks in children and adolescents. Exposure to atypical antipsychotics in Medicaid-insured youth, in particular for children in foster care and those diagnosed with ADHD, was substantial, warranting outcomes research for long-term effectiveness, safety, and oversight for appropriate cardiometabolic monitoring.[8]

Prescribers are defined by the scope of practice by State and Federal Law.

* The State has assumed all parental responsibilities and decision-making for the child.

Children in state custody should receive psychosocial treatment prior to prescribing of medication.

The AACAP developed the following basic principles regarding the psychiatric and pharmacologic treatment of children in state custody:[1]

1. Every youth in state custody should be screened and monitored for emotional and/or behavioral disorders. Youth with apparent emotional disturbances should have a comprehensive psychiatric evaluation. If indicated, a biopsychosocial treatment plan should be developed.
2. Youth in state custody who require mental health services are entitled to continuity of care, effective case management, and longitudinal treatment planning.
3. Youth in state custody should have access to effective psychosocial, psychotherapeutic, and behavioral treatments, and, when indicated, pharmacotherapy.
4. Psychiatric treatment of children and adolescents requires a rational consent procedure. This is a two-staged process involving informed consent provided by a person or agency authorized by the state to act in loco parentis and assent from the youth.
5. Effective medication management requires careful identification of target symptoms at baseline, monitoring response to treatment, and screening for adverse effects.
6. States developing authorization and monitoring procedures for the use of psychotropic medications for youth in state custody should use the principles in this document as a guide and should assure that children and adolescents in state custody get the pharmacological treatment they need in a timely manner.

Studies have shown that in addition to being in foster or state care, other factors that increase the risk of improper use of psychotropic drugs in children and youth include being poor, living in group care, being hospitalized in psychiatric

inpatient units, and/or being incarcerated. Children in foster care receiving any type of medication must have the consent of a caregiver. However, states differ in medication consent authority since some require biological parent permission, whereas others require a state board/panel, foster parent, the court or other designated authorities (e.g., physicians or staff in residential settings). **States still report many cases where children in foster care were given psychotropic drugs without the required legal consent.** Child advocates and clinicians see this as an area that needs to be rectified given the importance of the decision to use psychotropic agents in children. It is critical that the caregiver with consent authority be familiar with the specific child's needs, the therapeutic agents being prescribed and the intended impact/clinical outcomes for the specific agents. Professional second opinions are uniformly recommended in cases that may be complex (e.g., children under 6 years, pregnant teens, multiple medications), involve atypical antipsychotic medications or demonstrate treatment-resistance.

CONTROVERSIES

ADHD Diagnosis

A study funded by the National Institute of Mental Health reviewed 1600 patient charts produced by 188 pediatricians at 50 Ohio practices. Findings revealed that current pediatrician-delivered ADHD care in particular leaves much room for improvement. Physicians do a good job of diagnosing ADHD however monitoring patients' progress in the months and years afterward is needed. Approximately 70 percent of the charts documented use of DSM-IV criteria during assessment while only about 55 percent contained rating scales completed by parents or teachers. Once diagnosed, 93 percent of patients were prescribed medications and 13 percent received psychosocial treatment. Only 47 percent had a return contact (visit or phone) in the first month of treatment, and average times to collect a parent or teacher rating scale after prescribing were more than a year. [9,11]

The study also found a significant interaction between Medicaid enrollment and academic affiliation. As the proportion of Medicaid patients at a practice increased, rates of psychosocial treatment increased at nonacademic practices and decreased at academic practices. The pattern is attributed to delays at busy academic centers in scheduling follow-up psychosocial appointments. Study authors stress that improvements must be collaborative, between doctors and families to improve ADHD care in particular. Physicians should take more responsibility for collecting rating scales during assessment and monitoring and maintaining contacts during the first year of treatment (e.g., creating reminders in the electronic health record). During the years following a diagnosis (especially years two and three), patients and families must push for more contact; more use should be made of teacher and parent rating scales for monitoring as well.[9,11]

Preschool Age Children

The use of psychotropic medication in children of preschool age is a practice that is severely limited by the lack of evidence targeted to this age group. This phenomenon is compounded by serious questions concerning the long-term prospective validity of psychiatric diagnoses in very young children.[4] In addition, there is no clear understanding of the long term effects of psychotropic medication on the developing brain.[1]

