2022-2023
Florida Best Practice Psychotherapeutic Medication Guidelines for Children and Adolescents

UNIVERSITY of SOUTH FLORIDA
College of Behavioral & Community Sciences
Florida Center for Behavioral Health Improvements and Solutions

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Introduction

Current trends indicate an increase in the number of children and adolescents dealing with behavioral health conditions. Between 2016 and 2020, the number of children ages 3-17 with anxiety increased by 29%, and those with depression increased by 27% (Lebrun-Harris, et al., 2022). Studies have also 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, a condition that has been further exacerbated by the COVID-19 pandemic. 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 2030, "Social Determinants of Health," 2022). A recent study found that the prevalence of behavioral health conditions in children and adolescents ranged from 15% to 60%, with the higher rates reported among individuals exposed to social or relational health risk factors such as economic hardship, food insecurity, substance use or domestic violence, and poor caregiver mental health (Bethell, et al., 2022). 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 ***2022-2023 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

The Florida Center for Behavioral Health Improvements and Solutions conveyed a 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 2022 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 2022 Expert Panel met virtually on April 2, 2022 to review and update the previous version of the Florida Best Practice Psychotherapeutic Medication Guidelines, which was published after the last consensus meeting in November 2018. For each condition, a child and adolescent psychiatrist who is a nationally recognized content expert conducted a full review, 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 ***https://www.floridabhcenter.org/***. Financial disclosures are available upon request.

Organization

The ***2022-2023 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 judgment 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-R/F)
- 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: ***https://floridabhcenter.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.
- Assessment of suicidal thinking and behavior (suicidality).
- 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.*

Level 1

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.

- 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.

Level 2

If medications are being considered, first reassess the diagnosis and diagnostic formulation.

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.

If a decision is made to initiate medication:

- 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.
- Assessment of suicidal thinking and behavior (suicidality).
- 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.

Additional Considerations:

- Once medications are initiated, continue routine monitoring for medication benefits and side-effects.
- If medication is no longer beneficial, consider deprescribing (refer to page 11 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: Maximum dose:	0.125 mg/day 1.5 mg/day
Aripiprazole	Starting dose: Maximum dose:	1 mg/day 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: ***https://floridabhcenter.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 are necessary to establish a correct diagnosis on which to base treatment decisions.
- Assessment of suicidal thinking and behavior (suicidality).
- 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.*

Level 1

Start with psychosocial treatment. Parental involvement is essential, with involvement of other caregivers or school-based interventions as needed.

- 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.

Level 2

If medications are being considered, first reassess the diagnosis and diagnostic formulation. Weigh the risks and benefits of initiating treatment with psychotherapeutic medications.

If a decision is made to initiate medication:

- Initiate with monotherapy. Start low, go slow.
- Except in rare cases, use monotherapy.
- Continue psychosocial treatment during treatment with medication.
- Monitor for suicidality (suicidal thinking and behavior).
- 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.

Additional Considerations:

- 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 11 for deprescribing recommendations). Monitor for symptom exacerbation.
- Consider a trauma-informed treatment approach as appropriate.
- 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.

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

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 ***https://floridabhcenter.org/***.

Metabolic Syndrome, Prediabetes, and Type 2 Diabetes Mellitus

- Monitor for metabolic syndrome, prediabetes, and Type 2 Diabetes Mellitus (DM) when prescribing atypical antipsychotics.
- Regularly review the continued need for antipsychotic medication and consider discontinuation, if appropriate.
- 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

- There are various criteria for the diagnosis of metabolic syndrome. According to the International Diabetes Federation (IDF), 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) or previously diagnosed type 2 diabetes
  - Fasting triglycerides ≥150 mg/dL
  - HDL <40 mg/dL
  - Previous diagnosis of Type 2 Diabetes

- Prediabetes Diagnosis:
  - Fasting glucose from 100-125 mg/dL

  OR
  - Hemoglobin A1c between 5.7% and 6.4%
- Monitor for prediabetes and Type 2 Diabetes Mellitus (DM) in all children <18 years who are overweight or obese 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 (acathnosis 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.*
- *Obese is defined as BMI > 95th percentile for age and sex*
- *The American Diabetes 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 Diabetes Association and American Psychiatric Association recommend metabolic monitoring as noted in Table 2 below.*
- *If metabolic abnormalities are present, refer to the primary care physician for further evaluation/treatment and integrate care.*

Table 2.

American Diabetes Association/American Psychiatric Association Guidelines for Metabolic Monitoring in Recipients of Antipsychotic Medications

	Monitoring Frequency						
Parameter	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.*

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 ≥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 ***https://floridabhcenter.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
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, including clearly defined treatment expectations and treatment preference assessment. Rule out medical issues such as hearing loss and consider co-morbid developmental language disorder, Specific Learning Disorder or Autism Spectrum Disorder (ASD).

Facilitate family engagement and psychoeducation about ADHD (evidence-based behavioral interventions, educational interventions, and medication treatments).

Level 1

Provide evidence-based parent management/skills training or other behavioral intervention at home and/or school for a minimum of 12 weeks. In areas where such treatments are unavailable, weigh risks of starting medications against harm of delaying treatment.

If medications are used, response should be monitored using rating scales and appropriate health and safety assessments. Refer to General Principles of Practice Regarding the Use of Psychotropic Medications in Children under Age 6 on page 3. Use preschool dosing guidance and lowest efficacious dose. In particular, closely monitor height, weight and appetite to determine need for weight recovery interventions. Periodically assess continued benefit from medication administration.

Level 2

Initiate monotherapy with immediate-release methylphenidate (MPH) formulation.

Level 3

If MPH is successful, could consider switching to extended release MPH medication.

Level 4

If MPH is unsuccessful, and/or not tolerated, consider immediate-release amphetamine formulations which have FDA indication for ages 3 to 5 years old (limited clinical trial evidence base).

- Consider lisdexamfetamine, which has emerging clinical trial evidence.
- May consider atomoxetine, which does not have FDA indication, but clinical trial efficacy and safety data.
- May also consider alpha-2 agonists, but published data for ADHD are sparse.

Not Recommended:

- Immediate selection of long-acting stimulant preparations for preschoolers, prior to assessing stimulant response.
- Selection of extra-long duration stimulants (e.g., Mydayis® or Adhansia®)
- Antipsychotic medication to treat core symptoms of ADHD.
- Routine concurrent use of two or more alpha-2 agonists; this should be reserved for specific clinical indications, closely monitored for side effects, and maximum dose ranges need to account for additive effects.

