

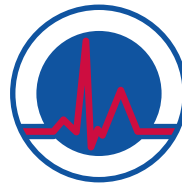
2018-2019 Florida Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents



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& COMMUNITY SCIENCES

Florida Medicaid Drug Therapy
Management Program for Behavioral Health



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Introduction, Purpose, and Process for Creating the Guidelines

INTRODUCTION

The National Research Council and Institute of Medicine reports that 13 to 20% of children (up to 1 in 5 children) living in the United States experience a mental disorder in a given year (National Research Council and Institute of Medicine, 2009; Centers for Disease Control and Prevention, 2018). Studies have found that rates of behavioral health diagnoses such as Attention Deficit Hyperactivity Disorder (ADHD) are more prevalent among rural communities and lower income families (Pulcini, et al., 2017; Yallop, et al., 2015). Yet, many children, particularly those living in rural areas, lack access to timely behavioral health services and interventions. Left untreated, children and adolescents with behavioral health conditions experience many potential consequences over the long-term, including more frequent symptom exacerbations, development of co-morbid physical health issues, increased risk for involvement in the juvenile justice system, higher risk for substance use, poorer academic achievement, difficulty with employment, poorer social relationships, and an overall lower quality of life.

Social determinants of health, defined as the conditions in the places where people live, learn, work, and play, are also increasingly recognized as factors that affect a wide range of health risks and outcomes. Disparities in economic stability, quality of living environments, access to health services, social and community resources, and education levels all have an impact on behavioral health outcomes (Healthy People 2020, "Social Determinants of Health," 2019). Integration of behavioral and primary care services, coordination of services across the continuum of care, increased access to behavioral health care in rural and underserved communities, and early diagnosis and intervention are all key components of improving the long-term health outcomes for children and adolescents with behavioral health diagnoses. As a means to facilitate improved access to behavioral health services and treatment, these guidelines provide treatment recommendations targeted towards primary care providers and other clinicians based on a review of the latest literature, assessment of the strength of the evidence for treatment recommendations, and expert clinical consensus.

PURPOSE

The purpose of the **2018-2019 Florida Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents** is to provide recommendations for psychotherapeutic medication prescribing based on the latest evidence and clinical consensus for a range of severe behavioral health symptoms and diagnoses.

PROCESS FOR CREATING THE GUIDELINES

Every two years, the Florida Medicaid Drug Therapy Management Program for Behavioral Health organizes diverse array of stakeholders known as the Florida Expert Panel to review and update the *Florida Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents*. The 2018 Florida Expert Panel consists of local and nationally recognized experts, academicians, medical directors of Florida Medicaid health plans and community mental health centers (CMHCs), child and adolescent psychiatrists, pediatricians, primary care providers, and pharmacists.

The 2018 Expert Panel met in Tampa, Florida on November 2-3, 2018 to review and update the previous version of the Florida Best Practice Psychotherapeutic Medication Guidelines, which was published after the last consensus meeting in October 2016. For each condition, a child and adolescent psychiatrist who is a nationally recognized content expert conducted a full review,

Organization and Disclaimer

presented the findings to the expert panel, and made suggestions to the panel on proposed revisions. The expert panel then discussed the proposed revisions and reached a consensus about whether or not to revise and adopt a particular set of guideline recommendations. The final guidelines are a product of both an in-depth review of the literature with an emphasis on the highest level of clinical evidence (e.g., randomized controlled trials, systematic reviews), expert consensus on the strength of the evidence, and consideration of safety and efficacy. The names of the meeting attendees and meeting presentations are available on the Program website at <http://www.medicaidmentalhealth.org/>. Financial disclosures are available upon request.

ORGANIZATION

The **2018-2019 Florida Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents** cover treatment recommendations for a range of behavioral health symptoms and conditions encountered in the primary care and specialty settings, including attention deficit hyperactivity disorder (ADHD), severe or chronic impulsive aggression, anxiety disorders, bipolar disorder, disruptive mood dysregulation disorder (DMDD), major depressive disorder, insomnia, obsessive-compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and schizophrenia. This year, the guidelines include updates in the Principles of Practice, with a focus on recommendations for deprescribing psychotherapeutic medications when clinically indicated.

The guidelines are organized by levels of treatment recommendations, beginning with Level 0, which involves a thorough clinical assessment. Subsequent levels (Levels 1, 2, 3, etc.) are based on the strength of the scientific evidence and expert consensus regarding a particular medication or treatment option. In addition to the current evidence, the expert panel considers both safety and efficacy when assigning a treatment option to a particular level. Therefore, Level 1 has the strongest evidence and safety profile compared to subsequent levels.

After a thorough assessment, clinicians are encouraged to begin treatment at Level 1. In some cases (e.g., severe symptoms), clinicians may choose to initiate treatment at a different level based on clinical judgement in conjunction with best evidence and guideline recommendations. Any decision regarding treatment should take into consideration the best evidence, practice recommendations, benefit-to-risk ratio, current symptoms, and level of impairment.

Use of these guidelines in whole or in part is entirely the responsibility of the clinician. The authors and panel members bear no responsibility for treatment decisions and outcomes based on the use of these guidelines.

Principles of Practice Regarding the Use of Psychotherapeutic Medications in Children under Age 6

Level 0

Conduct comprehensive multi-informant, multi-modal, multi-disciplinary assessment for those with a positive screen. Rule out medical, social, and cognitive causes of behavioral symptoms.

Use validated measures to assess and track psychiatric symptoms and impairment in young children.

Recommended measures of early childhood symptoms include:

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

Links to measures listed above are available at: <http://medicaidmentalhealth.org/>.



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.
- ◆ If relevant, an assessment of school functioning including academic, behavioral, and social aspects.
- ◆ An assessment of family psychiatric history which includes past and current history of parental psychiatric illnesses, substance abuse and treatment history of parents, parent figures (e.g., step-parent), 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 any history of abuse (physical, sexual) or neglect, traumatic life events, domestic violence, economic instability, etc.

Notes:

- Effort should be made to communicate between primary care providers, psychiatrists, caseworkers, and other team members to ensure integrated care.
- Prior to initiating any intervention (e.g., psychosocial, medication), assess and document the risks/benefits of treatment. Education of children should be age-appropriate and targeted to the condition.
- Children and parents/legal guardians should be educated about the risks and benefits of treatment, including review of boxed warnings.
- Written informed consent should be obtained from the parents/legal guardian (i.e., the individual legally able to consent to medical interventions) and documented in the chart.

Principles of Practice Regarding the Use of Psychotherapeutic Medications in Children under Age 6 (continued)

	<p>Level 1</p> <p>Start with evidence-based psychosocial treatment (e.g., parent training). Parental involvement is essential with involvement by other caregivers or school-based interventions as needed. Provide a comprehensive treatment plan to treat target symptoms and monitor treatment progress.</p> <ul style="list-style-type: none">◆ Monitor response to treatment using reliable and valid measures of changes in the target symptoms.◆ In mild cases, attempt a course of at least 12 weeks of psychosocial interventions before considering medication. Consider a trauma-informed treatment approach as appropriate.◆ In moderate to severe cases, a higher level of intervention may be appropriate.◆ Treatment should be individualized.
	<p>Level 2</p> <p>If medications are being considered, first reassess the diagnosis and diagnostic formulation.</p> <p>Weigh the risks and benefits of initiating treatment with psychotherapeutic medications. The long-term effects of antipsychotic medication use in children is not well studied.</p> <p><i>If a decision is made to initiate medication:</i></p> <ul style="list-style-type: none">◆ Initiate with monotherapy. Start low, go slow. Take into consideration the pharmacokinetics of the medication (i.e., absorption, distribution, metabolism, excretion).◆ Except in rare cases, use monotherapy.◆ Continue psychosocial treatment during treatment with medication.◆ If possible, monitor effectiveness of interventions with pertinent rating scales.◆ Use the lowest effective medication dose.◆ Monitor for adverse effects of medications.◆ After 6 to 9 months of stabilization, plan down titration trial (i.e., taper or discontinuation trial) to determine whether or not the medication is still needed and effective.◆ 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. <p><i>Additional Considerations:</i></p> <ul style="list-style-type: none">◆ Once medications are initiated, continue routine monitoring for medication benefits and side-effects.◆ If medication is no longer beneficial, consider deprescribing (refer to page 14 for deprescribing recommendations). Monitor for symptom exacerbation.

Dosing Recommendations Regarding the Use of Antipsychotic Medication in Children under Age 6

The use of antipsychotic medications in preschoolers (children under 6 years of age) is generally “off-label”, not recommended and should only be considered under the most extraordinary circumstances. Disruptive aggression in autism is one such circumstance.

Adequately powered studies have not been conducted in children under age 6.

Before considering pharmacological treatment for children under age 6, the following guidelines are strongly recommended:

1. Patient has developmentally appropriate, comprehensive psychiatric assessment with diagnoses, impairments, treatment target and treatment plans clearly identified and documented.
2. Patient assessment must include evaluation of parental psychopathology and treatment needs, as well as family functioning.
3. Patient’s psychosocial treatments should precede the use of psychotherapeutic medications and should continue if medications are prescribed.

Antipsychotic Dosing Information for Children under Age 6 (Should only be used under rare circumstances).

The dosing information is based on expert opinion and therefore is Level C evidence.

Table 1.

Antipsychotic Dosing in Children Under Age 6	
Drug Name	Dose
Risperidone	Starting dose: 0.125 mg/day Maximum dose: 1.5 mg/day
Aripiprazole	Starting dose: 1 mg/day Maximum dose: 7.5 mg/day

Principles of Practice Regarding the Use of Psychotherapeutic Medications in Children Ages 6 to 17 Years Old

Level 0

Conduct comprehensive multi-informant, multi-modal, multi-disciplinary assessment for those with a positive screen. Rule out medical, social, and cognitive causes of behavioral symptoms.

Use validated measures to assess and track psychiatric symptoms and impairment in young children.

Recommended measures of symptoms in children and adolescents include:

- ◆ Ages 4–11 years: Strengths and Difficulties Questionnaire (SDQ)
- ◆ Ages 3–21 years: The Child/Adolescent Psychiatry Screen (CAPS)
- ◆ Ages 4–11 years: Home Situations Questionnaire (HSQ)

Links to measures listed above are available at: <http://medicaidmentalhealth.org/>.



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 school functioning including academic, behavioral, and social aspects.
- ◆ An assessment of family psychiatric history which includes past and current history of parental psychiatric illnesses, substance abuse and treatment history of parents, parent figures (e.g., step-parent), 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) or neglect, traumatic life events, domestic violence, economic instability, etc.

Notes:

- Effort should be made to communicate between primary care providers, psychiatrists, caseworkers, and other team members to ensure integrated care.
- Prior to initiating any intervention (e.g., psychosocial, medication), assess the risks/benefits of treatment. Education of children should be age-appropriate and targeted to the condition.
- Children/adolescents and parents/legal guardians should be educated about the risks and benefits of treatment, including review of boxed warnings.
- Written informed consent should be obtained from the parents/legal guardian (i.e., the individual legally able to consent to medical interventions) and documented in the chart.

Principles of Practice Regarding the Use of Psychotherapeutic Medications in Children Ages 6 to 17 Years Old (*continued*)

	<p>Level 1</p> <p>Start with psychosocial treatment. Parental involvement is essential, with involvement of other caregivers or school-based interventions as needed.</p> <ul style="list-style-type: none">◆ Provide a comprehensive treatment plan to treat target symptoms and monitor treatment progress. Monitor response to treatment using reliable and valid measures of changes in the target symptoms.◆ In mild cases, attempt a course of at least 12 weeks of psychosocial interventions before considering medication.◆ In moderate to severe cases, a higher level of intervention may be appropriate as the initial step.
	<p>Level 2</p> <p>If medications are being considered, first reassess the diagnosis and diagnostic formulation. Weigh the risks and benefits of initiating treatment with psychotherapeutic medications.</p> <p><i>If a decision is made to initiate medication:</i></p> <ul style="list-style-type: none">◆ Initiate with monotherapy. Start low, go slow.◆ Except in rare cases, use monotherapy.◆ Continue psychosocial treatment during treatment with medication.◆ Monitor for suicidality.◆ Monitor for adverse effects of medications.◆ The use of antipsychotics should be restricted to the diagnoses of schizophrenia (rare in children), mania/bipolar disorder, psychotic depression, drug induced psychosis, Tourette's syndrome and tic disorders, and in some cases, severe aggression as a target symptom.◆ On rare occasions, antipsychotics may be used in obsessive compulsive disorder (OCD) after extensive cognitive behavioral therapy (CBT) or failure of two adequate selective serotonin reuptake inhibitor (SSRI) trials.◆ Antipsychotics should not be used primarily to target ADHD symptoms or as sedatives in children.◆ There may be instances where antipsychotics are used for parasuicidal and severe self-injurious behaviors. <p><i>Additional Considerations:</i></p> <ul style="list-style-type: none">◆ Once medications are initiated, continue routine monitoring for medication benefits and side-effects. For children on long-term, continuous antipsychotic use, at minimum, yearly re-assessment of medication benefits and side-effects is recommended.◆ If medication is no longer beneficial, consider deprescribing (refer to page 14 for deprescribing recommendations). Monitor for symptom exacerbation.◆ Consider a trauma-informed treatment approach as appropriate.

General Procedures for Monitoring Side Effects of Antipsychotic Medication in Children and Adolescents

Conduct side effect and metabolic assessments and laboratory tests that are clinically relevant, comprehensive, and based on established guidelines.

Provide accessible information to parents and families about identifying and managing side effects, including lifestyle and nutritional changes, monitoring labs, etc.

EXTRAPYRAMIDAL SIDE EFFECTS

- Monitor for extrapyramidal side effects (EPS) associated with antipsychotic use. Scales for assessing for EPS:
 - ◆ The Abnormal Involuntary Movement Scale (AIMS)
 - ◆ The Extrapyramidal Symptom Rating Scale (ESRS)
 - ◆ Dyskinesia Identification System: Condensed User Scale (DISCUS)
- Links to measures listed above are available at <http://medicaidmentalhealth.org/>.

METABOLIC SYNDROME, PREDIABETES, AND TYPE 2 DIABETES MELLITUS

- Monitor for metabolic syndrome, prediabetes, and Type 2 Diabetes Mellitus (DM) when prescribing atypical antipsychotics.
- Metabolic Syndrome Diagnosis:
 - Children ≤10 years**
 - ◆ In children ≤10 years old, metabolic syndrome cannot be diagnosed because cut-offs for blood pressure, fasting blood sugar, triglycerides, and fasting lipids are not well defined.
 - ◆ Child is at risk for metabolic syndrome if child has central obesity (waist circumference is >90th percentile).
 - Children/Adolescents >10 years**
 - ◆ Metabolic syndrome is present if the child has central obesity [waist circumference is >90th percentile for age (or adult cut-off if lower)] plus *any two* of the following four risk factors:
 - ◇ Blood pressure (BP): ≥130 millimeters of mercury (mmHg) systolic, ≥85 mmHg diastolic, or treatment of previously diagnosed hypertension
 - ◇ Fasting blood glucose >100 milligrams per deciliter (mg/dL)
 - ◇ Fasting triglycerides ≥150 mg/dL
 - ◇ HDL <40 mg/dL
- Prediabetes Diagnosis:
 - ◆ Fasting glucose from 100-125 mg/dL
 - OR
 - ◆ Hemoglobin A1c between 5.7% and 6.4%

General Procedures for Monitoring Side Effects of Antipsychotic Medication in Children and Adolescents *(continued)*

- Monitor for prediabetes and Type 2 Diabetes Mellitus (DM) in all children <18 years who are overweight and have *one or more* of the following risk factors (refer to Box 1 below):

Box 1.