Dosage by Weight

In addition to considering the long-term prospective validity of a diagnosis when selecting a medication, it is important to understand that psychiatric medications (except methylphenidate) are not dosed by weight as are other pediatric medications. Prescribers should "start low and go slow" which is essential for safe medication administration.[1]

Safe Kids Worldwide, in partnership with the American Association of Poison Control Centers, analyzed data from the National Poison Data System to better understand what types of medicine children are getting into and how it happens. They published the top products resulting in moderate or major effects by age group. Among the unintentional-general and therapeutic error cases where a child ages 1 to 4 experienced moderate or major effects, the medicines most often involved were clonidine used to treat high blood pressure and ADHD (10 percent); benzodiazepines used to treat conditions such as anxiety and insomnia (7 percent); and amphetamines and related compounds often used to treat ADHD (6 percent). Benzodiazepines were also identified in a study looking at hospitalizations for young children who got into medicine that found that the types of medicine most often involved were opioids (prescription pain relievers) and benzodiazepines.[10]

Top Ten Products Resulting in Moderate or Major Effects by Age Group, 2013

	<1 year (n=515)	1-4 years (n= 6,548)	5-9 years (n=1,356)	10-14 years (n=690)	15-19 years (n=935)
1	Amphetamines and Related Compounds 10.3%	Clonidine 10.0%	Clonidine 14.8%	Atypical Antipsychotics 10.4%	Atypical Antipsychotics 6.7%
2	Clonidine 6.4%	Benzodiazepines 6.8%	Atypical Antipsychotics 9.4%	Clonidine 9.1%	Amphetamines and Related Compounds 4.2%
3	Miscellaneous Unknown Drugs 4.3%	Amphetamines and Related Compounds 6.4%	Antihypertensives (Excluding Diuretics) 8.3%	Antihypertensives (Excluding Diuretics) 6.8%	Diphenhydramine Alone (Unknown if OTC or Rx) 3.7%
4	Atypical Antipsychotics 3.9%	Oral Hypoglycemics: Sulfonylureas 5.0%	Methylphenidate 6.3%	Methylphenidate 6.5%	Clonidine 3.5%
5	Buprenorphine 3.7%	Atypical Antipsychotics 5.0%	Amphetamines and Related Compounds 6.3%	Amphetamines and Related Compounds 6.1%	Acetaminophen Alone 3.3%
6	Oxycodone Alone or in Combination (Excluding Combination Products with Acetaminophen or Acetylsalicylic Acid) 3.3%	Miscellaneous Unknown Drugs 3.5%	Other Types of Sedative/Hypnotic/ Anti-Anxiety or Anti-Psychotic Drug 4.1%	Other Types of Sedative/Hypnotic/ Anti-Anxiety or Anti- Psychotic Drug 3.3%	Benzodiazepines 3.1%
7	Benzodiazepines 2.9%	Beta Blockers (Including All Propranolol Cases) 2.8%	Miscellaneous Unknown Drugs 3.3%	Benzodiazepines 2.9%	Ibuprofen 2.9%
8	Methylphenidate 2.7%	Diphenhydramine Alone (Unknown if OTC or Rx) 2.6%	Benzodiazepines 3.1%	Diphenhydramine Alone (Unknown if OTC or Rx) 2.5%	Dextromethorphan Preparations (Not Otherwise Classified) 2.7%
9	Beta Blockers (Including All Propranolol Cases) 2.5%	Buprenorphine 2.5%	Diphenhydramine Alone (Unknown if OTC or Rx) 2.8%	Valproic Acid 2.3%	Antihistamine and/ or Decongestant with Dextromethorphan without Phenylpropanolamine 2.4%
10	Oral Hypoglycemics: Sulfonylureas 2.3%	Antihypertensives (Excluding Diuretics) 2.1%	Other Antihistamines Alone (Excluding Cough and Cold Preparations) 2.4%	Acetaminophen Alone 2.2%	Methylphenidate 2.4%