Table 3.

ADHD Medication Treatment for Children under Age 6	
Drug Name	**Starting Dose Recommendation**
Methylphenidate and Amphetamine preparations	
Short-acting	
Methylphenidate[1] *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. *Recommendations extrapolated from the Preschool ADHD Treatment Study (PATS).*
Methylphenidate[2] *Extended Release:* Aptensio XR®	10 mg/day – titrate as needed to doses not exceeding 1.5 mg/kg/day. *Recommendations extrapolated from the Childress et al. 2020 MPH-MLR Study.*
Amphetamine[3] *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. *Amphetamine target dose is generally one-half to two-thirds of methylphenidate dose.*
Amphetamine[4] *Extended Release:* Lisdexamfetamine (Vyvanse®)	5 mg/day – titrate as needed to doses not exceeding 30mg/day. *Recommendations extrapolated from the Childress et al. 2020 LDX study*
Selective norepinephrine inhibitor	
Atomoxetine[5] (Strattera®)	10 mg/day – titrate as needed to doses not to exceed 1.4 mg/kg/day. *Recommendations extrapolated from the Kratochvil et al. 2011 study.*
Alpha-2 Agonists[6]	
Clonidine (Catapres®, KAPVAY®) Guanfacine (Tenex®, Intuniv®)	Starting dose not to exceed: 0.05 mg/day *(clonidine)* 0.5 mg/day *(guanfacine)* Monitor carefully for excessive sedation, increased irritability. *Recommendations based on expert opinion.*

There are limited new data on use of amphetamines and extended-release stimulants in preschoolers, with more in the pipeline for inclusion in future guideline updates.

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

[2] No FDA indication for children younger than 6 years old; based on MPH-MLR Study results (Childress et al., 2020).

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

[4] FDA indication for ADHD treatment of children 6 years and older, limited clinical trial study results available.

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

[6] No FDA indication for ADHD except guanfacine extended-release (Intuniv®) and clonidine extended-release (KAPAVY®) in children 6 years and older; limited clinical trial study results available for guanfacine use for ADHD in children below age 6 years old.

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 and assess treatment preference.

Recommended rating scales:

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

Links to rating scales available at ***https://floridabhcenter.org/***.

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

Ensure that treatment response is monitored using rating scales and appropriate health and safety assessments. In particular, closely monitor height, weight and appetite to determine need for weight recovery interventions, and periodically monitor pulse and blood pressure. Periodically assess continued benefit from medication administration.

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 17-20. If supplementation of extended-release with immediate-release psychostimulant required for sufficient coverage, stay within same drug class.

Level 2

- Combination of extended-release alpha-2 agonist with psychostimulant, OR
- Extended-release alpha-2 agonist monotherapy, OR
- Atomoxetine or Viloxazine monotherapy.

Level 3

Immediate-release alpha-2 agonist (as ADHD 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, or venlafaxine. Despite limited evidence, these medications may be considered if patients cannot tolerate or fail first-line medications.

Desipramine is not recommended due to safety concerns.

Not Recommended:

- Antipsychotic medication to treat core symptoms of ADHD.
- Routine concurrent use of two or more alpha-2 agonists; this should be reserved for specific clinical indications, closely monitored for side effects, and maximum dose ranges need to account for additive effects.
- Concurrent use of two different stimulant classes.

Other Treatment Considerations

- Two newly FDA-approved devices for ADHD treatment are available, the Monarch e-TNS system and the EndeavorRX video game. To date, insufficient long-term efficacy and safety evidence available to include either one in the 2022-2023 treatment guidelines; however, for individual patients and their families, these treatment options may be considered. The Monarch e-TNS does not get combined with ADHD medication treatment, whereas the EndeavorRX video game is designed to be part of comprehensive treatment plan, including medications.
- Omega-3 fatty acid supplementation has shown inconsistent evidence in treating ADHD and is not included in current national guidelines. However, in recent meta-analyses, very small to medium size improvements of ADHD symptoms were reported, and omega-3 supplementation may be considered on individual patient basis (500-1000mg for prepubetal children and 1,000-1,500mg for adolescents).

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 and Dexmethylphenidate preparations				
Immediate Release/ Short Duration (~3-4 hours)				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. Administer 30-45 minutes before meals with last dose given prior to 6 PM.
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	
Extended Release/ Intermediate Duration (~6-8 hours)				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	
Notes: *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.*				

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/ Long Duration (up to 12 hours)				
Aptensio XR® (methylphenidate hcl extended-release capsule)	10 mg qam then titrate by 10 mg at weekly intervals	60 mg	>50 kg: 100 mg	May be administered without regards to meals. Conversion between most MPH products: discontinue existing product and then titrate new product - do not substitute on mg-per-mg basis. 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. 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. A 27 mg tablet is available if a dosage between 18 to 36 mg is desired. Apply Daytrana® patch 2 hours before effect is needed; may remove 9 hours after application, or sooner if shorter duration of action is desired. Qillivant XR® is an extended-release once-daily suspension. QuilliChew ER® can be broken in half.
AzstarysTM (serdexmethylphenidate/ dexmethylphenidate)	39.2 mg ser-d-MPH/ 7.8 mg d-MPH (equivalent to 20mg d-MPH) once daily in the morning, then titrate up/down in weekly increments	52.3/10.4mg ser-d-MPH/ d-MPH	Not yet known	
Cotempla XR-ODT® (methylphenidate tablet, orally disintegrating)	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; may titrate by 18 mg weekly	6-12 years: 54 mg >12 years: 72 mg	>50 kg: 108 mg	
Daytrana® patch (methylphenidate transdermal system)	10 mg patch daily in the morning, then titrate up 5 mg weekly	30 mg	Not yet known	
Focalin XR® (dexmethylphenidate hcl extended-release capsule)	5 mg qam	30 mg	50 mg	
Jornay PM® (methylphenidate HCl extended-release capsule)	20 mg in evening	100 mg	Not yet known	
Quillivant XR® (methylphenidate hcl extended-release oral suspension)	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)	20 mg qam then titrate in increments of 10 mg, 15 mg or 20 mg at weekly intervals	60 mg	>50 kg: 100 mg	

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/ Extra Long Duration (up to 16 hours)				Capsules may be opened and sprinkled on soft food for immediate consumption. Beads should not be crushed or chewed. Doses above 70 mg/day increased adverse events disproportionately.
Adhansia XR® (methylphenidate HCl extended-release capsules)	25 mg qam then titrate by 10 to 15 mg weekly	85 mg in pediatric age group	Not yet known	