American Diabetes Association Risk-Based Screening for Type 2 Diabetes or Prediabetes in Asymptomatic Children and Adolescents (<18 years) in a Clinical Setting

Criteria:

- ◆ Overweight (BMI >85th percentile for age and sex, weight for height >85th percentile, or weight >120% of ideal for height [Level A evidence])

Plus one or more additional factors based on the strength of their association with diabetes as indicated by evidence grades:

- ◆ Maternal history of diabetes or gestational diabetes during the child's gestation [Level A evidence]
- ◆ Family History of type 2 diabetes in first- or second-degree relative [Level A evidence]
- ◆ Race/ethnicity (Native American, African American, Latino, Asian American, Pacific Islander) [Level A evidence]
- ◆ Signs of insulin resistance or conditions associated with insulin resistance (acanthosis nigricans, hypertension, dyslipidemia, polycystic ovary syndrome, or small-for-gestational-age birth weight) [Level B evidence]

Notes:

- Overweight is defined as BMI >85th percentile for age and sex, weight for height >85th percentile or weight >120% of ideal for height.
- The American Diabetic Association recommends testing hemoglobin A1c every 3 years beginning at age 10 or onset of puberty in children who are overweight and have two or more risk factors for metabolic syndrome or Type 2 DM.
- For individuals receiving antipsychotic medications, the American Diabetic Association and American Psychiatric Association recommend metabolic monitoring as noted in Table 3 below.
- If metabolic abnormalities are present, refer to the primary care physician for further evaluation/treatment and integrate care.

General Procedures for Monitoring Side Effects of Antipsychotic Medication in Children and Adolescents *(continued)*

Table 2.

American Diabetes Association/American Psychiatric Association Guidelines for Metabolic Monitoring in Recipients of Antipsychotic Medications							
Parameter	Monitoring Frequency						
	Baseline	Week 4	Week 8	Week 12	Quarterly	Annually	Every 5 years
Medical history*	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting glucose or hemoglobin A1c	X			X		X	
Fasting lipids (HDL, LDL, triglycerides, total cholesterol)	X			X			X

*Notes: Medical history includes personal and family history of obesity, diabetes, hypertension, and cardiovascular disease. More frequent assessments may be warranted based on clinical status.

General Procedures for Monitoring Side Effects of Antipsychotic Medication in Children and Adolescents (continued)

Box 2.

American Diabetes Association Criteria for Diagnosis of Diabetes

- ◆ Fasting plasma glucose (FPG) ≥ 126 mg/dL (7.0 mmol/L). Fasting is defined as no caloric intake for at least 8 hours.

OR

- ◆ 2 hour plasma glucose (PG) ≥ 200 mg/dL (11.1 mmol/L) during oral glucose tolerance test (OGTT). The test should be performed as described by the World Health Organization (WHO), using a glucose load containing the equivalent of 75-grams anhydrous glucose dissolved in water.

OR

- ◆ Hemoglobin A1C $\geq 6.5\%$ (48 mmol/mol).

Note: The test should be performed in a laboratory using a method that is National Glycohemoglobin Standardization Program (NGSP) certified and standardized to the Diabetes Control and Complication Trial (DCCT) assay.

OR

- ◆ In a patient with classic symptoms of hyperglycemia or hyperglycemic crisis, a random plasma glucose ≥ 200 mg/dL (11.1 mmol/L).

Notes: In the absence of unequivocal hyperglycemia, results should be confirmed by repeat testing. The epidemiological studies that form the basis for recommending A1c to diagnose diabetes includes only adult populations.

PROLACTIN MONITORING

- There is a relationship between prolactin elevation and atypical antipsychotics. Although evidence does not support need for routine monitoring of prolactin levels in asymptomatic youths, surveillance for signs/symptoms of prolactin elevation (e.g., gynecomastia, galactorrhea, irregular menses) is recommended.
- When symptoms of elevated prolactin develop, consider decreasing the dose of the atypical antipsychotic, switching to a different atypical antipsychotic, or discontinuing medication.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Deprescribing Recommendations

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WHAT IS DEPRESCRIBING?

Deprescribing is a structured approach to identifying and discontinuing medications when existing or potential harms outweigh existing or potential benefits. This is not synonymous with medication cessation; rather, the goal is to use the minimum effective dose and lowest number of medications necessary to manage symptoms and maintain functioning. The approach involves periodic and systematic reassessment of the risks and benefits of medication use, and these principles are in line with American Academy of Child and Adolescent Psychiatry's (AACAP's) recommendations for effective medication management, which include careful identification of target symptoms at baseline, monitoring response to treatment, and screening for adverse effects.

Children and adolescents are generally at higher risk of medication side effects than adults. Deprescribing should be applied systematically throughout treatment, and increases safety not only by decreasing current side effects, but also reducing exposure to future potential adverse effects, such as the risk of developing diabetes associated with atypical antipsychotic use. Research suggests other potential outcomes of deprescribing include: reducing adverse drug reactions, improving rates of medication adherence, and reducing financial costs.

DEPRESCRIBING RECOMMENDATIONS:

Start with a comprehensive psychiatric assessment:

- ◆ Document current symptoms, level of impairment, differential diagnosis and past medication trials. Consider using standardized rating scales to aid with diagnosis and assessing symptom severity.
- ◆ Compile a comprehensive list of current medications, including over-the-counter, supplements, and vitamins. Determine the indication or target symptoms for each.
- ◆ Whenever possible, retrieve and review records of past psychiatric treatment or testing to best understand the rationale for current regimen.
- ◆ Assess effectiveness of medications for reasons started, using available records, current symptoms and functioning, youth's subjective experience, parents' observations, teacher observation when appropriate, and other information sources as indicated.
- ◆ Consider risk of overall medication induced harm, keeping in mind that polypharmacy increases risk of side effects beyond additive effects from each medication.
- ◆ Review empirical support for maintenance treatment, in the context of expected natural course of the illness.
- ◆ Develop a comprehensive treatment plan, including evidence-based psychosocial interventions for any current symptoms impairing functioning, and school consultation/ intervention for symptoms impairing academic functioning.

Identify medications that could be ceased or reduced. Start with medications:

1. Without a clear indication
2. If after assessment, it remains unclear what symptoms the medication was targeting

Deprescribing Recommendations (*continued*)

3. With the least evidence of efficacy for the symptoms or diagnoses the medication is prescribed to treat
4. That were ineffective for the symptoms targeted, or if the symptoms originally targeted have resolved
5. That are prescribed outside of guidelines recommending their use
6. With insufficient benefit to justify harms
7. With the greatest risk of future adverse effects
8. That are part of a prescribing cascade, when side effects of drugs were misdiagnosed and treated as symptoms of another disorder; or when the drug was prescribed to counter the adverse effects of another drug

Develop a plan for medication reduction and cessation. Any recommendation to taper or discontinue a psychotropic medication should be done while engaging in developmentally appropriate collaborative decision-making with the youth and guardian.

1. Inform the youth and family about possible discontinuation effects, including both risks and benefits.
2. Consider the level of risk if symptoms were to relapse, including risk of hospitalization and safety risk from suicidal or homicidal behavior.
3. Develop a crisis or safety plan that identifies coping skills, sources of support, and how to access urgent/emergency services.
4. Avoid times of crisis; choose a time anticipated to have low incidence of significant stressors.
5. Make one change at a time. Allow adequate time for adjustment to dose reduction, which is related medication half-life.
6. Use symptom rating scales to monitor effects over time.
7. Implement indicated psychosocial services as identified in treatment planning step above.
8. Determine the frequency of visits and monitor for withdrawal symptoms or potential relapse.
9. Remain available to the family once medication has ceased to continue to monitor for relapse and resolution of any identified side effects.

If symptoms recur:

- ◆ Wait and observe; exacerbation may be related to natural fluctuations in disease course, or self-limited symptoms related to medication withdrawal.
- ◆ Consider external stressors that may have contributed to exacerbation.
- ◆ Increase therapeutic support or implement psychosocial interventions not yet in place.
- ◆ Reinforce alternative coping strategies for addressing symptoms.
- ◆ Review differential diagnosis and consider updating diagnosis and treatment plan if indicated.
- ◆ Resume medication at the last effective dose. After stabilization, consider whether another trial of discontinuation is warranted.
- ◆ Consider alternative medication, particularly one with greater evidence of efficacy or fewer side effects.

Attention Deficit Hyperactivity Disorder (ADHD) in Children under Age 6

Level 0

Conduct comprehensive assessment and provide psychoeducation about ADHD, including clearly defined treatment expectations. Consider co-morbid developmental language disorder, Specific Learning Disorder or Autism Spectrum Disorder (ASD).

Facilitate family engagement, psychoeducation about ADHD (evidence-based behavioral interventions, educational interventions, and medication treatments), and treatment preference assessment. Treatment response should be monitored using rating scales and appropriate health (vital signs, height, weight) and safety assessments. Refer to *General Principles of Practice Regarding the Use of Psychotropic Medications in Children under Age 6* on page 5.



Level 1

Provide parent management/skills training or other behavioral intervention at home and/or school for a minimum of 12 weeks.



Level 2

Initiate monotherapy with immediate-release methylphenidate formulation.



Level 3

If methylphenidate is unsuccessful, could consider monotherapy with atomoxetine (caution: child must be able to swallow medication whole).



Level 4

Consider immediate-release amphetamine formulations which have FDA indication for ages 3 to 5 years old but limited clinical trial evidence base. May also consider alpha-2 agonists, but no published data are available.

- ◆ After 6 months of sustained improvement on any effective medication treatment, taper in order to determine the lowest effective dose and possibility of discontinuation.



Level 5

If immediate-release monotherapy has failed, may consider extended-release stimulant medication within special dosing guidelines for preschoolers.

Not Recommended:

- ◆ Antipsychotic medication to treat core symptoms of ADHD.
- ◆ Concurrent use of two or more alpha-2 agonists.

Attention Deficit Hyperactivity Disorder (ADHD) in Children under Age 6 (continued)

Table 3.

ADHD Medication Treatment for Children under Age 6	
Drug Name	Starting Dose Recommendation
Methylphenidate and Amphetamine preparations	
Short-acting	
Methylphenidate¹: Immediate Release: Ritalin®, Methylin®, Methylin® Chewable Tablets, Methylin® Oral Solution	1.25 mg tid – titrate as needed to doses not exceeding 1 mg/kg/day. <i>Recommendations extrapolated from the Preschool ADHD Treatment Study (PATS).</i>
Amphetamine²: Immediate Release: Mixed amphetamine salts (Adderall®), d-amphetamine (Zenzedi®, ProCentra® Oral Solution); d- & l-amphetamine (Evekeo®)	2.5 mg/day – titrate as needed to doses not exceeding 0.5 mg/kg/day. <i>Amphetamine target dose is generally one- half to two-thirds of methylphenidate dose.</i>
Selective norepinephrine inhibitor	
Atomoxetine³ (Strattera®)	10 mg/day – titrate as needed to doses not to exceed 1.4 mg/kg/day. <i>Recommendations extrapolated from the Kratochvil et al. 2011 study.</i>
Alpha-2 Agonists⁴	
Alpha-2 Agonists⁴: Clonidine (Catapres®, KAPVAY®) Guanfacine (Tenex®, Intuniv®)	Starting dose not to exceed: 0.05 mg/day (<i>clonidine</i>) 0.5 mg/day (<i>guanfacine</i>) Monitor carefully for excessive sedation, increased irritability. <i>Recommendations based on expert opinion.</i>

Notes:

¹ No FDA indication for children younger than 6 years old; based on Preschool ADHD Treatment Study results (Greenhill et al., 2006).

² FDA indication for ADHD treatment of children 3-5 years old, but no clinical trial study results available.

³ No FDA indication for children younger than 6 years old; based on Kratochvil et al., 2011.

⁴ No FDA indication for ADHD except guanfacine extended-release (Intuniv®) and clonidine extended-release (KAPVAY®) in children 6 years and older; no clinical trial study results available for alpha-2 agonist use for ADHD in children below age 6 years old.

There is no new data on extended-release stimulants in preschoolers, but the 2007 American Academy of Child and Adolescent Psychiatry guideline algorithm included extended-release formulations to address compliance concerns (Pliszka et al., 2007).

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old

Level 0

Comprehensive assessment including a detailed developmental, educational, and symptom history. Recommended rating scales:

- ◆ ADHD Rating Scale-IV
- ◆ Vanderbilt ADHD Diagnostic Parent and Teacher Rating Scales

Links to rating scales available at <http://medicaidmentalhealth.org/>.

Facilitate family engagement, psychoeducation about ADHD (evidence-based behavior and medication treatments, and educational interventions), and assess treatment preference.

Ensure that treatment response is monitored using rating scales and appropriate health (vital signs, height and weight) and safety assessments.



Level 1

- ◆ Psychostimulant monotherapy (methylphenidate class or amphetamine class, either immediate-release or extended-release). If first choice is ineffective, try monotherapy with another stimulant (Refer to Tables 4 and 5 of ADHD medications on pages 19–22). If supplementation of extended-release with immediate-release psychostimulant required for sufficient coverage, stay within same drug class.
- OR
- ◆ Extended-release alpha-2 agonist monotherapy.



Level 2

- ◆ Combination of extended-release alpha-2 agonist with psychostimulant.
- OR
- ◆ Atomoxetine monotherapy.



Level 3

Immediate-release alpha-2 agonist (as monotherapy or combination with other ADHD medication classes).



Level 4

Diagnostic reconsideration if none of the above agents result in satisfactory treatment. Consider bupropion or tricyclic antidepressant. Despite limited evidence, these medications may be considered. Desipramine is not recommended due to safety concerns.

Not Recommended:

- ◆ Antipsychotic medication to treat core symptoms of ADHD.
- ◆ Concurrent use of two or more alpha-2 agonists.
- ◆ Concurrent use of two different stimulant classes.

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 4.

FDA Approved ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old				
Generic Class/ Brand Name	Typical Starting Dose	FDA Max Dose/Day	Off-Label Max Dose/Day	Comments
Methylphenidate preparations				
Immediate-Release				Immediate-release stimulants are often used as initial treatment in children (<16 kg), but have disadvantage of b.i.d. – t.i.d. dosing to control symptoms throughout the day.
Focalin® (dexmethylphenidate hcl tablet)	2.5 mg bid	20 mg	50 mg	
Ritalin® (methylphenidate hcl tablet)	5 mg bid	60 mg	>50 kg: 100 mg	
Methylin® Solution (methylphenidate hcl oral solution)	5 mg bid	60 mg	>50 kg: 100 mg	
Methylphenidate Chewable (methylphenidate hcl chewable tablet)	5 mg bid	60 mg	>50 kg: 100 mg	
Intermediate-Release				Longer acting stimulants offer greater convenience, confidentiality, and compliance with single daily dosing but may have greater problematic effects on evening appetite and sleep.
Metadate ER® (methylphenidate hcl extended-release tablets)	10 mg qam	60 mg	>50 kg: 100 mg	
Metadate CD® (methylphenidate hcl extended-release capsule)	10 mg qam	60 mg	>50 kg: 100 mg	
Ritalin LA® (methylphenidate hcl extended-release tablet)	20 mg qam	60 mg	>50 kg: 100 mg	
<i>Notes:</i>				
<i>Ritalin LA 60 mg (specific brand and dose) and Ritalin SR were discontinued for reasons other than safety and effectiveness. Ritalin LA brand drug is still available in 10 mg, 20 mg, 30 mg, and 40 mg capsules (i.e., doses other than 60 mg). The generic methylphenidate extended-release capsule is available in all doses, including 60 mg.</i>				

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 4 (continued).