Increased Suicidality

The treatment of depression in children and adolescents was significantly altered in October 2003 when the FDA released a public health advisory alerting professionals of increased suicidality in clinical trials of antidepressants in the pediatric population. In 2004, a black box warning was issued for all antidepressants for patients under 18 years of age prompting a precipitous drop of 25% in rates of both diagnosis and treatment of depression by pediatric and non-pediatric primary care physicians. An FDA committee later conducted a meta-analysis of 24 clinical trials of nine antidepressants (n=4,400) in the pediatric population which showed a very small increase (0.7%) in risk of suicidal thinking/behavior, but no increase in actual completed suicides. Further data revealed that trepidation in using antidepressants for this population actually created a barrier to treatment and resulted in a corresponding 25% increase in completed suicide rate in children and adults. At the time of publication, the AACAP Parents Medical Guide Workgroup recommends to parents and caregivers that "through careful monitoring, the development of a safety plan, and the combination of medication with psychotherapy, the risks for increased suicidal thoughts can be managed. For moderate to severe depression, there is benefit in the use of medication because of a higher rate of relief, and more complete relief, from depressive symptoms than not using any medication".[1]

Role of Primacy Care Providers (PCP)[1,11]

According to the AACAP, a shortage exists of child and adolescent psychiatrists in addition to more limited insurance coverage for inpatient and residential treatment. Few outpatient psychotherapy services provided by psychiatrists

have developed. As a result of these trends, the Bazelon Center for Mental Health Law reports that primary care providers now furnish over one-half of the mental health treatment in this country and that about 25% of all primary care recipients have a diagnosable mental disorder. The majority of treatment for behavioral health conditions occurs in pediatric primary care settings. There is concern that too much is expected of these providers as they lack extensive training in behavioral health or the support of mental health specialists in their practice.[1]

Research indicates that while PCPs are most comfortable in prescribing stimulant drugs, many do prescribe atypical antipsychotics and other combinations. This also indicated that although studies have shown similarities in medications and dosing when comparing primary care and psychiatric practices, the patient retention rate beyond the first visit was much higher for psychiatrists. Given the significant national shortage of child psychiatrists, there remains a realistic need to rely on primary care clinicians to perform screenings of children for mental disorders and treat uncomplicated ADHD, anxiety, or depression. Further, there is concern with pediatric patients not receiving follow-up care and ongoing monitoring of mental health problems.[1]

FUTURE CONSIDERATIONS

The challenge of ensuring that children and adolescents receive evidence based mental health treatment requires a multi-pronged approach where children and families access and accept treatment, providers gain the necessary skills/knowledge and organizations and funding policies align to support them. Since most of mental health treatment is currently provided in primary care practices, there is a need for primary care clinicians and behavioral health specialists to forge new collaborative relationships that enhance the delivery of evidence-based care to affected children and their families. Well-designed pilot projects where primary care providers and child psychiatrist have used consultation, collaboration and co-management employing telephonic, video conferencing and on-site educational case reviews/training sessions have been lauded as model programs. Professional and consumer advocacy groups along with managed care organizations have urged state governments and health care systems to consider them as viable alternative approaches.[1]

To achieve the goal of increased personalized treatment of our young population is to be accomplished, the future direction for pediatric psychopharmacological research must provide a platform to: [1]

- Identify clinical and biological response predictors of treatment;
- Generate precise benefit and risk estimates of treatment in patient subgroups;
- Increase understanding of psychotropic drug exposure on the developing brain;
- Study the moderators, mediators, biomarkers and biosignatures of treatment outcome; and
- Test multi-stage treatment strategies utilizing dynamic/multimodal treatment regimes.