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/ Short Duration/ (~3-6 hours)				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®, Evekeo® ODT, and Zenzedi® have the same dosing recommendations.
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® ODT (d- and l amphetamine oral dissolving tablet)	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	

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/ Intermediate Duration (5-10 hours)				Longer acting stimulants offer greater convenience, confidentiality, and compliance with single daily dosing but may have greater problematic effects on evening appetite and sleep. Adderall XR® capsule may be opened and sprinkled on soft foods. 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. For Dyanavel XR® do not substitute for other amphetamine products on mg-per-mg basis. 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®). Capsules may be opened and sprinkled on soft food for immediate consumption. Beads should not be crushed or chewed. Doses higher than 25 mg have not been evaluated in clinical trials in pediatric patients
Dexedrine Spansule® (dextroamphetamine sulfate extended-release capsule)	5-10 mg daily to twice per day	40 mg	Not yet known	
Extended Release/ Long Duration (up to 10-12 hours)				
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	
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	
Dyanavel XR® 2.5 mg/mL (amphetamine extended-release oral suspension)	2.5 to 5 mg daily in the morning	20 mg	Not yet known	
Vyvanse® (lisdexamfetamine capsule)	20-30 mg daily	70 mg	Not yet known	
Vyvanse® (lisdexamfetamine chewables)	20-30 mg daily	70 mg	Not yet known	
Extended Release/ Extra Long Duration (up to 16 hours)				
Mydayis® (mixed amphetamine salts)	For 13 years and older only: 12.5 mg	For 13-17 years: 25 mg	Not yet known	

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 inhibitors				
Qelbree® (viloxazine)	6-11 years: Begin with 100 mg daily, and then titrate in 100 mg increments 12-17 years: Begin with 200 mg daily and then titrate in 100 or 200 mg increments	6-17 years: 400 mg	Not yet known	Not a Schedule II medication. Monitor closely for suicidal thinking and behavior, clinical worsening, or unusual changes in behavior. Monitor for manic symptoms in patients with bipolar disorder. Capsules can be sprinkled, but should not be cut, crushed or chewed.
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 >70 kg: 40 mg/day; may increase to 80 mg daily after a minimum of 3 days	≤ 70 kg: 1.4 mg/kg or 100 mg, whichever is less >70 kg: 100 mg	Lesser of 1.8 mg/kg or 100 mg daily	Not a Schedule II medication. Consider if active substance abuse or severe side effects of stimulants (mood lability, tics). Give qam or equally 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.

Table 6 *(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**
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.

Table 7.

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**
Alpha- adrenergic agonists				
Catapres® (clonidine)	<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. >45 kg: 0.1 mg nightly; titrate in 1 mg increments two times per day, three times per day, or four times per day.	27–40.5 kg: 0.2 mg 40.5–45 kg: 0.3 mg >45 kg: 0.4 mg	0.4 mg/day for ages 5 years and older	The following applies to both alpha-2 adrenergic agonists: - May be used as monotherapy or as adjuvant to another medication class for ADHD - Do not routinely combine different alpha-2 adrenergic agents with each other - Effective for inattention, impulsivity and hyperactivity; modulating mood level; tics worsening from stimulants; sleep disturbances. Taper the daily dose of clonidine by no more than 0.1 mg every 3 to 7 days to avoid rebound hypertension.
Tenex® (guanfacine)	< 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. >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.	27–40.5 kg: 2 mg 40.5–45 kg: 3 mg >45 kg: 4 mg	4 mg/day for ages 7 years and older	May not see effects for 4-6 weeks. Review personal and family cardiovascular history. Consider pre-treatment EKG. Taper the daily dose of guanfacine by no more than 1 mg every 3 to 7 days to avoid rebound hypertension.

Table 7 *(continued).*

ADHD Medications in Children and Adolescents Ages 6 to 17 Years Old			
Generic Class/ Brand Name	**Typical Starting Dose**	**FDA Max Dose/Day**	**Comments**
Antidepressants			
Wellbutrin®† (bupropion)	Lesser of 1.5 - 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	Lowers seizure threshold; contraindicated if current seizure disorder, anorexia nervosa or bulimia nervosa. Usually given in divided doses, b.i.d. for children and adolescents, for both safety and efficacy.
Wellbutrin XL®† (bupropion XL)	Same as above	Lesser of 6 mg/kg/day or 300 mg/day.	Lowers seizure threshold; contraindicated if current seizure disorder, anorexia nervosa or bulimia nervosa. Usually dosed once daily for children and adolescents, for both safety and efficacy.
Tofranil® (imipramine)	1 mg/kg/day in one to three divided doses	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.
Effexor® (venlafaxine)	12.5 mg/day	Not FDA approved for use under age 18 years; literature-derived suggested maximum of the lower of 150mg/day or 3mg/kg/day (Park et al, 2014)	Venlafaxine has limited evidence, but showed some improvements on ADHD rating scales in small randomized clinical trials.

***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. Off-label max doses for immediate release clonidine and guanfacine per Clinical Pharmacology database.*

*** For all antidepressant medications, boxed warnings on suicidality apply.*

†Bupropion and bupropion SR have more data on off-label use than bupropion XL.

For a full list of references, visit ***https://floridabhcenter.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)

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: https://www.mhanational.org/
- 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/
- National Institute of Mental Health—ADHD resource page: https://www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd

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

For a full list of references, visit https://floridabhcenter.org/.

Aggression (Severe) in Children under Age 6

Level 0

Comprehensive diagnostic assessments. Refer to Principles of Practice on page 3. Evaluate and treat comorbid conditions (i.e. medical, other psychiatric conditions).

Level 1

Psychosocial intervention.

- Evidence-based psychotherapeutic interventions such as Parent Management Training (PMT) or Parent-Child Interaction Therapy (PCIT) are the first-line treatment for 3 to 6 months.
- Behavioral therapy contingency management
- Applied Behavioral Analysis (ABA therapy) for youth with Autism Spectrum and/or developmental disabilities.

Level 2

Initial medication treatment should target the primary disorder(s) (when available, follow evidence-based guidelines for primary disorder).

- Optimize treatment of primary disorder first before addressing aggression with other pharmacologic agents.
- Treat comorbid ADHD per guidelines. Refer to page 13.
- Treat comorbid Anxiety Disorders per guidelines. Refer to page 32.
- Treat comorbid Mood Disorders per guidelines. Refer to page 49 for Major Depressive Disorder.