FDA Approved ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old				
Generic Class/ Brand Name	Typical Starting Dose	FDA Max Dose/Day	Off-Label Max Dose/Day	Comments
Extended-Release				
Aptensio XR® (methylphenidate hcl extended-release capsule)	Begin with 10 mg qam then titrate by 10 mg at weekly intervals	60 mg	>50 kg: 100 mg	<p>Aptensio XR®, Metadate CD®, Ritalin LA® and Focalin XR® capsules may be opened and sprinkled on soft food for immediate consumption. Beads should not be crushed or chewed.</p> <p>Concerta® should not be crushed, chewed, or broken. Swallow whole with liquids. Non-absorbable tablet shell does not dissolve and may be seen in stool. This is normal.</p> <p>Qillivant XR® is an extended-release once-daily suspension.</p> <p>QuilliChew ER® can be broken in half.</p>
Cotempla XR-ODT® (methylphenidate tablet, orally disintegrating)	Begin with 17.3 mg qam then titrate up by 8.6 mg to 17.3 mg weekly	51.8 mg	Not yet known	
Concerta® (methylphenidate extended-release tablet)	18 mg qam	72 mg	>50 kg: 108 mg	
Daytrana® patch (methylphenidate transdermal system)	Begin with 10 mg patch daily, then titrate up by patch strength 5 mg qam	30 mg	Not yet known	
Focalin XR® (dexmethylphenidate hcl extended-release capsule)	5 mg qam	30 mg	50 mg	
Quillivant XR® (methylphenidate hcl extended-release oral suspension)	Begin with 20 mg qam, then titrate up by 10-20 mg at weekly intervals	60 mg	>50 kg: 100 mg	
QuilliChew ER® (methylphenidate hcl extended-release chewable tablet)	Begin with 20 mg qam then titrate in increments of 10 mg, 15 mg or 20 mg at weekly intervals	60 mg	>50 kg: 100 mg	

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 5.

FDA Approved ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old				
Generic Class/ Brand Name	Typical Starting Dose	FDA Max Dose/Day	Off-Label Max Dose/Day	Comments
Amphetamine preparations				
Immediate-Release				
Adderall® (amphetamine mixed salts tablet)	5 mg daily – bid	40 mg	>50 kg: 60 mg	
Procentra Oral Solution® (d-amphetamine oral solution)	5 mg daily – bid	40 mg	>50 kg: 60 mg	
Evekeo® (d- and l- amphetamine tablet)	5 mg daily – bid	40 mg	>50 kg: 60 mg	
Zenzedi® (d-amphetamine tablet)	5 mg daily – bid	40 mg	>50 kg: 60 mg	Immediate-release stimulants are often used as initial treatment in children (<16 kg) but have disadvantage of b.i.d. – t.i.d. dosing to control symptoms throughout the day. Note that Adderall®, Procentra Oral Solution®, Evekeo®, and Zenzedi® have the same dosing recommendations.

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 5 (continued).

FDA Approved ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old				
Generic Class/ Brand Name	Typical Starting Dose	FDA Max Dose/Day	Off-Label Max Dose/Day	Comments
Extended-Release				<p>Longer acting stimulants offer greater convenience, confidentiality, and compliance with single daily dosing but may have greater problematic effects on evening appetite and sleep.</p> <p>Adderall XR® capsule may be opened and sprinkled on soft foods.</p> <p>Vyvanse® capsule can be opened and mixed with yogurt, water or orange juice. Vyvanse® Chewables must be chewed thoroughly before swallowing. Do not divide single doses.</p> <p>For Dyanavel XR® do not substitute for other amphetamine products on mg-per-mg basis.</p> <p>For Adzenys®, do not substitute for other amphetamine products on mg-per-mg basis. For children and adolescents on Adderall XR®, specific starting doses corresponding to Adderall XR® doses are recommended, ranging from 3.1 mg of Adzenys® (for those on 5 mg of Adderall XR®) to 18.8 mg of Adzenys® (for those on 30 mg Adderall XR®).</p>
Dexedrine Spansule® (dextroamphetamine sulfate extended-release capsule)	5–10 mg daily to twice per day	40 mg	Not yet known	
Adderall XR® (amphetamine extended-release mixed salts capsule)	10 mg daily	6–12 years: 30 mg 13–17 years: 20 mg	>50 kg: 60 mg	
Vyvanse® (lisdexamfetamine capsule)	20–30 mg daily	70 mg	Not yet known	
Vyvanse® (lisdexamfetamine chewables)	20–30 mg daily	70 mg	Not yet known	
Dyanavel XR® 2.5mg/mL (amphetamine extended-release oral suspension)	2.5 to 5 mg daily	20 mg	Not yet known	
Adzenys ER® (d- and l-amphetamine oral suspension, extended-release)	6.3 mg qam unless switched from Adderall XR (Refer to conversion schedule)	6–12 years: 18.8 mg 13–17 years: 12.5 mg	Not yet known	
Adzenys XR-ODT® (amphetamine extended-release orally disintegrating tablet)	6.3 mg qam unless switched from Adderall XR (Refer to conversion schedule)	6–12 years: 18.8 mg 13–17 years: 12.5 mg	Not yet known	

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 6.

FDA Approved ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old				
Generic Class/ Brand Name	Typical Starting Dose	FDA Max Dose/Day	Off-Label Max Dose/Day	Comments
Selective norepinephrine reuptake inhibitor				
Strattera® (atomoxetine)	< 70 kg: 0.5 mg/kg/day for 4 days; then 1 mg/kg/day for 4 days; then 1.2 mg/kg/day	Lesser of 1.4 mg/kg or 100 mg	Lesser of 1.8 mg/kg or 100 mg	Not a Schedule II medication. Consider if active substance abuse or severe side effects of stimulants (mood lability, tics). Give qam or divided doses b.i.d. (for effects on late evening behavior). Do not open capsule; must be swallowed whole. Monitor closely for suicidal thinking and behavior, clinical worsening, or unusual changes in behavior.
Alpha- adrenergic agonists				
Intuniv® (guanfacine ER)	1 mg daily then titrate up by 1 mg increments once per week	Lesser of 0.12 mg/kg or 4 mg daily (6-12 years) 7 mg daily (13-17 years)	Lesser of 0.17 mg/kg or 4 mg daily (6-12 years) 7 mg daily (13-17 years)	Not a Schedule II medication. Sedation, somnolence, and fatigue are common and tend to decline over time. Consider baseline electrocardiogram (EKG) before starting. Tablets should not be crushed, chewed, or broken before swallowing because this will increase the rate of release.
KAPVAY® (clonidine ER)	0.1 mg/day at bedtime	0.4 mg/day in divided doses of 0.2 mg bid	0.4 mg/day	Do not administer with high fat meals due to increased exposure. May not see effects for 4-6 weeks. Review personal and family cardiovascular history. Do not abruptly discontinue. Taper the daily dose of Intuniv by no more than 1 mg, and that of Kapvay® by no more than 0.1 mg every 3 to 7 days to avoid rebound hypertension.

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 7.

ADHD Medications NOT FDA APPROVED in Children and Adolescents Ages 6 to 17 Years Old			
Generic Class/ Brand Name	Typical Starting Dose	Max Dose/Day	Comments
Alpha- adrenergic agonists			
Catapres® (clonidine)	<p><45 kg: 0.05 mg nightly; titrate in 0.05 mg increments two times per day, three times per day, or four times per day.</p> <p>>45 kg: 0.1 mg nightly; titrate in 1 mg increments two times per day, three times per day, or four times per day.</p>	<p>27–40.5 kg: 0.2 mg</p> <p>40.5–45 kg: 0.3 mg</p> <p>>45 kg: 0.4 mg</p>	<p>The following applies to both alpha-2 adrenergic agonists:</p> <ul style="list-style-type: none"> - May be used alone or as adjuvant to another medication class for ADHD. - Do not combine different alpha-2 adrenergic agents with each other - Effective for inattention, impulsivity and hyperactivity; modulating mood level; tics worsening from stimulants; sleep disturbances. <p>Taper the daily dose of clonidine by no more than 0.1 mg every 3 to 7 days to avoid rebound hypertension.</p>
Tenex® (guanfacine)	<p>< 45 kg: 0.5 mg nightly; titrate in 0.5 mg increments two times per day, three times per day, or four times per day.</p> <p>>45 kg: 1 mg nightly; titrate in 1 mg increments. May dose increments two times per day, three times per day, or four times per day.</p>	<p>27–40.5 kg: 2 mg</p> <p>40.5.–45 kg: 3 mg</p> <p>>45 kg: 4 mg</p>	<p>May not see effects for 4–6 weeks. Review personal and family cardiovascular history.</p> <p>Consider pre-treatment EKG.</p> <p>Taper the daily dose of guanfacine by no more than 1 mg every 3 to 7 days to avoid rebound hypertension.</p>

Attention Deficit Hyperactivity Disorder (ADHD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 7 (continued).

ADHD Medications NOT FDA APPROVED in Children and Adolescents Ages 6 to 17 Years Old			
Generic Class/ Brand Name	Typical Starting Dose	Max Dose/Day	Comments
Antidepressants			
Wellbutrin [†] (bupropion)	Lesser of 3 mg/kg/day or 150 mg/day (dosed as 75 mg bid)	Lesser of 6 mg/kg or 300 mg/day. Dose should not exceed 150 mg per dose.	Lowers seizure threshold; contraindicated if current seizure disorder, anorexia nervosa or bulimia nervosa. Usually given in divided doses, b.i.d. or t.i.d. for children and adolescents, for both safety and efficacy.
Wellbutrin SR [†] (bupropion SR)	Same as above	150 mg per dose or 400 mg/day	Same as above
Wellbutrin XL [†] (bupropion XL)	Not recommended	Not recommended	Not recommended
Tofranil [®] (imipramine)	1 mg/kg/day	Lesser of 4 mg/kg or 200 mg	Obtain baseline EKG before starting imipramine.
Pamelor [®] Aventil [®] (nortriptyline)	0.5 mg/kg/day	Lesser of 2 mg/kg or 100 mg	Obtain baseline EKG before starting nortriptyline.

***Note: Extended-release formulations of clonidine (Kapvay) and guanfacine (Intuniv) are FDA-approved ADHD medications in children and adolescents 6-17 years old, but immediate-release formulations of clonidine (Catapres) and guanfacine (Tenex) are not FDA-approved for ADHD.**

†Bupropion and bupropion SR have more data on off-label use than bupropion XL. Bupropion XL is not recommended in children and adolescents as the safety and efficacy have not been well established in this population.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Attention Deficit Hyperactivity Disorder (ADHD) Resources

SELECTED RESOURCES

■ Books

For Children:

- ◆ Learning To Slow Down and Pay Attention: A Book for Kids About ADHD (Nadeau, Dixon, and Beyl, 2004)
- ◆ The Girls' Guide to AD/HD (Walker, 2004)
- ◆ My Mouth is a Volcano! (Cook, 2006)
- ◆ The Survival Guide for Kids with ADD or ADHD (Taylor, 2006)
- ◆ Mrs. Gorski, I Think I Have the Wiggle Fidgets (Esham, 2008)

For Adolescents and Young Adults:

- ◆ The Girls' Guide to AD/HD (Walker, 2004)
- ◆ Delivered from Distraction: Getting the Most out of Life with Attention Deficit Disorder (Hallowell and Ratey, 2005)

For Parents:

- ◆ Driven to Distraction: Recognizing and Coping with Attention Deficit Disorder from Childhood to Adulthood (Hallowell and Ratey, 1994)
- ◆ ADHD and Teens: A Parenting Guide to Making It Through the Tough Years (Alexander-Roberts, 1995)
- ◆ The ADD and ADHD Answer Book: Professional Answers to 275 of the Top Questions Parents Ask (Ashley, 2005)
- ◆ Smart but Scattered: The Revolutionary "Executive Skills" Approach to Helping Kids Reach Their Potential (Dawson and Guare, 2009)
- ◆ Taking Charge of ADHD: The Complete, Authoritative Guide for Parents, 3rd Edition (Barkley, 2013)
- ◆ Parenting Children with ADHD: 10 Lessons that Medicine Cannot Teach (Monastra, 2014)
- ◆ How to Reach and Teach Children and Teens with ADD/ADHD: Practical Techniques, Strategies, and Interventions, 3rd Edition (Rief, 2016)

For Teachers:

- ◆ Teaching the Tiger: Handbook for individuals involved in the education of students with ADHD, Tourette's, or OCD (Dornburush and Pruitt, 1995)
- ◆ How to Reach and Teach Children and Teens with ADD/ADHD: Practical Techniques, Strategies, and Interventions, (Rief, 2016)

Attention Deficit Hyperactivity Disorder (ADHD) Resources (continued)

■ Websites

- ◆ American Academy of Child and Adolescent Psychiatry – ADHD Resource Page: https://www.aacap.org/aacap/families_and_youth/resource_centers/adhd_resource_center/Home.aspx
- ◆ Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD): <https://chadd.org/>
- ◆ Child Mind Institute – Teacher’s Guide to ADHD in the Classroom: <https://childmind.org/guide/a-teachers-guide-to-adhd-in-the-classroom/>
- ◆ Mental Health America: <http://www.mentalhealthamerica.net/>
- ◆ National Alliance on Mental Illness (NAMI): <https://www.nami.org/>
- ◆ NAMI Florida: <http://www.namiflorida.org/>
- ◆ National Institute of Mental Health: <https://www.nimh.nih.gov/index.shtml>
- ◆ National Institute of Mental Health—ADHD resource page: <https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/index.shtml>

Note: Above resources and website links were updated at the time of publication.





For a full list of references, visit <http://medicaidmentalhealth.org/>.



**Treatment guidelines are available on
our Program website: medicaidmentalhealth.org**

If you would like hard copies of the guidelines, please email sabrinasingh@usf.edu

Aggression (Severe) in Children under Age 6

Level 0	
Comprehensive diagnostic assessments. Refer to <i>Principles of Practice</i> on page 5. Evaluate and treat comorbid conditions (i.e. medical, other psychiatric conditions).	
	<p>Level 1</p> <p>Psychosocial intervention.</p> <ul style="list-style-type: none"> ◆ Evidence-based psychotherapeutic interventions such as Parent Management Training (PMT) or Parent-Child Interaction Therapy (PCIT) is the first-line treatment for 3 to 6 months. ◆ Multimodal intervention such as Multisystemic therapy (MST), used in school age children, may be tried (Rosato et al., 2012). ◆ Behavioral therapy such as token economies, contingency management, and Applied Behavioral Analysis (ABA therapy) may be tried (as useful in aggression in Autism Spectrum population).
	<p>Level 2</p> <p>Initial medication treatment should target the underlying disorder(s) (when available, follow evidence-based guidelines for primary disorder).</p> <ul style="list-style-type: none"> ◆ Always treat primary disorder fully first before addressing aggression with other pharmacologic agents. ◆ Treat comorbid ADHD per guidelines. Refer to page 16. ◆ Treat comorbid Anxiety Disorders per guidelines. Refer to page 34. ◆ Treat comorbid Mood Disorders per guidelines. Refer to page 51 for Major Depressive Disorder.
	<p>Level 3</p> <p>In the absence of co-morbid ADHD and presence of severe impairment, severe aggression, or failure of psychosocial treatment:</p> <ul style="list-style-type: none"> ◆ Monotherapy with methylphenidate formulation, then amphetamine formulation or low dose alpha-2 agonists. ◆ Consider combination therapy of stimulant with alpha-2 agonists.
	<p>Level 4</p> <p>If failure to respond to Level 2 and/or 3, or insufficient response consider:</p> <ul style="list-style-type: none"> ◆ Low dose risperidone, aripiprazole. <ul style="list-style-type: none"> ◇ Discontinuation trial after 6 months of any effective medication treatment.
Not Recommended:	
<ul style="list-style-type: none"> ◆ Use of medication without a trial of concurrent psychosocial treatment. 	

Aggression (Chronic, Impulsive) in Children and Adolescents Ages 6 to 17 Years Old

Level 0

Comprehensive diagnostic assessment. Refer to *Principles of Practice* on page 8. Evaluate and treat comorbid conditions (i.e. medical, other psychiatric conditions).

- ◆ Consider screening tools:
 - ◇ Ages 3 to 21 years old: Child /Adolescent Psychiatry Screen (CAPS)
 - ◇ Ages 4 to 17 years old: Strengths and Difficulties Questionnaire (SDQ) for parents and teachers

Links to screening tools available at <http://medicaidmentalhealth.org/>.