MEDICAL LITERATURE REVIEW

Although psychotropic medications are often effective at treating psychiatric symptoms, the risk of adverse effects (AE) in children is unclear. Current research seeks to identify the mental health characteristics of those children at highest risk of experiencing potential AE from psychotropic medications. Results of one study showed that the total number of potential AE was positively predicted by the number of DSM-IV categories diagnosed, as well as behavioral symptoms of impulsiveness and uncooperativeness. The findings indicate that the number of potential AE from psychotropic medications may be predictable based on client characteristics. Predicting this likelihood during initial assessment can be useful in directing and monitoring treatment and in preventing serious AE. [7]

Pidano and Honigfeld summarized recent findings from large epidemiologic studies and identified key trends:[5]

- A two- to three- fold increase in the percentage of child/adolescent patients taking any psychotropic medication over a ten year (1987 – 1996) period;
- Adolescent office visits to physicians resulting in an increase in psychopharmacological prescriptions (i.e., 3.4% in 1994 – 1995 to 8.3% in 2000 – 2001) manifesting an overall child/adolescent (ages 6 – 17 years) psychopharmacological prescription rate of 8.8%; and
- A trend for psychotropic drugs becoming more pronounced for male patients (i.e., 10% of visits). The drugs prescribed most often were various agents for treating attention-deficit hyperactive disorder, antidepressants, antipsychotics, mood stabilizers, and sedative-hypnotics.

Another large retrospective cohort study using data from the National Ambulatory Medical Care Survey from 1993 to 2002 and analyzed office visits to physicians by children and adolescents. The findings revealed an approximate six-fold national increase in the absolute number of office-based visits that included prescription of antipsychotic medications among this population.[1]

One study found that new use of antipsychotics among children and adolescents nearly doubled in the 6 years after the introduction of the atypical psychotics for young persons (aged 2 – 18 year) enrolled in Tennessee's managed Medicaid program (TennCare) from 1996 through 2001. [5]

Data published by the Government Accountability Office (GAO) continue to verify these trends despite efforts by providers, children's advocates and others to improve mental health treatment practices. The GAO report analyzed nationwide data from the Medical Expenditure Panel Survey (MEPS) from 2007 through 2009 for children (ages 0 through 20 years) in Medicaid, State Children's Health Insurance Programs (CHIP) and foster care comparing them against children that were privately insured. Findings showed that on average, 6.2% of noninstitutionalized children in Medicaid nationwide and 4.8% of privately insured children took at least one psychotropic medication during a calendar year and noted that boys continue to have a utilization rate twice as high as girls (i.e., 8.4% versus 3.9%). In addition, the GAO found that children in Medicaid were over twice as likely as privately insured children to take an antipsychotic medication (i.e., 1.3% versus 0.5%). The GAO recommended to Congress that federal and state initiatives be developed to improve monitoring, oversight, and continued assessment of the prescribing of psychotropic medications to vulnerable populations. Despite cumulative research evidence, psychotropic medications are employed too early in the treatment regimen rather than attempting to ameliorate the child's psychiatric symptomatology with psychosocial, behavioral or family interventions as a first step or augmenting treatment. [5]

Another overarching issue to consider in pediatric psychopharmacologic practice is the fact that most medications used with preschool children are administered "off label" and used to treat symptoms/conditions for which they were not granted approval by the Food and Drug Administration (FDA).[1] Fanton et al. alerted clinicians that "children have been described as 'therapeutic orphans' in the US drug regulatory system…noting that "preschool populations have been neglected more than school-aged peers." In 2009 there were four medications approved for psychiatric indications in children younger than 6 years of age (e.g., haloperidol, chlorpromazine, d-amphetamine and risperidone). Approximately 31% of psychotropic medications have been approved by the FDA for use in children or adolescents. Currently more than 75% of prescriptions written for psychiatric illness in the population is "off label".[5]

MEASUREMENT OF COMPLIANCE

WellCare is committed to adhering to the Healthcare Effectiveness Data and Information Set (HEDIS), a set of performance measures developed and maintained by the National Committee for Quality Assurance (NCQA). The following HEIDS measurements are used to assess practitioner compliance with this guideline.

Adherence to Antipsychotic Medications for Individuals with Schizophrenia. Members 18 to 64 years of age with schizophrenia should remain on an antipsychotic medication for at least 80% of their treatment period.

Cardiovascular Monitoring for People with Cardiovascular Disease and Schizophrenia. Members 18 to 64 years of age with schizophrenia and cardiovascular disease should have an LDL-C test annually.

Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are Using Antipsychotic Medications. Members 18 to 64 years of age with schizophrenia or bipolar disorder who were dispensed an antipsychotic medication should have an annual diabetes screening.