Level 3

In the absence of co-morbid ADHD and presence of severe impairment, severe aggression, or failure of psychosocial treatment:

- Monotherapy with methylphenidate formulation, then amphetamine formulation or low dose alpha-2 agonist.

Level 4

If failure to respond to Level 2 and/or 3, or insufficient response consider:

- Low dose risperidone, aripiprazole.
  - Discontinuation trial after 6 months of any effective medication treatment.

Not Recommended:

- 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 6. Evaluate and treat comorbid conditions (i.e. medical, other psychiatric conditions).

- Consider screening tools for general psychopathology
  - 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
  - Ages 11 to 17 years old: Strengths and Difficulties Questionnaire (SDQ) for youth self-report

Links to screening tools available at ***https://floridabhcenter.org/***.

- Assessing treatment effects and outcomes with standardized measures is highly encouraged.
  - Modified Overt Aggression Scale (MOAS)
  - Affective Reactivity Index (ARI)
  - Emotion Dysregulation Inventory (EDI)
  - Emotional Outburst Inventory (EMO-I)

Links to screening tools available at ***https://floridabhcenter.org/***.

- When acute aggression is present, conduct a risk assessment and, if necessary, consider referral to a psychiatrist or an emergency department for evaluation.
- Assess function of behavior to identify factors that trigger and/or reinforce the behaviors.
- 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 community interventions: Multisystemic therapy
- Cognitive Behavioral Therapy (Trauma-focused CBT if outbursts related to PTSD)
- Dialectical Behavioral Therapy (DBT)
- Family therapy

Level 2

If Level 1 interventions are not successful, re-assess:

Initial medication treatment should target the primary disorder(s) (when available, follow evidence-based guidelines for primary disorder).

- Always treat primary disorder fully first before addressing aggression with other pharmacologic agents.
  - Treat comorbid ADHD per guidelines. Refer to page 15.
  - Treat comorbid Anxiety Disorders per guidelines. Refer to page 33.
  - Treat comorbid Mood Disorders per guidelines. Refer to page 38 for Bipolar Disorder, page 50 for Major Depressive Disorder, and page 43 for Disruptive Mood Dysregulation Disorder
  - Treat comorbid psychotic disorders. Refer to page 62.
- Consider monotherapy with methylphenidate formulation, then amphetamine formulation or alpha-2 agonist, then atomoxetine.
- Consider combination therapy of stimulant with an alpha-2 agonist.

Level 3

If Level 2 interventions are not successful, re-evaluate diagnosis and past interventions.

- 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.
  - Risperidone or aripiprazole are recommended. 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 30. Before changing, make sure that medications have been administered at an appropriate dose and duration and that adequate psychosocial interventions addressing adherence have been implemented. Monitor and manage adverse effects and non-response.

Level 4

If failure to respond to Level 3 or insufficient response, switch to a different antipsychotic (either risperidone or aripiprazole).

Level 5

If failure to respond to risperidone or aripiprazole, consider other antipsychotics for which less evidence exists. Refer to Table 8 on page 30.

- 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.
- Consider monotherapy with a mood stabilizer (lithium or valproate).

Not Recommended:

- The use of two antipsychotics simultaneously (unless during cross-titration or plateau switch).
- Use of Long Acting Intramuscular (IM) formulations of antipsychotics to treat aggression (lack of evidence in the pediatric population).

Table 8.

Treatment of Aggression in Children and Adolescents Ages 6 to 17: Level of Evidence and Dosing Recommendations◊		
Medication	**Children (>6 years)**	**Adolescents (13-17 years)**
†Methylphenidate/ Amphetamines	See ADHD guidelines, page 13.	See ADHD guidelines, page 15.
†Clonidine, Guanfacine, Guanfacine ER	See ADHD guidelines, page 13.	See ADHD guidelines, page 15.
†Atomoxetine	Starting dose: See ADHD guidelines, page 13. Max dose: 1.8 mg/kg for children over 8 years old	Starting dose: See ADHD guidelines, page 15. Max dose: 1.8 mg/kg for children over 8 years old
Risperidone **Not recommended first line due to side effect profile*	Starting dose: 0.1 to 0.25 mg/day Max dose: 2 mg/day	Starting dose: 0.5 mg/day Max dose: 3 mg/day
Aripiprazole **Not recommended first line due to side effect profile*	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 **Not recommended first line due to side effect profile*	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 **Not recommended first line due to side effect profile*	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 **Not recommended first line due to side effect profile*	Starting dose: 25 mg/day Max dose: 200 mg/day	Starting dose: 25 to 50 mg/day Max dose: 400 mg/day
Valproate **Use caution in female population due to side effect profile*	10-15 mg/kg/day in divided doses Blood level: 50-125 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: 50-125 mcg/mL Dose determined by blood level. Max blood level should be 125 mcg/mL

Table 8 *(continued)*.

Treatment of Aggression in Children and Adolescents Ages 6 to 17: Level of Evidence and Dosing Recommendations[◊]		
Medication	**Children (>6 years)**	**Adolescents (13-17 years)**
Olanzapine **Not recommended first or second line due to metabolic side-effects and/or in pts with BMI ≥ 85%*	Starting dose: 1.25 to 2.5 mg/day Max dose: 15 mg/day	Starting dose: 2.5 to 5 mg/day Max dose: 20 mg/day
Quetiapine **Not recommended first line in patients with BMI ≥ 85%*	Starting dose: IR: 12.5 mg twice per day ER: 25 mg once daily Max dose: 400 mg/day	Starting dose: IR: 25 mg twice per day ER: 50 mg once daily Max dose: 600 mg/day
Paliperidone **Limited data below age 12*	Starting dose: 1.5 mg/day Max dose: 6 mg/day	Starting dose: 1.5 to 3 mg/day Max dose: 12 mg/day
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

[◊]mg = 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 ***https://floridabhcenter.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 3.

- Rating scales specifically for young children with anxiety symptoms are limited, but the Preschool Anxiety Scale (parent report) is available at ***https://floridabhcenter.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 boxed 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 3.

Level 3

If fluoxetine is not successful, consider sertraline in combination with concurrent psychotherapy. Start with low dose 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)
- 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 35.

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 ***https://floridabhcenter.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.

Level 2

If moderate to severe anxiety disorder or inadequate response to CBT alone:

- **2a.** Initiate treatment with fluoxetine or sertraline monotherapy or in combination with CBT.
  - Combination therapy with CBT has been shown to be more effective than medication alone.
  - Review boxed warning 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.