- ◆ Assessing treatment effects and outcomes with standardized measures, such as the Modified Overt Aggression Scale (MOAS) is highly encouraged.
- ◆ When acute aggression is present, conduct a risk assessment and, if necessary, consider referral to a psychiatrist or an emergency department for evaluation.
- ◆ Continuously track and re-assess aggression problems and triggers.
- ◆ Obtain additional collateral information as needed and obtain a relevant medical workup, physical examination, and nutritional status evaluation.
- ◆ Provide psychoeducation for patients and families.
- ◆ Develop an appropriate treatment plan with the patient/family and obtain buy-in.
- ◆ Help the family establish community supports.





Level 1



Engage the child and family in taking an active role in implementing psychosocial strategies and help them to maintain consistency with psychosocial, psychoeducational, and other evidence-based treatments interventions:

- ◆ Parent Management Training (PMT), Parent-Child Interaction Therapy (PCIT), behavioral therapies such as ABA therapy, behavioral modification, and contingency management
- ◆ Multimodal interventions: Multisystemic therapy
- ◆ Cognitive Behavioral Therapy (anger management)
- ◆ Family therapy

Aggression (Chronic, Impulsive) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 2</p> <p>If Level 1 interventions are not successful, re-assess:</p> <p>Initial medication treatment should target the underlying disorder(s) (when available, follow evidence-based guidelines for primary disorder).</p> <ul style="list-style-type: none">◆ Always treat primary disorder fully first before addressing aggression with other pharmacologic agents.◆ Treat comorbid ADHD per guidelines. Refer to page 18◆ Treat comorbid Anxiety Disorders per guidelines. Refer to page 35.◆ Treat comorbid Mood Disorders per guidelines. Refer to page 40 for Bipolar Disorder and page 52 for Major Depressive Disorder◆ Treat comorbid Disruptive Mood Dysregulation Disorder per guidelines. Refer to page 45.◆ Consider monotherapy with methylphenidate formulation, then amphetamine formulation or alpha-2 agonist, then atomoxetine.◆ May want to consider combination therapy of stimulant with an alpha-2 agonist.◆ For affective aggression, if benefits outweigh risks, consider starting with low-dose risperidone or aripiprazole (most robust evidence for use at the time of publication).
	<p>Level 3</p> <p>If Level 2 interventions are not successful, re-assess:</p> <ul style="list-style-type: none">◆ Consider switching to or adding an antipsychotic medication to ongoing psychosocial and/or pharmacological treatments (after an adequate trial), taking into account the latest evidence on efficacy and safety of individual agents.<ul style="list-style-type: none">◇ Risperidone or aripiprazole are recommended at low doses. Titrate to appropriate dose to target symptoms given level of impairment.◆ Use recommended titration schedules and deliver medication trial at adequate dose and duration before changing or adding medication. Refer to Table 8 on page 32. Before changing, make sure that medications have been administered for an appropriate dose and duration and that adequate psychosocial interventions addressing adherence have been implemented. Monitor and manage adverse effects and non-response.

Aggression (Chronic, Impulsive) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 4</p> <p>If failure to respond to Level 3 or insufficient response, switch to a different antipsychotic (either risperidone or aripiprazole).</p>
	<p>Level 5</p> <p>If failure to respond to risperidone or aripiprazole, consider other antipsychotics for which less evidence exists. Refer to Table 8 on page 32.</p> <p>OR</p> <p>Combination of a mood stabilizer with atypical antipsychotic, but not of two antipsychotics (unless during cross-titration or plateau switch).</p> <ul style="list-style-type: none"> ◆ When patient responds only partially to a first-line antipsychotic medication, first reassess the diagnosis, adequacy of behavioral interventions, pharmacotherapy for any identified primary or comorbid disorder, and dose/duration of the medication trial. Then, it may be appropriate to consider adding a mood stabilizer: Most evidence exists for lithium.
<p>Not Recommended:</p> <ul style="list-style-type: none"> ◆ Use of Long Acting Intramuscular (IM) formulations of antipsychotics to treat aggression (lack of evidence in the pediatric population). 	

Aggression (Chronic, Impulsive) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 8.

Treatment of Aggression in Children and Adolescents Ages 6 to 17: Level of Evidence and Dosing Recommendations^o		
Medication	Children (>6 years)	Adolescents (13-17 years)
†Methylphenidate/ Amphetamines	See ADHD guidelines, page 18.	See ADHD guidelines, page 18.
†Clonidine, Guanfacine, Guanfacine ER	See ADHD guidelines, page 18.	See ADHD guidelines, page 18.
†Atomoxetine	Starting dose: See ADHD guidelines, page 18. Max dose: 1.8 mg/kg for children over 8 years old	Starting dose: See ADHD guidelines, page 18. Max dose: 1.8 mg/kg for children over 8 years old
Risperidone <i>*Not recommended first line due to side effect profile</i>	Starting dose: 0.1 to 0.25 mg/day Max dose: 2 mg/day	Starting dose: 0.5 mg/day Max dose: 4 mg/day
Aripiprazole <i>*Not recommended first line due to side effect profile</i>	Starting dose: 1 to 2.5 mg/day Max dose: 10 mg/day	Starting dose: 1 to 2.5 mg/day Max dose: 15 mg/day
Lithium <i>*Not recommended first line due to side effect profile</i>	Blood level: 0.6 mEq/L Max blood level should be 1.2 mEq/L	Blood level: 0.6 mEq/L Max blood level should be 1.2 mEq/L
Haloperidol <i>*Not recommended first line due to side effect profile</i>	Starting dose: 0.25 to 0.5 mg/day Max dose: 4 to 6 mg/day	Starting dose: 0.5 mg/day Max dose: 6 to 10 mg/day
Chlorpromazine <i>*Not recommended first line due to side effect profile</i>	Starting dose: 25 mg/day Max dose: 200 mg/day	Starting dose: 25 to 50 mg/day Max dose: 400 mg/day
Valproate <i>*Use caution in female population due to side effect profile</i>	10-15 mg/kg/day in divided doses Blood level: 80-125 mcg/mL Dose determined by blood level. Max blood level should be 125 mcg/mL	10-15 mg/kg/day in divided doses Blood level: 80-125 mcg/mL Dose determined by blood level. Max blood level should be 125 mcg/mL
Olanzapine <i>*Not recommended first or second line due to metabolic SE and/or in pts with BMI ≥ 85%</i>	Starting dose: 1.25 to 2.5 mg/day Max dose: 15 mg/day	Starting dose: 2.5 to 5.0 mg/day Max dose: 20 mg/day
Quetiapine <i>*Not recommended first line in patients with BMI ≥ 85%</i>	Starting dose: 12.5 mg po twice per day Max dose: 400 mg/day	Starting dose: 25 mg po twice per day Max dose: 600 mg/day
Ziprasidone <i>*Requires cardiac monitoring</i>	Starting dose: 20 mg/day Max dose: 40-60 mg/day	Starting dose: 20 mg/day Max dose: 40-60 mg/day
Paliperidone <i>*Limited data below age 12</i>	Starting dose: 1.5 mg/day Max dose: 6 mg/day	Starting dose: 1.5 to 3 mg/day Max dose: 12 mg/day

Aggression (Chronic, Impulsive) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 8 (continued).

Treatment of Aggression in Children and Adolescents Ages 6 to 17: Level of Evidence and Dosing Recommendations^o		
Medication	Children (>6 years)	Adolescents (13-17 years)
Carbamazepine	Not recommended due to adverse effects.	Not recommended due to adverse effects.
Asenapine	Not recommended under 10 years old. Can be given to children and adolescents 10-17 years old. Starting dose: 2.5 mg sublingual (SL) twice per day Max dose: 20 mg/day	Can be given to children and adolescents 10-17 years old. Starting dose: 2.5 mg SL twice per day Max dose: 20 mg/day
Lurasidone	FDA approved for schizophrenia, ages 13-17 years FDA approved for bipolar I depression, ages 10-17 years Starting dose: 20 mg/day Suggested dosing: 20 to 80 mg/day Max dose (6-9 years old): 100 mg/day	FDA approved for schizophrenia, ages 13-17 years FDA approved for bipolar I depression, ages 10-17 years Suggested dosing: 20 mg/day to 80 mg/day Starting dose: 20 mg/day Max dose: 120 mg/day

^omg = milligrams; mEq/L = milliequivalents per liter; mcg/L = micrograms per milliliter

[†]*Note:* Methylphenidate, amphetamines, alpha-agonists (clonidine, guanfacine), and atomoxetine are recommended prior to other treatment regimens due to better side-effect profile in combination with evidence for use.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Anxiety Disorders in Children under Age 6

Level 0

Comprehensive assessment that includes history of stressors, trauma, parental anxiety, and observation of child-parent interactions. Refer to *Principles of Practice* on page 5.

- ◆ Rating scales specifically for young children with anxiety symptoms are limited, but the Preschool Anxiety Scale (parent report) is available at <http://medicaidmentalhealth.org/>.
- ◆ Child and parent rating of anxiety symptom severity and impairment with feelings thermometer or faces barometer.



Level 1

Start with psychotherapy for at least 12 weeks that includes the parents and exposure-based cognitive behavioral therapy (CBT) adapted to young children.

- ◆ Assess primary caregivers for anxiety disorders and refer for treatment if impacting child's treatment progress.
- ◆ Address parental accommodation to child's symptoms of anxiety.



Level 2

If poor or partial response to psychosocial treatment after at least 12 weeks, consider combination treatment with fluoxetine and concurrent psychotherapy for children 4 to 5 years old.

- ◆ Review black-box warning with parents and monitor for suicidality.
- ◆ 8 to 10-week trial of fluoxetine if well tolerated starting at 1 to 2 mg/day.
- ◆ Maximum dosing of fluoxetine: 5 to 10 mg/day.
- ◆ Increased risk of behavioral activation (e.g., difficulty falling asleep, increased motor activity, increased talkativeness) in young children.
- ◆ Discontinuation trial after 6 to 9 months of effective medication treatment with gradual downward titration.

Less than 4 years old, refer to *Principles of Practice in Children under Age 6* on page 5.



Level 3

If fluoxetine is not successful, consider sertraline in combination with concurrent psychotherapy. Start with low dosing and monitor closely.

Not Recommended for Children Under Age 6 with Anxiety Disorders:

- ◆ The use of medication without psychosocial treatment.
- ◆ Use of tricyclic antidepressants (TCAs) or alpha-agonists.
- ◆ Ongoing use of benzodiazepines. May be used short-term for severe anxiety with medical or dental procedures.

The data for treating anxiety disorders with psychopharmacologic medication in young children is limited. Thus, exercise caution in prescribing pharmacological treatment below age 6.

Note: For dosing recommendations, refer to Table 9 on page 37.

Anxiety Disorders in Children and Adolescents Ages 6 to 17 Years Old

Level 0

A comprehensive assessment includes evaluation of:

- ◆ Risk factors including: stressors, trauma, bullying, social support systems, coping skills, learning disorders, and school issues.
- ◆ Family coping skills, parenting styles (overprotective or over-controlling), and family accommodations that support child's symptoms.
- ◆ Medical conditions and comorbid psychiatric disorders.
- ◆ Parental and family history of anxiety disorders and psychiatric treatment.
- ◆ Severity of anxiety symptoms and impairment from anxiety disorder.
 - ◇ Screening and monitoring for anxiety symptoms with multi-informant, validated rating scales for childhood anxiety (parent and child report) such as Self-Report for Childhood Anxiety Related Disorders (SCARED) and Spence Children's Anxiety Scale (SCAS). Available at <http://www.medicaidmentalhealth.org/>.
- ◆ Baseline somatic symptoms prior to medication trials.

Note: The Anxiety Disorders Interview Schedule for Children (ADIS-C) may assist clinicians to differentiate the specific anxiety disorders (Silverman and Albano, 1996). The ADIS-C is not available on the public domain.






Level 1

If mild to moderate anxiety disorder:

- ◆ **1a.** Provide family with psychoeducation regarding anxiety disorders and cognitive behavioral therapy (CBT).
 - ◇ Initiate treatment with exposure-based CBT.
- ◆ **1b.** If CBT is not available, first consider evidence-based psychosocial interventions or online/web-based therapy.
 - ◇ Provide family with psychoeducation regarding anxiety disorders and CBT.
 - ◇ Train parents to monitor child's anxiety symptoms (e.g., feelings thermometer or faces barometer) and set up behavioral program with positive reinforcement for child's efforts, progress in addressing anxiety symptoms, and decreasing avoidance.
 - ◇ If parental anxiety disorders interfere with treatment progress, provide referral for parent.

Anxiety Disorders

in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 2</p> <p>If moderate to severe anxiety disorder or inadequate response to CBT alone:</p> <ul style="list-style-type: none"> ◆ 2a. Initiate treatment with fluoxetine or sertraline monotherapy or in combination with CBT. <ul style="list-style-type: none"> ◇ Combination therapy with CBT has been shown to be more effective than medication alone. ◇ Review boxed warnings with family and monitor for treatment emergent suicidality and behavioral activation (e.g., difficulty falling asleep, increased motor activity, increased talkativeness). ◆ 2b. If first SSRI trial with fluoxetine or sertraline is not effective and/or there are treatment-limiting side-effects, switch to the other SSRI not used in Level 2a (fluoxetine or sertraline) and initiate/continue CBT.
	<p>Level 3</p> <p>If moderate to severe anxiety disorder and Levels 1 and 2 are not successful:</p> <ul style="list-style-type: none"> ◆ 3a. Duloxetine alone or in combination with CBT. Monitor height, weight, blood pressure and pulse with duloxetine. ◆ 3b. Consider fluvoxamine alone or in combination with CBT. <ul style="list-style-type: none"> ◇ Monitor for treatment emergent suicidality and behavioral activation for either duloxetine or fluvoxamine (see above).
	<p>Level 4</p> <p>If Levels 1, 2 and 3 are not successful, then re-assess diagnosis or refer to a specialist.</p> <p>If Level 3 is not successful, may consider escitalopram, citalopram, or venlafaxine in combination with CBT. Monitor for treatment emergent suicidality and behavioral activation. For venlafaxine, monitor height, weight, blood pressure, and pulse.</p>
<p>Not Recommended:</p> <ul style="list-style-type: none"> ◆ Paroxetine as first or second line treatment (concern about increased adverse effects, e.g., insomnia, behavioral activation, decreased appetite, vomiting, discontinuation symptoms, suicidal ideation). ◆ Benzodiazepines (BZD) as first-line monotherapy for long-term treatment of childhood anxiety disorders. 	

Notes:

Despite limited evidence, if partial or poor response with SSRIs, duloxetine, or venlafaxine, may consider monotherapy or augmentation with other medications Such as include: buspirone, alpha-2 agonist, clomipramine, and low dose benzodiazepine. If prescribed, benzodiazepines should be reserved for short-term use only.

For dosing recommendations, refer to Table 9 on page 37.

Medications for the Treatment of Anxiety Disorders

Clinicians should realize that data below age 6 for treating anxiety disorders is limited. Caution in using pharmacological treatment below age 6 is warranted.

Table 9.

Medications for the Treatment of Anxiety Disorders			
Drug Name	Young Child (4 – 6 Years)	Child (6 – 12 Years)	Adolescent
*Fluoxetine			
Starting Dose:	1–2 mg/day	2.5–5 mg/day	5–10 mg/day
Maximum Dose:	5–10 mg/day (limited data)	20–40 mg/day	40–60 mg/day
*Sertraline			
Starting Dose:	5–10 mg/day	10–12.5 mg/day	25 mg/day
Maximum Dose:	50–75 mg/day (limited data)	100–150 mg/day	150–200 mg/day
*Fluvoxamine			
Starting Dose:	5 mg/day	12.5–25 mg/day	25 mg/day
Maximum Dose:	50–75 mg/day (limited data)	100–200 mg/day	150–300 mg/day
Escitalopram			
Starting Dose:	1–2 mg/day	2.5 mg/day	5 mg/day
Maximum Dose:	5–10 mg (limited data)	10–20 mg/day	20–30 mg/day
Citalopram			
Starting Dose:	No data	5 mg/day	10 mg/day
Maximum Dose:		20–40 mg/day	40 mg/day (check EKG above 40 mg for QTc prolongation)
*Duloxetine			
Starting Dose:	No data	20–30 mg/day	30 mg/day
Maximum Dose:		60 mg/day	120 mg/day
*Venlafaxine			
Starting Dose:	No data	37.5 mg/day	37.5 mg/day
Maximum Dose:		75–112.5 mg/day (25–39 kg)	150 mg/day (40–49 kg) 225 mg/day (>50 kg)

*Indicates placebo-controlled studies in children 6 to 17 years with anxiety disorders.