Diabetes Monitoring for People with Diabetes and Schizophrenia. Members 18 to 64 years of age with schizophrenia and diabetes should have an annual LDL-C test and HbA1c test.

Follow-Up Care for Children Prescribed ADHD Medication (ADD) Measure. The percentage of children newly prescribed attention-deficit/hyperactivity disorder (ADHD) medication who had at least three follow-up care visits within a 10-month period, one of which was within 30 days of when the first ADHD medication was dispensed. Two rates are reported:

Initiation Phase. The percentage of members 6–12 years of age as of the IPSD with an ambulatory

prescription dispensed for ADHD medication, who had one follow-up visit with practitioner with prescribing authority during the 30-day Initiation Phase.

Continuation and Maintenance (C&M) Phase. The percentage of members 6–12 years of age as of the IPSD with an ambulatory prescription dispensed for ADHD medication, who remained on the medication for at least 210 days and who, in addition to the visit in the Initiation Phase, had at least two follow-up visits with a practitioner within 270 days (9 months) after the Initiation Phase ended.

The following measures are used to assess compliance during Medical Record Review (MRR):

- Developmental history
- Physical exam during visits
- Rating scale (e.g., Conners, Vanderbilt or equivalent)
- Parent and member education
- Medication management

Use of Multiple Concurrent Antipsychotics in Children and Adolescents (APC). Members 1–17 years of age who were on two or more concurrent antipsychotic medications. (Note: A lower rate indicates better performance).

RELATED CLINICAL PRACTICE GUIDELINES

Visit WellCare.com for additional behavioral health related Clinical Practice Guidelines.

REFERENCES

1. American Academy of Child and Adolescent Psychiatry. AACAP Position Statement on Oversight of Psychotropic Medication Use for Children in State Custody: A Best Principles Guideline. https://www.aacap.org. Published (n.d.). Accessed February 18, 2016.
2. American Academy of Child and Adolescent Psychiatry. A Guide for Community Child Serving Agencies on Psychotropic Medications for Children and Adolescents. http://www.aacap.org. Published February 2012. Accessed February 18, 2016.
3. American Psychiatric Association: Five Things Physicians and Patients Should Question. Choosing Wisely Web site. http://www.choosingwisely.org/societies/american-psychiatric-association/. Published 2013 (updated 2015). Accessed February 25, 2016.
4. Florida psychotherapeutic medication guidelines for children and adolescents. University of South Florida College of Behavioral Community Sciences Web site. http://www.medicaidmentalhealth.org. Published 2015. Accessed July 10, 2015.
5. Appropriate Use of Psychotropic Drugs Children and Adolescents. Magellan Health Services Web site. http://sites.magellanhealth.com/media/549654/at-a-glance_druginformation.pdf. Accessed February 26, 2016.
6. Lowry F. Psychotropic drugs can reduce bone mass in kids. http://www.medscape.com/viewarticle/827275. Published June 24, 2014. Accessed February 27, 2016.
7. Correll CU, Carlson HE. Endocrine and Metabolic Adverse Effects of Psychotropic Medications in Children and Adolescents. Journal of the American Academy of Child and Adolescent Psychiatry. 2006;45(7):771–791. DOI: http://dx.doi.org/10.1097/01.chi.0000220851.94392.30
8. Psychiatric News Alert: Antipsychotic Use in Children on Medicaid Needs Close Monitoring, Researchers Suggest. American Psychiatric Association Web Site. http://www.psychiatricnews.org. Published April 10, 2014. Accessed February 29, 2016.
9. Levin A. Pediatricians Urged to Adhere Better to ADHD Care Practices. http://www.psychiatricnews.org. Published January 2015. Accessed February 29, 2016.
10. Medicine Safety for Children: An In-Depth Look at Calls to Poison Centers. Safe Kids Worldwide Web site. http://www.safekids.org. Published March 2015. Accessed February 29, 2016.
11. Schwarz A. The selling of Attention Deficit Disorder. New York Times. http://www.nytimes.com. Published December 14, 2013. Accessed February 29, 2016.

LEGAL DISCLAIMER

MEDICAL POLICY COMMITTEE HISTORY AND REVISIONS

Date	History and Revisions by the Medical Policy Committee
3/3/2016	• Approved by MPC. New.