Level 3

If moderate to severe anxiety disorder and Levels 1 and 2 are not successful:

- **3a.** Duloxetine monotherapy or in combination with CBT. Monitor height, weight, blood pressure and pulse with duloxetine.
- **3b.** Consider escitalopram monotherapy or in combination with CBT for ages 12-17 years.
- **3c.** Consider fluvoxamine monotherapy or in combination with CBT.
  - Monitor for treatment emergent suicidality and behavioral activation (see above).

Level 4

If Levels 1, 2 and 3 are not successful, then re-assess diagnosis or refer to a specialist.

If Level 3 is not successful, may consider citalopram or venlafaxine in combination with CBT. Monitor for treatment emergent suicidality and behavioral activation. For venlafaxine, monitor height, weight, blood pressure, and pulse.

Not Recommended:

- 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 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 35.

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**
Selective Serotonin Reuptake Inhibitors (SSRIs)			
***Fluoxetine**			
Starting Dose: Maximum Dose:	1-2 mg/day 5-10 mg/day (limited data)	2.5-5 mg/day 40 mg/day	5-10 mg/day 60-80 mg/day
***Sertraline**			
Starting Dose: Maximum Dose:	5-10 mg/day 50-75 mg/day (limited data)	10-12.5 mg/day 100-150 mg/day	25 mg/day 150-200 mg/day
***Fluvoxamine**			
Starting Dose: Maximum Dose:	5 mg/day 50-75 mg/day (limited data)	12.5-25 mg/day 100-200 mg/day	25 mg/day 150-300 mg/day
Escitalopram			
Starting Dose: Maximum Dose:	1-2 mg/day 5-10 mg (limited data)	2.5 mg/day 10-20 mg/day	5 mg/day 20mg/day
Citalopram			
Starting Dose: Maximum Dose:	No data	5 mg/day 20-40 mg/day	10 mg/day 40 mg/day
Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)			
‡*Duloxetine			
Starting Dose: Maximum Dose:	No data	20-30 mg/day 60 mg/day	30 mg/day 120 mg/day
***Venlafaxine**			
Starting Dose: Maximum Dose:	No data	XR: 37.5 mg/day XR: 75-112.5 mg/day (25-39 kg)	XR: 37.5 mg/day XR: 150 mg/day (40-49 kg) XR: 225 mg/day (>50 kg)

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

‡Duloxetine is FDA approved for Generalized Anxiety Disorder in children and adolescents ages 7 years and older.

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

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 tapering 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. Ongoing use of benzodiazepines is not recommended.
- 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 and developing alternative coping skills to reduce substance use.
- Autism spectrum disorders (ASD) and developmental disorders (DD):
  - ✦ Can modify CBT for anxiety disorders co-morbid 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 SSRIs 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.

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*** (Resource Centers; Facts for Families)
  - Anxiety and Depression Association of America (ADAA), ***https://www.adaa.org/***
  - Selective Mutism Group-Child Anxiety Network, ***http://www.selectivemutism.org/***
  - 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 ***https://floridabhcenter.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.

- Bipolar disorder has distinct episodes representing a clear change from usual behavior. DSM 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. The onset of full manic episode generally first occurs between the ages of 15 to 30 years, there is 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 15.
- 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 43; otherwise, treat the primary disorder first and then treat the aggression. Refer to the aggression treatment guidelines on page 28.

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
- Asenapine
- Quetiapine or Quetiapine XR
- Risperidone
- Lithium (FDA approved for ages 7 to 17 years)

For classic mania in adolescents:

- Lithium (FDA approved for ages 7 to 17 years)

For youth with bipolar depression:

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

Level 2

For acute mania or mixed episodes, if there is partial response to a single atypical antipsychotic, augment with lithium.

If monotherapy with atypical antipsychotic listed in Level 1 is not effective:

- **2a.** Switch to monotherapy with another medication as listed in Level 1, (FDA-approved for ages 10 to 17 years; Lithium FDA-approved for ages 7 to 17 years).
- **2b.** Olanzapine monotherapy

For bipolar depression, if lurasidone not effective, switch to olanzapine/fluoxetine combination (FDA approved for ages 10 to 17 years).

Level 3

Re-assess the diagnosis. Refer to specialist.

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].

For bipolar depression, based on adult evidence, consider adjunctive lamotrigine.

Level 4

In adolescents,

- **4a.** Consider clozapine
  For recurrent episodes associated with treatment nonadherence, consider a Long-Acting Intramuscular (IM) formulations of antipsychotics (based on adult literature)
- **4b.** Electroconvulsive therapy (ECT)

Not Recommended:

- Two antipsychotics concurrently (except during cross-tapering).

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 per day. After 3 days, may increase to 5 mg SL twice per day, and after an additional 3 days up to 10 mg SL twice per 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	7-17 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: 50-125 mcg/mL	Dose determined by blood level. Max blood level should be 125 mcg/mL.	Not approved in children or adolescents for bipolar disorder.

Table 10 *(continued)*.

Dosing Recommendations for Atypical Antipsychotics and Mood Stabilizers in Bipolar Disorder			
Drug Name	**Starting Dose**	**Maximum Dose**	**FDA Approved Age Range**
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 in the evening	12 mg/50 mg once daily	10-17 years old
Mixed Episodes			
Aripiprazole	2-5 mg/day	30 mg/day	10-17 years old
Asenapine	2.5 mg sublingual (SL) twice per day. After 3 days, may increase to 5 mg SL twice per day, and after an additional 3 days up to 10 mg SL twice per 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
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
Olanzapine	2.5-5 mg once daily. Titrate weekly by 2.5-5 mg increments.	20 mg/day	13-17 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
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	7-17 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.*

Monitoring

- Refer to *Principles of Practice* on page 6.

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

- Rebound phenomena are defined as primary symptoms that return at greater intensity than prior to drug initiation, or there is a greater risk of relapse when treatment is reduced, switched, or discontinued compared to individuals who did not receive treatment.
- Withdrawal or discontinuation symptoms refer to short-term, transient, reversible symptoms that occur up to 6 weeks after decrease, discontinuation, or switch of psychotherapeutic medications. These symptoms are not present prior to initiating treatment and can be unique to a medication class.
- Differences in receptor binding and receptor binding affinity may affect the emergence of side effects, rebound, and withdrawal phenomena when medications are changed or discontinued.
- Differences in medication half-lives may also affect emergence of withdrawal or discontinuation symptoms. Withdrawal phenomena may be more likely to occur when discontinuing a short half-life medication compared to one with a longer half-life.
- Insufficient efficacy or increased side effects may occur when a medication metabolized by cytochrome P450 liver enzymes is paired with another medication that affects the same P450 enzymes.
- Taper medications cautiously to minimize the risk of withdrawal symptoms or symptom relapse.