Note: The FDA does not currently provide any dosing guidelines for venlafaxine in children or adolescents and does not recommend its use in this population due to mixed results in efficacy trials.

Additional Clinical Information and Resources

ADDITIONAL CLINICAL INFORMATION

- ◆ May titrate to lowest therapeutic dose once weekly.
- ◆ After reaching the lowest therapeutic dose, can increase SSRI or SNRI dose after one month if well tolerated and significant symptoms remain.
- ◆ If switching medications, in the absence of side effects, it is preferable to cross-titrate with an overlap of the two medications rather than titrating off one medication before starting the next medication.
- ◆ Can consider discontinuation trial of SSRI or SNRI after 12 months of effective medication treatment, during low stress period, and with gradual taper. Monitor for relapse.

ANXIETY DISORDERS AND COMORBID DISORDERS

- ADHD:
 - ◆ Stimulant medications can be combined with SSRIs for comorbid ADHD.
 - ◆ Non-stimulant medication may be helpful for children with co-morbid anxiety or who cannot tolerate stimulants.
- Depression and bipolar disorder:
 - ◆ Fluoxetine is first-line medication for comorbid unipolar depression.
 - ◆ For children with comorbid bipolar disorder:
 - ◇ Bipolar disorder should be stabilized first. Adding an SSRI or SNRI needs to be considered cautiously after CBT for anxiety disorder has been tried.
 - ◇ Alternatives to SSRI medications for anxiety disorder symptoms may be considered early in treatment, such as guanfacine for autonomic symptoms.
 - ◆ Use benzodiazepines with caution as they can increase disinhibition, mood lability, irritability, or aggression and may have potential for abuse.
- Substance use disorder (SUD):
 - ◆ Both anxiety disorders and SUD can be treated at the same time. Some substances increase anxiety and panic symptoms complicating treatment.
 - ◆ Use caution with benzodiazepines in presence of SUD, especially those with short half-life and increased risk for abuse and dependence.
 - ◆ Integrate additional psychotherapy components: Motivational strategies and CBT to identify triggers for cravings, develop alternative coping skills to reduce substance use.
- Autism spectrum disorders (ASD) and developmental disorders (DD):
 - ◆ Can modify CBT for anxiety disorders with ASD and/or DD.
 - ◆ SSRIs may be used for anxiety/irritability and obsessive-compulsive behaviors distressing to the child, but not all ritualized or repetitive behaviors. Consider when obsessive features, rigidity of thought, perseveration, rituals, anxiety, depression, and/or irritability are impairing.
 - ◆ For co-morbid ADHD symptoms, atomoxetine may reduce ADHD and anxiety symptom severity.

Additional Clinical Information and Resources (*continued*)

RESOURCES

- Children
 - ◆ What To Do When You Worry Too Much (Huebner, 2005)
 - ◆ A Boy and a Bear: The Children's Relaxation Book (Lite, 2003)
 - ◆ What To Do When You Dread Your Bed: A Kid's Guide to Overcoming Problems with Sleep (Huebner, 2008)
 - ◆ Camp Cope-A-Lot Online (Temple University and The OCD and Anxiety Institute, 2018): https://www.copingcatparents.com/Camp_Cope_A_Lot
- Adolescents
 - ◆ My Anxious Mind: A Teen's Guide to Managing Anxiety and Panic (Tompkins and Martinez, 2009)
 - ◆ Riding the Wave Workbook for Adolescents with Panic Disorder (Pincus, Ehrenreich and Spiegel, 2008)
 - ◆ Smartphone applications for youth and their parents that provide access to tools taught in CBT sessions (e.g., Mayo Clinic Anxiety Coach)
- Parents/caregivers
 - ◆ Helping Your Child with Selective Mutism (McHolm, Cunningham, Vanier and Rapee, 2005)
 - ◆ When Children Refuse School: A CBT Approach Parent Workbook (Kearney and Albano, 2007)
 - ◆ Helping Your Anxious Child (Rapee, Wignall, Spense, Cobham and Lyneham, 2008)
 - ◆ Keys to Parenting Your Anxious Child (Manassis, 2008)
 - ◆ The Selective Mutism Treatment Guide: Manuals for Parents, Teachers and Therapists (Perdnick, 2012)
 - ◆ Freeing Your Child from Anxiety (Chansky, 2014)
 - ◆ Parent training, educational materials, and resources at <https://www.anxietybc.com/> and <http://www.copingcatparents.com/>
 - ◆ Coping Cat Parents (OCD and Anxiety Institute, 2018): <https://www.copingcatparents.com/>
- Websites
 - ◆ American Academy of Child and Adolescent Psychiatry (AACAP), <http://www.aacap.org> (Facts for Families)
 - ◆ Anxiety and Depression Association of America (ADAA), <https://www.adaa.org/> / F Selective Mutism Group-Child Anxiety Network, <http://www.selectivemutism.org/> / F Association for Behavioral and Cognitive Therapies, <http://www.abct.org/Home/>
 - ◆ Computer-based CBT treatments (cCBT) for youth with anxiety disorders: The BRAVE Program, BRAVE-Online, and Camp Cope-A-Lot

Note: Above resources and website links were updated at the time of publication.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Bipolar Disorder (Acute Mania or Mixed Episodes) in Children and Adolescents Ages 6 to 17 Years Old

Level 0

Comprehensive assessment. Use systematic interview covering mania and depression symptoms, as well as other associated and comorbid problems (e.g., psychosis, behavioral problems, ADHD symptoms, substance misuse). Obtain a family history of psychopathology including depression and mania. Information from teachers and other outside informants is useful to document pattern and course of symptoms.

- ◆ Classic bipolar disorder has distinct episodes representing a clear change from usual behavior; DSM-5 symptoms consist of manic symptoms: elevated and/or irritable mood and increased energy occurring most of the day, every day; co-occurring symptoms include grandiosity, decreased need for sleep, rapid speech, and flight of ideas (no current validity under age 6).
- ◆ Episodes of mania should be distinct from baseline ADHD symptoms. If truly comorbid, mania should be treated and stabilized before treating ADHD.
- ◆ If the diagnosis of mania cannot be distinguished from ADHD, and especially combined ADHD and Oppositional Defiant Disorder, ADHD should be treated first with discussion with family members about advantages and disadvantages. Refer to ADHD guidelines on page 18.
- ◆ If rage outbursts are the primary focus of treatment, track the frequency, intensity, number and duration of episodes. Rule out Disruptive Mood Dysregulation Disorder (DMDD).
- ◆ If DMDD is present, refer to those recommendations on page 45; otherwise, treat the primary disorder first and then treat the aggression. Refer to the aggression treatment guidelines on page 29.



Level 1

For manic/mixed episodes, monotherapy with one of the following FDA approved agents (approved for youth between the ages of 10-17):

- ◆ Aripiprazole
- ◆ Risperidone
- ◆ Quetiapine
- ◆ Asenapine




For classic mania in adolescents:

- ◆ Lithium, (FDA approved for ages 12 to 17 years)

For youth with bipolar depression:

- ◆ Lurasidone (FDA approved for ages 10 to 17 years)

Bipolar Disorder (Acute Mania or Mixed Episodes) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 2</p> <p>For acute mania or mixed episodes, if there is partial response to a single atypical antipsychotic, augment with lithium</p> <p>If monotherapy with atypical antipsychotic listed in Level 1 is not effective:</p> <ul style="list-style-type: none"> ◆ 2a. Switch to monotherapy with another antipsychotic listed in Level 1 or olanzapine. ◆ 2b. Switch to lithium. <p>For bipolar depression, if lurasidone not effective, switch to olanzapine/fluoxetine combination.</p>
	<p>Level 3</p> <p>Re-assess the diagnosis. Refer to specialist.</p> <p>For acute mania or mixed episodes, monotherapy with antipsychotic (except clozapine) not listed in Level 1 or 2, or combination of antipsychotic with mood stabilizer [lithium, or valproic acid (VPA)/divalproex if lithium failed].</p> <p>For bipolar depression, based on adult evidence, consider lamotrigine.</p>
	<p>Level 4</p> <p>Consider clozapine or ECT in adolescents.</p>
<p>Not Recommended: Two antipsychotics concurrently (except during cross-tapering).</p>	

Dosing Recommendations for Atypical Antipsychotics in Bipolar Disorder in Children and Adolescents Ages 6 to 17 Years Old

Clinicians should realize that data below age 10 for treating mania and mixed states are limited and caution in using pharmacological treatment below age 10 is warranted.

Table 10.

Dosing Recommendations for Atypical Antipsychotics and Mood Stabilizers in Bipolar Disorder			
Drug Name	Starting Dose	Maximum Dose	FDA Approved Age Range
Bipolar Mania			
Aripiprazole	2–5 mg/day	30 mg/day	10–17 years old
Asenapine	2.5 mg sublingual (SL) twice a day. After 3 days, may increase to 5 mg SL twice daily, and after an additional 3 days up to 10 mg SL twice a day, as needed and as tolerated. Avoid food and liquids for at least 10 minutes before and after administration.	10 mg twice a day	10–17 years old
Lamotrigine	12.5 mg/day	150 mg/day (<50 kg weight) 200 mg/day (>50 kg weight)	Not approved in children or adolescents for bipolar disorder.
Lithium	300–600 mg/day Goal for acute mania: Blood level 0.8–1.2 mEq/L Goal for maintenance: Blood level 0.6–1 mEq/L	Dose determined by blood level. Max trough blood level should be 1.2 mEq/L	12–17 years old
Olanzapine	2.5–5 mg once daily. Titrate weekly by 2.5–5 mg increments.	20 mg/day	13–17 years old
Quetiapine	Children: 12.5 mg bid Adolescents: 25 mg bid	Children: 400 mg/day Adolescents: 600 mg/day	10–17 years old
Risperidone	Children: 0.25 mg/day Adolescents: 0.5–1 mg bid	Children: 4 mg/day Adolescents: 6 mg/day	10–17 years old
Valproate	10–15 mg/kg/day in divided doses Goal: 80–125 mcg/mL	Dose determined by blood level. Max blood level should be 125 mcg/mL.	Not approved in children or adolescents for bipolar disorder.
Bipolar Depression			
Lamotrigine	12.5 mg/day	150 mg/day (<50 kg weight) 200 mg/day (>50 kg weight)	Not approved in children or adolescents for bipolar disorder.
Lurasidone	20 mg/day	80 mg/day	10–17 years old
Olanzapine/ Fluoxetine	3 mg/25 mg once daily	12 mg/50 mg once daily	10–17 years old

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Dosing Recommendations for Atypical Antipsychotics in Bipolar Disorder in Children and Adolescents Ages 6 to 17 Years Old

Table 10 (continued).

Dosing Recommendations for Atypical Antipsychotics and Mood Stabilizers in Bipolar Disorder			
Drug Name	Starting Dose	Maximum Dose	FDA Approved Age Range
Mixed Episodes			
Aripiprazole	2–5 mg/day	30 mg/day	10–17 years old
Asenapine	2.5 mg sublingual (SL) twice a day. After 3 days, may increase to 5 mg SL twice daily, and after an additional 3 days up to 10 mg SL twice a day, as needed and as tolerated. Avoid food and liquids for at least 10 minutes before and after administration.	10 mg twice a day	10–17 years old
Olanzapine	2.5–5 mg once daily. Titrate weekly by 2.5–5 mg increments.	20 mg/day	13–17 years old
Chlorpromazine	Children: 25–50 mg/day Adolescents: 25–100 mg/day	Children (under 12): 200 mg/day Adolescents: 500 mg/day	Not approved for pediatric mania
Risperidone	Children: 0.25 mg/day Adolescents: 0.5–1 mg bid	Children: 4 mg/day Adolescents: 6 mg/day	10–17 years old
Maintenance			
Aripiprazole	2–5 mg/day	30 mg/day	10–17 years old
Lithium	300–600 mg/day Goal for acute mania: Blood level 0.8–1.2 mEq/L Goal for maintenance: Blood level 0.6–1 mEq/L	Dose determined by blood level. Max trough blood level should be 1.2 mEq/L	12–17 years old
Valproate	10–15 mg/kg/day in divided doses Goal: 80–125 mcg/mL	Dose determined by blood level. Max blood level should be 125 mcg/mL.	Not approved in children or adolescents for bipolar disorder.

*Medications are listed in alphabetical order.

Dosing Recommendations for Atypical Antipsychotics in Bipolar Disorder in Children and Adolescents Ages 6 to 17 Years Old

MONITORING

- Refer to *Principles of Practice* on page 8.

MINIMIZING SIDE EFFECTS WHEN SWITCHING PSYCHOTHERAPEUTIC MEDICATIONS

- Start low. Go slow. Stop slowly. Avoid abrupt stopping, starting, and/or switching to reduce risk of rebound and withdrawal phenomena.
- Do not switch until the primary disorder has been treated according to target disorder guidelines at adequate dose and duration.
- Only stop and/or switch abruptly if a serious adverse effect necessitates it (i.e., severe neutropenia, agranulocytosis, diabetic ketoacidosis, neuroleptic malignant syndrome, acute pancreatitis, lithium toxicity, Stevens-Johnson syndrome, etc.).
- Slow switch using cross-titration is the preferred method; an even slower switch can be done using the plateau-cross titration method, with therapeutic dose overlap of medications (when switching to a less sedating cholinergic medication, or one with a much longer half-life).
- If time permits, do not reduce the first medication by more than 25–50% per 5 half-lives.

ADDITIONAL CONSIDERATIONS

- When switching medications, the more different the binding affinity for the same receptor (between the two drugs), the greater risk for side effects and rebound and withdrawal phenomena (especially sedating: anti-cholinergic, dopaminergic).
- The more different the half-life of the medications with the same physiological effect (desired or undesired), the greater the risk for withdrawal and rebound phenomena. Withdrawal and rebound phenomena are most likely when discontinuing from a short half-life medication.
- Withdrawal and rebound phenomena are most likely to occur when switching from a strongly antihistaminergic (sedating) or anti-cholinergic medication (e.g., clozapine, olanzapine, quetiapine), to a less strongly binding medication (e.g., haloperidol, molindone, paliperidone, aripiprazole, ziprasidone); or from a strongly binding anti-dopaminergic medication [i.e., first-generation antipsychotics (FGA AP) such as risperidone, paliperidone] to a less strongly binding antipsychotic (e.g., clozapine, quetiapine); or a full antagonist to a partial agonist (e.g., aripiprazole).
- Insufficient efficacy or increased side effects may occur during a switch when medications metabolized by cytochrome P450 liver enzymes are paired with a medication that affects that same enzyme.
- Never discontinue lithium or clozapine abruptly to avoid potentially severe rebound of mania or psychosis.
- Quetiapine and mirtazapine can lead to more sedation at lower doses (below 250–300 mg for quetiapine and below 15 mg for mirtazapine) because of its high affinity for histamine receptors. This is offset by increased alpha-adrenergic activity at higher doses, which counteracts this sedative effect at lower doses.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Disruptive Mood Dysregulation Disorder (DMDD) in Children and Adolescents Ages 6 to 17 Years Old: Recommendations

Note:

Disruptive Mood Dysregulation Disorder (DMDD) is a new diagnosis in DSM-5 characterized by irritability and temper outbursts.