For a full list of references, visit ***https://floridabhcenter.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.

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 ADHD Diagnostic Rating Scale (VADRS) and Swanson, Nolan and Pelham Teacher and Parent Rating Scale (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 ***https://floridabhcenter.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.

Level 1

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.

- ✦ **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.
  - ✧ 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.

→	**Level 2** 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 30 for dosing recommendations for aggression. Consider referral to a specialist.
Not Recommended: Use of medications alone.	

For a full list of references, visit ***https://floridabhcenter.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 ***https://floridabhcenter.org/***.
- Sleep practices (e.g., electronics 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 ***https://floridabhcenter.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

Level 2

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. *Consider recommending the use of pharmaceutical grade melatonin; refer to US Pharmacopeia available online.*

Note: 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. 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.

Table 11.

Medications for the Treatment of Insomnia in Children and Adolescents

Medication*	Starting Dose	Titration	Discontinuation
Melatonin	*Note on typical hypnotic dose of melatonin:* Children <2: No data available Children 2 years and older: 0.5 to 1 mg nightly Adolescents: 1 to 3 mg nightly	Up to a maximum dose of 3 mg nightly in children Up to maximum dose of 10 mg nightly in adolescents	As clinically appropriate
Clonidine	0.05 mg nightly	0.05 mg per week up to 0.3 mg nightly	0.05 mg every 3 days
Diphenhydramine	Children 2 years and older: 12.5 mg nightly Adolescents: 25-50 mg nightly	Up to 50 mg nightly in children Up to 100 mg nightly in adolescents	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.

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 ***https://floridabhcenter.org/***.

Major Depressive Disorder (MDD) in Children under Age 6

Level 0

Comprehensive assessment. Refer to *Principles of Practice* on page 3.

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 3.

Level 3

If depression is severe, and 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):
  - Patient Health Questionnaire-9 (PHQ-9)
  - Short Mood and Feelings Questionnaire (SMFQ)
  - Pediatric Symptom Checklist (PSC)

  Note: The above scales are available at ***https://floridabhcenter.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 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 use.
- Consider and rule out presence of bipolar depression. Assess for: 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 a prepubertal child.
- Track outcomes using empirically validated tools. Refer to DSM-5 Severity Measure for Depression, Child Age 11-17 and Child Depression Inventory (CDI) available at ***https://floridabhcenter.org/.***

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

Level 0 (continued)

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.

Level 2

Reassess diagnosis first (e.g., bipolar disorder), rule out psychostimulant or substance use 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.

- **2a.** Fluoxetine or combination of CBT or IPT psychotherapy with fluoxetine.
- **2b.** May consider use of escitalopram for age 12 years and above.

Qualifiers:

- **Mild:** Begin with 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 combined with fluoxetine for depression; treat the comorbid disorder.
- **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.

Level 3

Inadequate response

- If no clinical response to the medication utilized in Level 2, switch to monotherapy with another medication listed above.

Level 4

Poor or non-response

- 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.

Level 5

If poor or non-response to Level 4 interventions

- **5a.**
  - 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).
- **5b.**
  - If psychotic/severe: ECT (for adolescents).

Notes:

- Factors favoring maintenance treatment (at any Level):
  - 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.
- **Transcranial Magnetic Stimulation (rTMS):** Research in children and adolescents is lacking. One randomized controlled trial comparing active TMS with sham TMS did not show statistically significant benefit. Several case reports and open-label studies suggest that rTMS could reduce adolescent depressive symptoms. The current evidence does not support use of rTMS in routine psychiatric clinical practice.

	Level 5 (continued) ***Notes:*** ✦ **Esketamine:** Emerging evidence suggests that esketamine may be beneficial, but randomized controlled trials are needed. Insufficient long-term efficacy and safety evidence is available to support the use of esketamine currently. ✦ **Ketamine:** Few studies utilizing ketamine in youth populations exist. One small, randomized placebo-controlled trial of intravenous ketamine in adolescents suggests significant short-term efficacy. Insufficient long-term efficacy and safety evidence is currently available to support the use of ketamine. ✦ **Cannabadiol (CBD):** Currently, there are no studies to support use of CBD in clinical practice for MDD. ✦ **Pharmacogenomic testing:** The current evidence does not support pharmacogenomic testing in routine psychiatric clinical practice. For a full list of references, visit ***https://floridabhcenter.org/***

Additional Clinical Information

- ✦ May titrate to lowest therapeutic dose once weekly.
- ✦ After reaching the lowest therapeutic dose, can increase dose after three weeks 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.

Persistent Depressive Disorder

- ✦ Few studies are available to inform the use of antidepressant medication in children and adolescents with persistent depressive disorder.
- ✦ Consider fluoxetine or escitalopram as first-line medications.

Major Depressive Disorder comorbid with Anxiety Disorder(s)

- ✦ Co-occurring depression and anxiety are common in clinical populations of children and adolescents.
- ✦ Children and adolescents with MDD and comorbid anxiety disorder tend to have greater symptom severity and less robust medication response compared with those who have either alone.
- ✦ Consider fluoxetine as first-line medication.

Medications for the Treatment of Major Depressive Disorder

Clinicians should realize that data below age 6 for treating major depressive disorder is extremely limited. Caution in using pharmacological treatment below age 6 is warranted.

Table 12.

Medications for the Treatment of Major Depressive Disorder				
Drug Name	**Young Child (4-5 Years)**	**Child (6-12 Years)**	**Adolescent**	**Comments**
***Fluoxetine**				
Starting Dose: Maximum Dose:	2.5 mg/day 5 mg/day (limited data)	2.5-5 mg/day 40 mg/day	10-20 mg/day 60 mg/day	May divide daily dose into two doses (e.g., morning and noon) if the dosage is 20 mg/day or more.
***Escitalopram**				
Starting Dose: Maximum Dose:		2.5-5 mg/day 10–20 mg/day	5-10 mg/day 20 mg/day	May titrate by 5mg every three to four weeks as needed.
Sertraline				
Starting Dose: Maximum Dose:		12.5 mg/day 100-150 mg/day	25 mg/day 150-200 mg/day	Titrate gradually by 12.5 to 25 mg/day every four weeks; a more rapid titration by 25 mg to 50 mg/day every one to two weeks has been reported in some studies.
Citalopram				
Starting Dose: Maximum Dose:		5 mg/day 20-40 mg/day	10 mg/day 40 mg/day	Gradual titration by 10 mg/day every four weeks is recommended; however, some studies have reported titration as often as every week. The FDA has issued warnings that citalopram causes dose-dependent QT interval prolongation that can lead to arrhythmias.
Venlafaxine				
Starting Dose: Maximum Dose:		XR: 37.5 mg/day XR: 75-112.5 mg/day (25-39 kg)	XR: 37.5 mg/day XR: 150 mg/day (40-49 kg) 225 mg/day (≥50 kg)	May titrate by 37.5 mg/day weekly Caution due to robust evidence of a significantly increased risk for suicidal behavior or ideation.

Medications for the Treatment of Major Depressive Disorder				
Drug Name	**Young Child (4-5 Years)**	**Child (6-12 Years)**	**Adolescent**	**Comments**
Bupropion				
Starting Dose: Maximum Dose:		IR: 75 mg/day (in divided doses) SR: 100 mg/day XL: 150 mg/day IR: 250-300 mg/day (divided dose) SR: 300-400 mg/day (divided dose) XL: 300 mg/day	IR: 75 mg/day (in divided doses) SR:100 mg/day XL: 150 mg/day IR: 250-300 mg/day (divided doses) SR: 300-400 mg/day (divided dose) XL: 450 mg/day	IR: May titrate every one to two weeks. SR: Age group at least 11 years old. Start 100 mg as a morning dose. Do not exceed 150 mg/dose as a single dose. May titrate every two to three weeks as needed. XL: Age group: At least 12 years of age. Due to dose-related risk of seizures, gradually titrate. When discontinuing treatment, doses of 300 mg/day or more should be tapered to 150 mg/day prior to discontinuation. Dosing conversions between IR, SR, XL products: Convert using same total daily dose (up to the maximum recommended dose for a given dosage form), but adjust frequency: IR (2-3 times/day), SR (twice daily), XL (once daily).

**Indicates FDA approved indication for MDD: fluoxetine 8 years and older; escitalopram 12+ years and older.*

Note: The FDA does not currently provide any dosing guidelines for the treatment of MDD in children under the age of 6 years. The FDA also does not currently provide any dosing guidelines for the treatment of MDD in children 6-11 years old for escitalopram and children and adolescents for sertraline, citalopram, venlafaxine and bupropion.

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)
  - HelpGuide: Parent's Guide to Teen Depression ***https://www.helpguide.org/articles/depression/parents-guide-to-teen-depression.htm***
- **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/Depression_Resource_Center.aspx***
  - National Institute of Mental Health—Teen Depression: More Than Just Moodiness: ***https://www.nimh.nih.gov/health/publications/teen-depression***
  - 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: ***https://www.dbsalliance.org/***
  - Teen Mental Health Website: ***http://teenmentalhealth.org/care/parents/***
  - UpToDate–Patient education: Depression in children and adolescents (Beyond the Basics): ***https://www.uptodate.com/contents/depression-in-children-and-adolescents-beyond-the-basics#!***

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

For a full list of references, visit ***https://floridabhcenter.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)

Screening tools/rating scales

- Self-Report measures (adult scales, none in children)
  - Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)
  - Obsessive Compulsive Inventory – Revised (OCI-R)
  - Florida Obsessive-Compulsive Inventory
  - Dimensional Obsessive-Compulsive scale
- The Anxiety and Depression Association of America has a screening tool available: ***https://adaa.org/*** screening-obsessive-compulsive-disorder-ocd
- Clinician rated:
  - MINI-Kid
  - CY-BOCS
  - Anxiety Disorders Interview Schedule – Child (ADIS-C)

Links to the measures are available at ***https://floridabhcenter.org/***.

Note: The MINI-Kid, CY-BOCS, and ADIS-C are not available in the public domain.

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 (ERP), CBT+ERP) with qualified therapist.
- **1b.** If moderate to severe OCD, start with combination of behavioral therapy (CBT + ERP) and an FDA approved monotherapy with an SSRI such as sertraline (6+ years and older), fluoxetine (7+ years and older) or fluvoxamine (8+ years and older).

Level 2

- **2a.** If mild to moderate OCD with an inadequate response to CBT alone (at least 15 sessions), add monotherapy with an FDA 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 monotherapy with another FDA approved SSRI.

Level 3

- **3a.** If inadequate response after 10 to 12 weeks of optimized SSRI dosing, utilize another approved SSRI or consider clomipramine monotherapy (10+ years and older).
- **3b.** Consider other non-FDA approved SSRI (e.g., escitalopram).

Level 4

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).

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., SSRI+alpha-2 agonist/D2 blockers). Refer to tic guidelines available at ***https://floridabhcenter.org/***.

Table 13.

Medications for the Treatment of OCD				
Drug Name	**Starting Dose (mg/day)**		**Max Dose (mg/day)**	
	Pre-Adolescent	**Adolescent**	**Pre-Adolescent**	**Adolescent**
*Sertraline	12.5–25 mg/day	25–50 mg/day	150 mg/day	200 mg/day
*Fluoxetine[a]	2.5–5 mg/day	10–20 mg/day	20-60 mg/day (higher range for higher weight children)	80 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	20 mg/day
Citalopram[a]	2.5–10 mg/day	10–20 mg/day	40 mg/day	40 mg/day
Paroxetine[b]	2.5–10 mg/day	10 mg/day	40 mg/day	60 mg/day

** FDA approved for OCD in children—sertraline: 6 years and older; fluoxetine: 7 years and older; fluvoxamine: 8 years and older; clomipramine: 10 years and older. Escitalopram, citalopram, and paroxetine are not currently FDA approved for treatment of OCD in children.*
[a]Consider EKG monitoring, especially if polypharmacy or higher doses.
[b]Slow taper upon discontinuation.

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)
  - Overcoming Unwanted Intrusive Thoughts: A CBT Based Guide to Getting Over Frightening, Obsessive or Disturbing Thoughts (Winston, 2017)
- **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***
  - Beyond OCD, ***http://beyondocd.org/***
  - PANDAS Network, ***http://www.pandasnetwork.org/***

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

For a full list of references, visit ***https://floridabhcenter.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 ***https://floridabhcenter.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 years old, 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/***.

Note: The TF-CBT course through Medical University of South Carolina requires a cost per person.

Treat comorbid conditions optimally.