- ◆ *The core symptoms of DMDD are irritability, anger, aggression, and temper outbursts (verbal or behavioral/physical) that are disproportionate to the situation and significantly more severe than the typical reaction of same-aged peers.*
- ◆ *Irritability and temper outbursts are distinct symptoms. Irritability is defined as becoming extremely angry with what most would feel is minor provocation (Copeland, et al., 2015). Temper outbursts manifests verbally (e.g. verbal rages) or behaviorally (e.g. physical aggression toward people or property).*

Due to the current lack of evidence-based specific and suitable pharmacological treatment options for DMDD, clinical judgment is paramount in the choice of medications, dose, length of treatment, and measurement of treatment response.

Medications are only part of the treatment plan and are provided in combination with psychosocial interventions.

Level 0

Comprehensive assessment:

- ◆ Systematic interview covering other psychiatric conditions in which irritability may be a presenting symptom:
 - ◇ ADHD
 - ◇ ODD and/or conduct disorder
 - ◇ Bipolar disorder (mania)
 - ◇ Depressive disorders
 - ◇ Anxiety disorders (including obsessive-compulsive disorder)
 - ◇ PTSD and trauma related conditions
 - ◇ Autism Spectrum Disorder
 - ◇ Intermittent explosive disorder
 - ◇ Psychosis
 - ◇ Drug/alcohol use/abuse
- ◆ Family history of psychopathology including depressive disorders, anxiety disorders, and bipolar disorder (with specific assessment for mania).
- ◆ Information from collateral sources (e.g., teachers, caregivers) to establish duration of symptoms.

Use rating scales to assess for psychiatric conditions as noted above. Refer to relevant sections in these *Practice Guidelines*.

- ◆ Assess for other medical conditions or medications that may be contributing to symptoms.
 - ◇ If other medical conditions are present, make appropriate referrals to primary care or specialists to ensure conditions are treated adequately.
 - ◇ If symptoms are medication-induced, consider tapering or stopping the offending agent.

Disruptive Mood Dysregulation Disorder (DMDD) in Children and Adolescents Ages 6 to 17 Years Old: Recommendations (*continued*)

Level 0 (*continued*)

- ◆ Assess for psychosocial stressors (e.g., conflict at home, classroom situation, bullying) that may be contributing to the child's symptoms (i.e., irritability, anger, temper outbursts disproportionate to the situation and more severe than the typical reaction of same-aged peers).
- ◆ Assess and document the severity of symptoms (frequency, intensity, number and duration of outbursts, and irritability) using rating scales.

- ◇ *Recommended rating scales for irritability:*

- Affective Reactivity Index (quick assessment, focuses on frequency of irritability only)
- Review of irritability items on standardized ADHD rating scales such as the Vanderbilt and SNAP (e.g., Irritability Subscale: sum of "loses temper", "touchy or easily annoyed", "angry/resentful from Vanderbilt); Disruptive Behavior Disorder Revised Scale (Items 24, 26, and 28)
- Child Behavior Checklist (comprehensive scale that includes irritability sub-scale)
- Aberrant Behavior Checklist (used in children with developmental disorders, has irritability sub-scale)

Note: The Child Behavior Checklist and Aberrant Behavior Checklist are not available in the public domain.

- ◇ *Recommended scales for aggression and outbursts:*



- Overt Aggression Scale-Modified (measures nature and severity of aggression)

For available clinical rating scales, refer to <http://www.medicaidmentalhealth.org/>.

- ◆ Assess and document degree of impairment, which is based on the severity, frequency, and duration of outbursts.

Note: Once other medical and psychiatric conditions have been assessed or/ruled out, and treatment has been optimized for known conditions (medical, psychiatric) in which irritability and aggression may be presenting symptoms and for which there are evidence based treatments, if DSM-5 criteria are met for Disruptive Mood Dysregulation Disorder, that diagnosis may be made.

Disruptive Mood Dysregulation Disorder (DMDD) in Children and Adolescents Ages 6 to 17 Years Old: Recommendations *(continued)*

	<p>Level 1</p> <p><i>The core symptoms of DMDD are irritability, anger, aggression, and temper outbursts (verbal or behavioral/physical) that are disproportionate to the situation and significantly more severe than the typical reaction of same-aged peers. Irritability and aggression are distinct symptoms. Irritability is defined as becoming extremely angry with what most would feel is minor provocation (Copeland, et al., 2015). Aggression refers to hostile, injurious, or destructive behaviors.</i></p> <ul style="list-style-type: none"> ◆ 1a. Treat co-morbid disorders optimally (eg., ADHD + irritability – optimize stimulants). ◆ 1b. Address psychosocial stressors that are directly contributing to or worsening the child’s symptoms (e.g., irritability, anger, aggression, temper outbursts). ◆ 1c. Address the severity of the child’s symptoms. <ul style="list-style-type: none"> ◇ If symptoms are mild, implement psychosocial interventions (e.g., targeted case management, crisis intervention programs, parent training). ◇ If symptoms are moderate to severe (e.g., child is removed from school, has been seen in emergency room or psychiatrically hospitalized), psychosocial interventions alone are unlikely to suffice. Consider interventions in Level 2.
	<p>Level 2</p> <p>Currently, limited scientific evidence exists for the use of medications for DMDD. If symptoms persist, may consider use of treatments targeted toward aggression, including atypical antipsychotics, mood stabilizers, alpha-agonists, or antidepressants in conjunction with psychotherapeutic and psychosocial interventions. Refer to Table 8 on page 32 for dosing recommendations for aggression.</p> <p>Consider referral to a specialist.</p>
<p>Not Recommended: Use of medications alone.</p>	

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Insomnia Disorder in Children and Adolescents

Level 0

Comprehensive assessment

- ◆ Sleep disorders are prevalent in children with neurodevelopmental problems and other psychiatric conditions. Refer to Autism Spectrum Disorder (ASD) guidelines for comprehensive assessment and treatment of sleep problems in this population available at <http://www.medicaidmentalhealth.org/>.
- ◆ Sleep practices (e.g., electronic use, caffeine, napping)
- ◆ Primary sleep disorders [Obstructive sleep apnea (OSA), Restless leg syndrome (RLS), circadian rhythm disorders]
- ◆ Medical, psychiatric and neurodevelopmental co-morbidities
- ◆ Concomitant medications, especially psychotherapeutic medication
 - ◇ Direct effects on sleep
 - ◇ Exacerbation primary sleep disorders
- ◆ Caregiver role
- ◆ Presentation: sleep onset/maintenance

The BEARS Sleep Screening Algorithm screens for major sleep disorders for ages 2 to 18 years. Refer to <http://www.medicaidmentalhealth.org/> for the BEARS Sleep Screening Algorithm and for updated links to sleep diaries.

Additional considerations:

- ◆ Consider chronic sleep loss and primary sleep disorders (OSA, RLS, and narcolepsy) as potential causes of psychiatric symptoms.
- ◆ Consider comorbid chronic sleep loss and primary sleep disorders as potential contributors to psychiatric symptoms.
- ◆ Applies to all psychiatric disorders but particularly ADHD and depression.

Note: Polysomnography (sleep study) is best suited to diagnosing a primary sleep disorder such as OSA and should not be used to evaluate primary insomnia.



Level 1

Education

- ◆ About the basics of sleep regulation, appropriate and healthy sleep practices

Behavioral interventions

- ◆ Healthy sleep practices
 - ◇ Regular sleep schedule and bedtime routine, stimulus control (e.g., cool, quiet, dark sleep environment, avoiding bright light), avoidance of electronic devices (e.g., TV, computers, tablet devices, phones, etc.), limit caffeine, age appropriate napping, sleep restriction
- ◆ Caregiver-based for younger children
 - ◇ Sleep training, bedtime fading, bedtime pass
- ◆ Cognitive Behavioral Therapy for Insomnia (CBT-I) for older children and adolescents
 - ◇ Stimulus control, sleep restriction

Insomnia Disorder in Children and Adolescents (*continued*)


	<p>Level 2</p> <p>Melatonin: 0.5 mg–10 mg nightly. No data for children under 2 years old. Melatonin is administered from 30 to 60 minutes prior to the desired bedtime. Refer to Table 11 below for dosing. <i>Consider recommending the use of pharmaceutical grade melatonin; refer to US Pharmacopeia available online.</i> Studies of melatonin use up to 4 years have failed to demonstrate significant side effects in a variety of pediatric populations; however, concerns based on animal studies about possible effects on pubertal development in humans with long-term use have been raised. <i>In the absence of additional systematic long-term clinical trials, neither claims of safety concerns nor those of negligible risk of melatonin use in children can be substantiated.</i></p>
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Table 11.

Medications for the Treatment of Insomnia in Children and Adolescents			
Medication*	Starting Dose	Titration	Discontinuation
Melatonin	<p><i>Note on typical hypnotic dose of melatonin:</i></p> <p>Children <2: No data available</p> <p>Children 2 years and older: 0.5 to 1 mg po nightly</p> <p>Adolescents: 1 to 3 mg po nightly</p>	<p>Up to 3.0 mg po nightly in children</p> <p>Up to 9 to 10 mg po nightly in adolescents</p>	As clinically appropriate
Clonidine	0.05 mg po nightly	0.05 mg per week up to 0.3 mg nightly	0.05 mg every 3 days
Diphenhydramine:	<p>Children 2 years and older: 12.5 mg po nightly</p> <p>Adolescents: 25–50 mg po nightly</p>	<p>Up to 50 mg po nightly in children</p> <p>Up to 100 mg po nightly in adolescents</p>	As clinically appropriate

*Melatonin is considered a dietary supplement and is not regulated by the FDA.

*Clonidine is NOT FDA-Approved for treatment of insomnia in children and adolescents. Evidence exists supporting the use of clonidine in certain clinical populations with comorbid insomnia (neurodevelopmental disorders and ADHD).

Caution: Inadequate dose of sleep aids may result in night-time awakening. Too high a dose can result in over-sedation.

Insomnia Disorder in Children and Adolescents (*continued*)



Level 3

Pharmacotherapy should only be considered for **short-term use**.

Pharmacotherapy with behavioral treatment may be appropriate for:

- ◆ Short-term crisis intervention.
- ◆ Insomnia with comorbid high risk psychiatric or neurodevelopmental conditions.
- ◆ Insomnia that exacerbates psychiatric and/or medical conditions.

Recommend clonidine 0.05–0.3 mg nightly.

Diphenhydramine: 12.5–50 mg nightly. Can be considered for short-term situational or occasional use in younger children (available as liquid), especially those with comorbid atopic disease. Adverse reactions include paradoxical excitation and daytime somnolence.



Level 4

Appropriate psychotropic medications for patients with psychiatric comorbidities. Refer to relevant sections in these *Practice Guidelines* for dosing recommendations.

Not Recommended:

Medication as the first or sole treatment strategy.

Use of sedating psychotropic medication in the absence of other psychiatric disorder.

The following have little or no scientific evidence, insufficient clinical pediatric use or experience and/or unacceptable risk/benefit ratios to warrant clinical recommendations:

- ◆ Amitriptyline
- ◆ Benzodiazepines
- ◆ Chloral Hydrate
- ◆ Doxepin
- ◆ Doxylamine
- ◆ Eszopiclone
- ◆ First/second generation antipsychotics (FGAs/SGAs)
- ◆ Ramelteon
- ◆ Suvorexant
- ◆ Zolpidem

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Major Depressive Disorder (MDD) in Children under Age 6

Level 0

Comprehensive assessment. Refer to *Principles of Practice* on page 5.



Level 1

Psychotherapeutic intervention (e.g., dyadic therapy) for 6 to 9 months; assessment of parent/guardian depression and referral for treatment if present.



Level 2

If poor response to psychosocial treatment after 6 to 9 months, re-assess diagnosis, primary care giver response to treatment, and/or consider switching to a different or more intensive psychosocial treatment. Consider child psychiatric consultation or second opinion.

Under 3 years, refer to *Principles of Practice* on page 5.



Level 3

If depression is severe, or there is continued poor response to psychosocial treatment alone, consider combination treatment with fluoxetine and concurrent psychosocial treatment.

- ◆ Fluoxetine — 4 to 5 years old
 - ◇ Maximum dose: 5 mg/day
 - ◇ Discontinuation trial after 6 months of any effective medication treatment with gradual downward taper.
 - ◇ **Monitor for behavioral disinhibition and suicidality.** Behavioral disinhibition is defined as impulsive, sensation seeking behaviors and lack of self-regulation.

Not Recommended:

- ◆ The use of medication without psychosocial treatment.
- ◆ Use of tricyclic antidepressants (TCAs) or paroxetine.

Note: In preschool children, MDD is very rare (point prevalence is thought to be 0.5%).

Major Depressive Disorder (MDD) in Children and Adolescents Ages 6 to 17 Years Old

Level 0

Assessment

- ◆ Screening using multi-informant, validated rating scales that include depression and screening for comorbidity (other psychiatric and medical conditions):
 - ◇ Center for Epidemiological Studies Depression Scale for Children Patient Health Questionnaire (CES-DC)
 - ◇ Patient Health Questionnaire-9 (PHQ-9)
 - ◇ Pediatric Symptom Checklist (PSC)

Note: The above scales are available at <http://medicaidmentalhealth.org/>.
- ◆ Perform risk assessment: Specific screen for harm to self or others and access to firearms, knives/sharps, and other lethal means such as alcohol, prescription and non-prescription medications.
- ◆ Evaluate sleep hygiene, diet, and exercise.
- ◆ Address environmental stressors such as abuse, bullying, conflict, functioning at school, peer relationships, family dysfunction, and caregiver depression.
- ◆ **Establish a safety plan:**
 - ◇ Removal of firearms, knives/sharps, and other lethal means such as alcohol, prescription and non-prescription medications.
 - ◇ **Develop an emergency action plan:**
 - Provide adolescents with mutually agreeable and available emergency numbers and contacts.
 - Engage a concerned third party familiar with the adolescent.
- ◆ Positive screen: DSM-5 based interview evaluation.
- ◆ Consider medical reason for depression [e.g., hypothyroidism, B12/folate deficiency, anemia, malnutrition (with or without eating disorder), chronic disorder (diabetes, asthma, inflammatory bowel disease, juvenile rheumatoid disease, infectious mononucleosis, etc.)].
- ◆ Rule out iatrogenic etiology of depression (i.e., medication side effects/interactions).
- ◆ Evaluate past psychiatric and medical history, previous treatment, family conflict and current depression of family and caregivers, bullying, abuse, peer conflict, school issues, and substance abuse.
- ◆ Consider and rule out presence of bipolar depression. Pointers: Prior (hypo) mania, family history of bipolar disorder, atypical depression with reverse neurovegetative signs, seasonal affective component, brief and recurrent episodes, and melancholic depression in prepubertal child.

Major Depressive Disorder (MDD) in Children and Adolescents Ages 6 to 17 Years Old (continued)

Level 0 (continued)

- ◆ Track outcomes using empirically validated tools. Refer to DSM-5 Severity Measure for Depression, Child Age 11–17 available and Child Depression Inventory (CDI) available at <http://www.medicaidmentalhealth.org/>.

Note: The Child Depression Inventory is not available in the public domain.

Always monitor for:

- ◆ Emergence or exacerbation of suicidality and balance the risk–benefit profile of antidepressants during the acute treatment phase.
- ◆ Behavioral activation (e.g., difficulty falling asleep, increased motor activity, increased talkativeness)
- ◆ Adverse events
- ◆ Treatment adherence
- ◆ Treatment or inherently emergent comorbidity
- ◆ Potential development of (hypo)mania






Level 1


Initial treatment plan

- ◆ Active support: 6 week trial (if mild symptoms).
 - ◇ Components of active support must include psychosocial interventions and psychoeducation and may include: Self-help materials, active listening/relationship building, school involvement, mood monitoring, pleasant activities, cognitive restructuring, family conflict reduction, sleep hygiene, and exercise.