Level 2

Where TF-CBT is not readily available or after inadequate response to TF-CBT (or CPP in younger children), other psychosocial interventions include:

- 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)

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:

- Young children - Parent Child Interaction Therapy (PCIT)
- Adolescents - Dialectical Behavior Therapy (DBT)

Level 3

Re-evaluate and reassess for new or ongoing safety concerns.
Refer to *Principles of Practice* on page 3 for under age 6 years old and page 6 for 6-17 years old.

- There is 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 10 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.

Level 4

Fluoxetine and sertraline may be considered for treatment of depression, anxiety and mood dysregulation symptoms associated with PTSD. These medications do NOT have as robust evidence for treatment of core PTSD symptoms in children as compared to adults.

Not Recommended:

- 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.
3. Limited evidence of efficacy for agents listed in Levels 3 and 4.

For a full list of references, visit ***https://floridabhcenter.org/***.

Schizophrenia in Children and Adolescents

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 interviews

- Brief Psychiatric Rating Scale for Children (BPRS-C)
- Positive and Negative Syndrome Scale (PANSS-6)

Links to clinical tools listed above are available at ***https://floridabhcenter.org/***.

Level 1

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

- Aripiprazole, lurasidone, risperidone, quetiapine, (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, including Parkinsonism, akathisia and tardive dyskinesia
- Metabolic monitoring per ADA guidelines

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

If there is no appreciable symptom improvement (less than minimally improved on the CGI) after two weeks at a therapeutic dose, consider changing to a different agent (see Level 2).

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.

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***

Notes:

1. For those presenting with catatonia and schizophrenia, strongly consider consultation with a child and adolescent psychiatrist. For those presenting with catatonia not responding to antipsychotic monotherapy, short-term augmentation with high dose benzodiazepines is recommended in an acute care setting. ECT should be considered for those presenting with catatonia and not responding to short-term high dose benzodiazepines.

2. 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.

3. Although the first-generation 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.

Level 2

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.

Continue psychosocial interventions.

Level 3

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.

Notes:

1. For nonresponse 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).

For patients with treatment failure characterized by ongoing psychotic symptoms exacerbated by non-adherence, psychosocial strategies should be enhanced to address non-adherence, including developing strategies to better monitor medication administration.

Treatment with a long-acting depot antipsychotic agent should be considered as clinically appropriate, including in situations of non-adherence.

Available long-acting agents include aripiprazole extended-release injectable suspension, paliperidone palmitate, risperidone microspheres, haloperidol decanoate, fluphenazine decanoate. None of these agents are FDA-approved for use under the age of 18 years old.

Note: 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 https://www.fda.gov/drugs/drug-safety-and-availability/fda-drug-safety-communication-fda-review-study-sheds-light-two-deaths-associated-injectable

Above website link was updated at the time of publication.

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.

Notes:

1. Treatment refractory defined as failing at least two therapeutic dose trials of an antipsychotic agent for at least 6 weeks at a therapeutic dose that was adhered to ≥ 80% of the time.

2. Clozapine can only be prescribed through the Clozapine Risk Evaluation and Mitigation Strategy (REMS) program, https://www.newclozapinerems.com/home.

→	**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.

For a full list of references, visit ***https://floridabhcenter.org/***.

Table 14.

Dosing Recommendations for Treatment of Schizophrenia in Children and Adolescents			
Medication	**Starting Dose**	**Maximum Dose**	**FDA Approved Age Range**
First-Generation Antipsychotics			
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
Second-Generation Antipsychotics			
Aripiprazole*	2–5 mg/day	30 mg/day	13–17 years old
Clozapine	Start at 12.5 mg, titrate slowly (max increase of 25 mg every other day during week 1, thereafter if tolerated increase by 25 to 50 mg every other day). Hold dose/reduce dose if benign drug fever or tachycardia that often dissipates over time. Target dose: 250 mg to 450 mg/day in divided doses (lower doses in females and non-smokers).	Maximum dose 600 mg/day in divided doses (900 mg in severe cases if tolerated, but increased seizure risk at doses ≥600 mg/day). Target clozapine blood level of 350-450 ng/mL).	Not FDA approved for children and adolescents
Lurasidone	40 mg/day	80 mg/day	13–17 years old
Olanzapine*	2.5–5 mg/day	20 mg/day	13–17 years old
Paliperidone*	3 mg/day	6-12 mg/day***	12–17 years old
Quetiapine	IR: 25 mg twice per day ER: 50 mg once daily	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.*

***The FDA maximum for haloperidol is 100 mg/day based on old trials in adults, but doses over 20 mg/day are not generally recommended in children and adolescents unless benefits clearly outweigh risks.*

****6 mg/day recommended maximum dose in children and adolescents weighing less than 51 kg*

Notes:

The Florida Behavioral Health Collaborative Pediatric Hotline

Offers a coaching experience between child and adolescent psychiatrists and pediatric primary care providers

1-866-487-9507

Consultations are available to all providers regardless of insurance carrier caring for children/youth up to 21 years old.

UNIVERSITY of SOUTH FLORIDA
College of Behavioral & Community Sciences
Florida Center for Behavioral Health Improvement and Solutions

Pediatricians are increasingly providing behavioral health care to children. To help with this reality, the Florida Behavioral Health Collaborative Pediatric Hotline aims to connect pediatricians with board certified child and adolescent psychiatrists and care coordinators to discuss the presentation of symptoms and choose a treatment option that best suits the needs of the child. The psychiatrists provide a co-management experience designed to augment pediatricians' skills in treating behavioral health issues encountered in the primary care setting.

The hotline is a free resource available on non-holiday weekdays between 8:30 am and 4:30 pm. Calls will be returned within 24 hours.

When accessing the Hotline, pediatricians can expect assistance with:

- Assessing symptom severity/crisis management
- Scheduling of telepsychiatry consultations within 24 hours
- Pharmacological and non-pharmacological management options
- Discussion of appropriate screening tools, including social determinants of health
- Strategies to engage parents/guardians in treatment

Resources available through http://www.floridabhcenter.org/ website:

- Florida Child and Adolescent Psychotherapeutic Medication Guidelines
- The Program has partnered with Aunt Bertha, a locator of social services and community resources in Florida (*https://floridamedicaidmentalhealth.auntbertha.com/*)

The Hotline is an ongoing program of the Florida Center for Behavioral Health Improvements and Solutions.

Visit *http://www.floridabhcenter.org/* for more information.

floridabhcenter.org

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

Contact information

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