Major Depressive Disorder (MDD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 2</p> <p>Reassess diagnosis first (e.g., bipolar disorder), rule out psychostimulant or substance abuse related psychosis. Targeted treatments if symptoms are moderate to severe, impairment continues, and/or no response to active support. Start with Cognitive Behavioral Therapy (CBT), Interpersonal Therapy (IPT), depression-specific behavioral family therapy.</p> <ul style="list-style-type: none"> ◆ 2a. Fluoxetine or combination of CBT or IPT psychotherapy with fluoxetine. ◆ 2b. May consider use of escitalopram for age 12 and above. <p>Qualifiers:</p> <ul style="list-style-type: none"> ◆ Mild: Psychosocial interventions only. ◆ Moderate/Severe: Combination of CBT or IPT psychotherapy with fluoxetine. ◆ Psychosis: SSRIs (fluoxetine, escitalopram) plus consider antipsychotics (adult data only). Careful evaluation of symptoms to determine the degree of psychosis to warrant the use of antipsychotics. ◆ Comorbidity: Combination of CBT or IPT psychotherapy with fluoxetine; treat comorbidity. ◆ Suicidality: Intensify surveillance and follow-up; combination therapy with CBT or IPT psychotherapy if on antidepressant only or remove antidepressant if otherwise ineffective; if chronic, consider lithium augmentation.
	<p>Level 3</p> <p>Inadequate response</p> <ul style="list-style-type: none"> ◆ If no clinical response to the medication utilized in Level 2, switch to another medication listed above.
	<p>Level 4</p> <p>Poor or non-response</p> <ul style="list-style-type: none"> ◆ Refer to mental health specialist. ◆ Re-assess diagnosis (bipolar disorder, substance use disorder, anxiety disorders, PTSD), rule out medical condition (e.g., hypothyroidism), or medication side effects. ◆ Increase psychosocial intervention and medication dose if tolerated. ◆ Augment with alternate psychosocial intervention (either CBT or IPT). ◆ Consider change in level of care (treatment setting and interventions based on severity of illness). ◆ For milder form and/or seasonal affective symptoms with light sensitivity, consider bright light therapy.

Major Depressive Disorder (MDD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	<p>Level 5</p> <p>If poor or non-response to Level 4 interventions</p> <ul style="list-style-type: none">◆ Switch previously used SSRIs to sertraline, citalopram, bupropion or venlafaxine, especially in those who do not have access to psychotherapy or have not responded to non-pharmacological interventions.◆ Consider augmentation of SSRI with bupropion, thyroxine, lithium, buspirone, mirtazapine, aripiprazole, quetiapine, or risperidone (adult data only).◆ If psychotic/severe: ECT (for adolescents). <p>Notes:</p> <ul style="list-style-type: none">◆ Factors favoring maintenance treatment (at any Level):<ul style="list-style-type: none">◇ Partial response◇ Prior relapse◇ Suicidality◇ Comorbidity risk for relapse◇ Environmental risk for relapse◇ Family history of relapsing/recurrent major depression◇ Lack of return to full premorbid functioning◆ Maintenance treatment: 9 to 12 months.◆ After maintenance treatment: If stable, at level of premorbid functioning, and no anticipated increase in stressors, consider discontinuation trial over 3 to 4 months.◆ Venlafaxine: Caution due to robust evidence of a significantly increased risk for suicidal behavior or ideation <p><i>Note on pharmacogenomic testing: The current evidence does not support pharmacogenomic testing in routine psychiatric clinical practice.</i></p>
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For a full list of references, visit <http://medicaidmentalhealth.org/>.

Major Depressive Disorders (MDD) Resources

SELECTED RESOURCES

■ Guides for Parents:

- ◆ If Your Adolescent Has Depression or Bipolar Disorder: An Essential Resource for Parents (Evans, 2005)
- ◆ Adolescent Depression: A Guide for Parents (Mondimore and Kelly, 2015)
- ◆ Depression and Your Child: A Guide for Parents and Caregivers (Serani, 2013)

■ Workbooks for Youth:

- ◆ Think Good, Feel Good: A Cognitive Behavior Therapy Workbook for Young People (Stallard, 2002)
- ◆ How to Get Unstuck from the Negative Much: A Kid's Guide to Getting Rid of Negative Thinking (Sullivan, 2013)

■ Books for Children:

- ◆ What to Do When You Grumble Too Much: A Kid's Guide to Overcoming Negativity (Huebner, 2007)
- ◆ The Princess and the Frog: A Story for Children with Depression (Jones, 2015)

■ Relevant Websites:

- ◆ American Academy of Child and Adolescent Psychiatry (AACAP) Depression Resource Center: https://www.aacap.org/aacap/Families_and_Youth/Resource_Centers/Depression_Resource_Center/Home.aspx
- ◆ National Institute of Mental Health—Depression in Children and Adolescents: The National Institute of Mental Health Site on Depression in Children and Adolescents <http://www.nimh.nih.gov/health/topics/depression/depression-in-children-and-adolescents.shtml>
- ◆ National Alliance of the Mentally Ill (NAMI): National Alliance of the Mentally Ill (NAMI) <https://www.nami.org/>
- ◆ Depression and Bipolar Support Alliance: Depression and Bipolar Support Alliance <http://www.dbsalliance.org/site/PageServer?pagename=home>
- ◆ Teen Mental Health Website: <http://teenmentalhealth.org/care/parents/>

Note: Above resources and website links were updated at the time of publication.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Obsessive Compulsive Disorder (OCD) in Children and Adolescents Ages 6 to 17 Years Old

Level 0

Comprehensive assessment that includes screening for OCD symptoms and medical causes.

A comprehensive assessment before initiating treatment includes:

- ◆ Duration, type of course (e.g., episodic), and severity. Family history (for OCD, tics, autoimmunity)
- ◆ Physical examination: Movements (tics or chorea), red hands, dysmorphology, inflamed throat
- ◆ If new and sudden onset, examine for clinical and subclinical infections, especially group A streptococcus and mycoplasma pneumonia, and treat
- ◆ Review for most common comorbid presentations: ADHD, tics, separation anxiety, and ASD, hair pulling disorder
- ◆ Specialty referral as appropriate, e.g., child psychiatry or for cognitive behavioral therapy (CBT)

Associated conditions:

- ◆ Health status: Infections, endocrine disorder, autoimmune
- ◆ Genetic disorder: Velocardiofacial Syndrome (VCFS), Wilson's, copy number variations (CNVs) associated with OCD/tics
- ◆ Secondary to a medication or substance: Stimulants, atypical antipsychotics, montelukast, lamotrigine, etc.
- ◆ Trauma: physical, emotional, and sexual



Level 1



- ◆ **1a.** If mild to moderate OCD, start with behavioral therapy (cognitive behavioral therapy/exposure with response prevention, CBT+ERP) with qualified therapist.
- ◆ **1b.** If moderate to severe OCD, start with combination of behavioral therapy (CBT + ERP) and approved SSRI such as sertraline, fluoxetine or fluvoxamine.



Level 2

- ◆ **2a.** If mild to moderate OCD with an inadequate response to CBT alone (at least 15 sessions) , add an approved SSRI (sertraline, fluoxetine, or fluvoxamine).
- ◆ **2b.** If moderate to severe OCD with an inadequate response to combination therapy after 10 to 12 weeks of optimized SSRI dosing, switch to another approved SSRI.

Obsessive Compulsive Disorder (OCD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

	Level 3 <ul style="list-style-type: none">◆ 3a. If inadequate response after 10 to 12 weeks of optimized SSRI dosing, utilize another approved SSRI or consider clomipramine monotherapy.◆ 3b. Consider other non-FDA approved SSRI (e.g., escitalopram).
	Level 4 <p>Re-assess diagnosis and refer to specialist. If treatment resistant to behavior therapy and/or SSRI, augment with low dose aripiprazole (0.5 to 3 mg/day) or clomipramine (10 to 50 mg/day).</p>

Please visit our website to view:

- Electronic versions of our adult and child/adolescent guidelines (available in full or in part)
- News and announcements
- Webinars
- Staff publications
- Alerts of recent publications and related literature
- Resources and tools



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Obsessive Compulsive Disorder (OCD) in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

OCD TREATMENT CONSIDERATIONS

- A standard course of CBT with ERP is 10 to 15 sessions, 20 sessions if treatment refractory.
- OCD medication — time to full effect may be long (8-12 weeks) and incomplete (50% response).
- SSRI efficacy is much less when in the context of comorbid conditions (especially tics and oppositional defiant disorder).
- In many patients with OCD and a comorbid tic disorder, combination pharmacotherapy may be necessary (e.g., SSR+alpha-2 agonist/D2 blockers). Refer to tic guidelines available at <http://www.medicaidmentalhealth.org/>.

Table 12.

Medications for the Treatment of OCD				
Drug Name	Starting Dose (mg/day)		Max Dose (mg/day)	
	Pre-Adolescent	Adolescent	Pre-Adolescent	Adolescent
Fluoxetine ^a	2.5–5 mg/day	10–20 mg/day	40 mg/day	80 mg/day
Sertraline	12.5–25 mg/day	25–50 mg/day	150 mg/day	200 mg/day
Fluvoxamine	12.5–25 mg/day	25–50 mg/day	150 mg/day	300 mg/day
Clomipramine ^a	6.25–12.5 mg/day	25 mg/day	150 mg/day	200 mg/day
*Escitalopram	2.5–5 mg/day	5–10 mg/day	20 mg/day	30 mg/day
**Citalopram ^a	2.5–10 mg/day	10–20 mg/day	40 mg/day	60 mg/day
**Paroxetine ^b	2.5–10 mg/day	10 mg/day	40 mg/day	60 mg/day

^aNo FDA approval for OCD in children.

^{**}No FDA approval for children.

^cConsider EKG monitoring especially if polypharmacy or higher doses.

^bSlow taper upon discontinuation.

Obsessive Compulsive Disorder (OCD) in Children and Adolescents Ages 6 to 17 Years Old Resources

RESOURCES

■ Children/adolescents

- ◆ Obsessive-Compulsive Disorder: The Ultimate Teen Guide (Rompella, 2009)
- ◆ Breaking Free from OCD: A CBT Guide for Young People and Their Families (Derisley, et al., 2008)

■ Parents/caregivers

- ◆ Talking Back to OCD: The Program that Helps Kids and Teens Say “No Way” and Parents Say “Way to Go” (March, 2007)
- ◆ What To Do When Your Child Has Obsessive Compulsive Disorder: Strategies and Solutions (Wagner, 2002)
- ◆ Freeing Your Child from Obsessive Compulsive Disorder (Chansky, 2001)

■ Clinicians

- ◆ Family-Based Treatment for Young Children with OCD: Therapist Guide (Freeman and Marrs Garcia, 2008)
- ◆ Obsessive-Compulsive Disorder and Its Spectrum: A Life-Span Approach (Storch and McKay, 2008)

■ Relevant websites

- ◆ International OCD Foundation, <https://kids.iocdf.org/>
- ◆ Association for Behavioral and Cognitive Therapies, <http://www.abct.org>
- ◆ PANDAS Network, <http://www.pandasnetwork.org/>
- ◆ Beyond OCD, <http://beyondocd.org/>
- ◆ Developmental-Behavioral Pediatrics, www.dbpeds.org
- ◆ Teaching the Tiger – A Handbook for Educators, <http://www.hopepress.com>

Note: Above resources and website links were updated at the time of publication.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Post-Traumatic Stress Disorder (PTSD) in Children and Adolescents

Level 0

Comprehensive assessment includes:

- ◆ Use of standardized measures:
 - ◇ Juvenile Victimization Questionnaire (JVQ)
 - ◇ Trauma History component of the University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI)
- ◆ For specific PTSD symptoms, clinicians may use self-report and parent report measures:
 - ◇ University of California at Los Angeles Posttraumatic Stress Disorder Reaction index for DSM-5.
 - ◇ Child PTSD Symptom Scale for DSM 5

Note: The UCLA-PTSD RI is not available in the public domain. The JVQ is available with permission.

Links to the measures are available at <http://medicaidmentalhealth.org/>.

- ◆ Assessment of ongoing trauma in the context of the environment including history of abuse (physical, sexual, neglect), traumatic life events, domestic violence, economic instability, court involvement, etc.
- ◆ Address all safety concerns (i.e., child abuse), report to the appropriate agencies and/or make any mandated reports based on history.
- ◆ A comprehensive assessment of psychiatric symptoms and co-morbidities, as well as impairment from these symptoms and disorders.
- ◆ Thorough assessment of developmental, medical history, family structure, and parent-child relationship.
- ◆ An assessment of family psychiatric history, including: past and current history of parental psychiatric illnesses, substance abuse and treatment history of parents, parental figures (e.g., step parent), siblings, and other relatives.





Level 1

The greatest level of evidence supports exposure-based therapies, of which Trauma-Focused CBT (TF-CBT) has the most data and is the most widely used.


In children under 6, may consider TF-CBT (4 months) or Child Parent Psychotherapy (CPP) (6 months) as first line treatment.

Consider Medical University of South Carolina (MUSC) online TF-CBT training if TF-CBT trained therapists are not available: <https://tfcbt2.musc.edu/>. The TF-CBT course through Medical University of South Carolina requires a cost per person.

Post-Traumatic Stress Disorder (PTSD) in Children and Adolescents (*continued*)

	<p>Level 2</p> <p>Where TF-CBT is not readily available or after inadequate response to TF-CBT (or CPP in younger children), other psychosocial interventions include:</p> <ul style="list-style-type: none"> ◆ Prolonged Exposure therapy ◆ Cognitive behavioral therapy for PTSD ◆ Eye Movement Desensitization and Reprocessing (EMDR) therapy ◆ KIDNET (A child friendly version of Narrative Exposure Therapy or NET) ◆ Trauma and Grief Components Therapy for Adolescents ◆ Child and Family Traumatic Stress Intervention (Brief PTSD prevention therapy for recent trauma exposure) <p>When oppositional behavior (in younger children) or emotional dysregulation and/or self-harm and suicidal behavior (in adolescents) are prominent and debilitating, consider the following prior to or in conjunction with trauma specific therapies:</p> <ul style="list-style-type: none"> ◆ Young children - Parent Child Interaction Therapy (PCIT) ◆ Adolescents - Dialectical Behavior Therapy (DBT)
	<p>Level 3</p> <p>Re-evaluate and reassess for new or ongoing safety concerns. Refer to <i>Principles of Practice</i> on page 5 for under age 6 and page 8 for 6–17 years old.</p> <ul style="list-style-type: none"> ◆ There no empirical evidence to support the use of psychotherapeutic medications in children 6 years or younger. ◆ For PTSD symptoms that impair sleep (e.g., nightmares, night-time hyperarousal), may consider psychotherapy augmentation at night with prazosin. Start prazosin at 1 mg nightly and titrate by 1 mg every week until target symptoms improve or intolerable side effects emerge, up to a maximum dose of 5 mg nightly. ◆ For persistent intrusive symptoms or increased arousal/reactivity, may consider psychotherapy augmentation with clonidine or guanfacine. ◆ Re-assess diagnosis and refer to specialist if not already done for persistent trauma exposure. ◆ Assess that family has received supportive treatment.

Post-Traumatic Stress Disorder (PTSD) in Children and Adolescents *(continued)*

	Level 4 Fluoxetine and sertraline may be considered for treatment of depression and anxiety symptoms associated with PTSD. These medications do NOT have as robust evidence for treatment of PTSD symptoms in children compared to adults.
Not Recommended: <ul style="list-style-type: none">◆ Benzodiazepines◆ Second generation (i.e., atypical) antipsychotics (SGAs)◆ Two or more agents that reduce sympathetic arousal concurrently (prazosin, guanfacine, clonidine)◆ Use of medications to prevent PTSD in children, due to lack of evidence	

Notes:

1. Not every trauma results in PTSD.

2. No FDA approved medications listed in Level 3. Limited evidence of efficacy for agents listed in Level 3.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Schizophrenia

Level 0

Comprehensive assessment

- ◆ Diagnosis based on:
 - ◇ Symptom presentation
 - ◇ Mental status examination findings (e.g., responding to internal stimuli, bizarre beliefs, disorganized speech)
 - ◇ Course of illness, especially a decline in function or failure to progress
- ◆ Assess potential confounding factors, including any history of significant developmental problems, mood disorders, trauma, or substance abuse.

Helpful clinical tools include:

Structured diagnostic interviews

- ◆ Kiddie-SADS-Present and Lifetime Version (K-SADS-PL)

Symptom questionnaires

- ◆ Brief Psychiatric Rating Scale for Children (BPRS-C)

Links to clinical tools listed above are available at <http://medicaidmentalhealth.org/>.

Schizophrenia (continued)

Level 1

Monotherapy with an antipsychotic agent FDA-approved to treat schizophrenia in adolescents:

- ◆ Risperidone, aripiprazole, quetiapine, lurasidone (ages 13 years and older)
- ◆ Paliperidone (ages 12 years and older)
- ◆ Haloperidol (age 3 years and older), perphenazine, thiothixene (ages 12 years and older)

First-line medication choice is based on side effect profile, patient/family preference and cost.

For all antipsychotic trials, monitor side effects systematically, including:

- ◆ Extrapyramidal side effects
- ◆ Metabolic monitoring per ADA guidelines

Note: Adjunctive agents may be indicated to treat/prevent EPS or metabolic side effects.

A therapeutic trial is generally defined as 4 to 6 weeks with doses up to FDA- approved dosages in adults (with allowances for children < 13 years of age), as tolerated.

If there is no response after two weeks at a therapeutic dose, consider changing to a different agent (see Level 2).

Youth with schizophrenia and their families also need intensive support and case management services, including:

- ◆ Psychoeducational therapies addressing treatment options
- ◆ Safety planning
- ◆ Relapse prevention and adherence challenges
- ◆ Special education and/or vocational programs
- ◆ Resiliency training
- ◆ Refer to first-episode psychosis specialty program if available.

Helpful links:



- ◆ NAVIGATE program: NAVIGATE is a comprehensive program that provides early and effective treatment to individuals who have experienced a first-episode psychosis. For more information, visit <https://navigateconsultants.org/>.
- ◆ National Institute of Mental Health Recovery After an Initial Schizophrenia Episode (RA1SE) Resource page: <https://www.nimh.nih.gov/health/topics/schizophrenia/raise/raise-resources-for-patients-and-families.shtml>

Notes:




1. Olanzapine is FDA approved to treat schizophrenia in adolescents (ages 13 years and older). However, given the risk of metabolic side effects, olanzapine is not recommended as a first-line treatment.
2. Although the traditional neuroleptics, e.g., haloperidol, perphenazine, and thiothixene are FDA approved for use in adolescents, they have not been as well studied as the newer second generation medications in the pediatric population.

Above website links were updated at the time of publication.

Schizophrenia (continued)

	<p>Level 2</p> <p>Monotherapy with alternative drug FDA approved to treat schizophrenia in adolescents (from Level 1 above or olanzapine) if the first agent tried is not effective or poorly tolerated.</p> <p>Continue psychosocial interventions.</p>
	<p>Level 3</p> <p>Monotherapy with alternative drug FDA approved to treat schizophrenia in adolescents (from Level 1 above or olanzapine), or with an antipsychotic FDA approved for adults, but not approved for children and adolescents.</p> <p><u>Notes:</u></p> <ol style="list-style-type: none">1. For nonresponses to second generation agents, consider trial of first generation agent.2. Ziprasidone (Findling et al., 2013) and asenapine (Findling et al., 2015) were not found to be statistically superior to placebo for treating adolescent schizophrenia, and therefore are not recommended for treating schizophrenia in this age group.3. Clozapine is reserved for treatment refractory cases (Refer to Level 5). <p>For patients with treatment failure characterized by ongoing psychotic symptoms exacerbated by noncompliance, psychosocial strategies should be enhanced to address adherence, including developing strategies to better monitor medication administration.</p> <p>Treatment with a long-acting depot antipsychotic agent should be considered as clinically appropriate.</p> <p>Available long-acting agents include risperidone microspheres, paliperidone palmitate, aripiprazole extended-release injectable suspension, haloperidol decanoate, fluphenazine decanoate. None of these agents are FDA approved for use in youth.</p> <p><u>Note:</u> Olanzapine pamoate (Zyprexa Relprevv) is a long-acting agent that has been linked with a potentially life-threatening post injection syndrome. Use with children and adolescents is not FDA approved and is NOT recommended. For more information, visit http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm357601.htm.</p> <p>Above website link was updated at the time of publication.</p>

Schizophrenia (continued)

	Level 4 Using a single antipsychotic, adjunctive treatment with a mood stabilizer or an antidepressant may be considered to target comorbid mood symptoms, aggression, or negative symptoms. Continue psychosocial interventions.
	Level 5 Clozapine trial for treatment refractory schizophrenia. <i>Notes:</i> <ol style="list-style-type: none">1. Treatment refractory defined as failing at least two therapeutic trials of an antipsychotic agent.2. Clozapine can only be prescribed through the Clozapine Risk Evaluation and Mitigation Strategy (REMS) program, www.clozapinerems.com.
	Level 6 For patients that have failed to respond to multiple different antipsychotics, diagnostic reevaluation and consultation are indicated. Electroconvulsive therapy (ECT) may be considered for adolescents with schizophrenia who do not adequately respond to or cannot tolerate antipsychotic medications, or those suffering from catatonia.

For a full list of references, visit <http://medicaidmentalhealth.org/>.

Schizophrenia (continued)





Table 13.

Dosing Recommendations for Treatment of Schizophrenia in Children and Adolescents			
Medication	Starting Dose	Maximum Dose	FDA Approved Age Range
Haloperidol*	3–12 years: 0.05-0.15 mg/kg/day in divided doses two to three times daily >12 years: 0.5-2 mg/day in divided doses two to three times daily	3–12 years: 0.15 mg/kg/day in divided doses >12 years: 20 mg/day**	Ages 3 and older
Aripiprazole*	2–5 mg/day	10 mg/day	13–17 years old
Lurasidone	40 mg/day	80 mg/day	13–17 years old
Olanzapine*	2.5–5 mg/day	10 mg/day	13–17 years old
Paliperidone*	3 mg/day	12 mg/day	12–17 years old
Quetiapine	25 mg twice per day	800 mg/day	13–17 years old
Risperidone*	0.5 mg/day	6 mg/day	13–17 years old

* Medications indicated with an asterisk (*) are available in long-acting injectable (LAI) formulations. Paliperidone LAI requires trial of oral risperidone prior to initiation of LAI. Most aripiprazole LAI formulations require trial of oral aripiprazole prior to initiation of LAI.

**Please note: the printed version of these guidelines list the haloperidol maximum dose for >12 years at 100 mg/day. The FDA maximum for haloperidol is 100 mg/day, but doses over 20 mg/day are not generally recommended in children and adolescents unless benefits clearly outweigh risks.

Tic Disorders in Children and Adolescents Ages 6 to 17 Years Old

Level 0	<p>Comprehensive assessment. Assess course (age of onset, types of tics, tic frequency, alleviating and aggravating factors), duration, and severity. Careful assessment that attends to issues of social (bullying), educational (reading impairment), physical impairment (pain due to tics) as well as complicating comorbidity. Review for most common comorbid presentations: ADHD, separation anxiety, OCD, ASD. Health status: Infections (especially group A streptococcus, Mycoplasma, Influenza, Cytomegalovirus), endocrine disorders, autoimmune disorders and genetic disorders associated with OCD/tics; Secondary to substances or medications: stimulants, SSRIs lamotrigine. Family history (for OCD, tics, autoimmunity).</p> <ul style="list-style-type: none"> ◆ If tics are not causing impairment or pain, educate but no treatment is necessary. ◆ Specialty referral as appropriate—child psychiatry, developmental pediatrics or neurology or, for therapy: habit reversal therapy (HRT) or comprehensive behavioral intervention for tics (CBIT).
	<p>Level 1</p> <p>Mild-moderate impairment, secondary to tics, use HRT or CBIT if possible (check www.tourette.org for trained therapists).</p>
	<p>Level 2</p> <ul style="list-style-type: none"> ◆ 2a. If ADHD is present, consider alpha-2 agonist (clonidine or guanfacine). ◆ 2b. If no-comorbid ADHD, aripiprazole or risperidone in low doses.
	<p>Level 3</p> <p>Trial of medication not already used at Level 1 or Level 2 such as haloperidol, pimozide (there are dosing, drug interaction safety, and QTc concerns with this agent), topiramate, or fluphenazine.</p>
	<p>Level 4</p> <p>Antipsychotic in combination with SSRI, clonazepam, alpha-2 agonists, or topiramate depending on target symptoms. Severity of illness should drive the use of one or two agents. For dangerous tics (e.g., whiplash tic) refer to psychiatry or neurology for consideration of Botulinum toxin A treatment.</p>

Tic Disorders in Children and Adolescents Ages 6 to 17 Years Old *(continued)*

Table 14.

Medications Used in the Treatment of Tics: Level of Evidence and Dosing Recommendations			
Level of Evidence	Drug Name	Starting Dose (mg)	Usual Dose (mg/day)
A	Clonidine ¹	0.025–0.05 mg	0.05–0.40 mg/day
	Guanfacine ¹	0.5–1.0 mg	1.0–4.0 mg/day
	Risperidone	0.125–0.50 mg	0.75–3.0 mg/day
	*Aripiprazole	1.0–2.5 mg	2–5 mg/day
	*Haloperidol	0.25–0.5 mg	1–4 mg/day
	*Pimozide ^{2,3}	0.5–1.0 mg	2–8 mg/day
B	Ziprasidone ²	20 mg	20–40 mg/day
	Olanzapine	2.5–5.0 mg	2.5–12.5 mg/day
	Quetiapine	25 mg	25–200 mg/day
	Fluphenazine	0.5–1.0 mg	1.5–10 mg/day
C	Topiramate	12.5 mg	12.5–150 mg/day

*FDA approval for Tourette's syndrome

¹Likely most efficacious when used in ADHD+tics

²EKG monitoring

³CYP2D6 testing for doses above 0.05mg/kg/day (or 4mg)

HIERARCHICAL APPROACH IN PHARMACOTHERAPY FOR TICS

- Mild tics: No medication treatment
- Moderate tics: Alpha-2 agonists, Atypical neuroleptics (e.g., aripiprazole, risperidone)
- Severe tics: Atypical neuroleptics, Typical neuroleptics (e.g., pimozide, haloperidol, fluphenazine)

PATIENT CHARACTERISTICS BEST SUITED FOR TIC BEHAVIORAL THERAPY

- No severe ADHD
- No substance abuse
- No severe oppositionality
- Stable family environment
- No severe anxiety or mood disturbance
- Age ≥ 9 years (but some success with motivated younger patients)

Tic Disorders in Children and Adolescents Ages 6 to 17 Years Old (continued)

Tic Disorders and ADHD

- Treat the ADHD conservatively
- Tics are not universally worse on stimulant (Bloch et al. 2009; Pringsheim and Steeves 2011; Cohen et al 2015)
- Alpha-2 agonists show better improvement in tic severity if ADHD is comorbid (Bloch et al. 2009)

SSRIs and Dopamine-2 Blockers in Patients with Tics and OCD

- In many patients with tics and OCD, combination pharmacotherapy is required (e.g., D2 blockers and SSRIs).
- There are almost no combination therapy trials in children with OCD/tics.
- Most data exist for risperidone and aripiprazole (low doses, i.e., much lower than those used in psychotic or bipolar disorders).

Resources

- Children
 - ◆ Matthew and the Tics – A Story for Young Children, available at: <https://www.tourette.org/resource/matthew-tics-story-young-children/>
 - ◆ Teens and Tourette’s syndrome, available at: <https://www.tourette.org/about-tourette/overview/living-tourette-syndrome/teens-13-19/>
- Parents/caregivers
 - ◆ Managing Tourette Syndrome: A Behavioral Intervention Workbook, Parent Workbook (Woods, et al. 2008)
 - ◆ A Family’s Guide to Tourette Syndrome (edited by Walkup, et al. 2012)
- Clinicians
 - ◆ Treating Tourette Syndrome and Tic Disorders: A Guide for Practitioners (edited by Woods, Piacentini and Walkup, 2007)
 - ◆ Managing Tourette Syndrome: A Behavioral Intervention for Children and Adults, Therapist Guide (Woods, et al. 2008)
- Relevant websites
 - ◆ Tourette Association of America, <https://www.tourette.org/>
 - ◆ American Academy of Child and Adolescent Psychiatry (AACAP) Tic Practice Parameters: [http://www.jaacap.com/article/S0890-8567\(13\)00695-3/pdf](http://www.jaacap.com/article/S0890-8567(13)00695-3/pdf)
 - ◆ Association for Behavioral and Cognitive Therapies, <http://www.abct.org/Home/>
 - ◆ Pediatric Autoimmune Neuropsychiatric Disorders (PANDAS) Network, <http://www.pandasnetwork.org/>
 - ◆ Developmental-Behavioral Pediatrics, www.dbped.org
 - ◆ Teaching the Tiger – A Handbook for Educators, <http://www.hopepress.com>

Note: Above resources and website links were updated at the time of publication.

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Florida Pediatric Psychiatry Hotline

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No registration required.

The Florida Pediatric Psychiatry Hotline provides timely telephonic psychiatric and clinical guidance to primary care clinicians treating children with behavioral health conditions. The hotline enables primary care clinicians to get assistance for any child under their care and is highly rated by those using the service.

The Florida Pediatric Psychiatry Hotline is operated by the University of South Florida Division of Child and Adolescent Psychiatry and the Rothman Center for Neuropsychiatry in St. Petersburg, Florida. Tanya Murphy, MD., Maurice A. and Thelma P. Rothman Chair of Developmental Pediatrics and Professor in the Departments of Pediatrics and Psychiatry, and a team of certified child psychiatrists from the University of South Florida oversee the hotline and provide many of the consultations.

The goals of the Pediatric Psychiatry Hotline are to:

- Provide consultation about psychotherapeutic medications for children with behavioral health conditions.
- Facilitate a referral to a child psychiatrist or psychiatric ARNP when possible.
- Promote a collaborative relationship between primary care clinicians and child psychiatrists.

About the service:

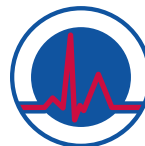
- The hotline is free and related to consultation about medication management.
- Calls will be answered on non-holiday weekdays between 8:30 am and 4:30 pm.
- Most calls will be scheduled with a child psychiatrist within 1 to 4 hours.
- Telephone consultations are limited to 20 minutes per call.
- Only information relevant to medication management will be discussed. No patient names or other unique identifying information needs to be provided.



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- Best Practice Psychotherapeutic Medication Guidelines for Adults
- Monitoring Physical Health and Side-Effects of Psychotherapeutic Medications in Adults and Children: An Integrated Approach
- Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents

The Florida Pediatric Psychiatry Hotline is a free service that provides consultation about medication management.

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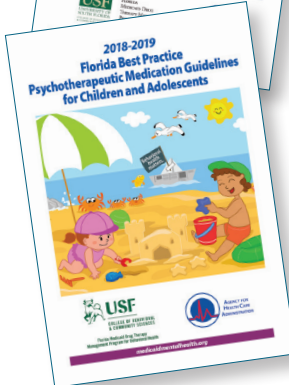
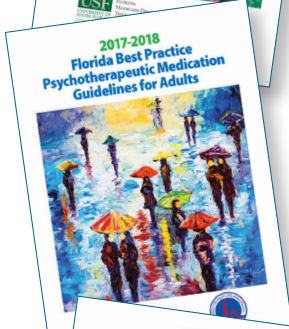


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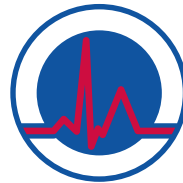
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