Prescribing Guidelines for Behavioral Health

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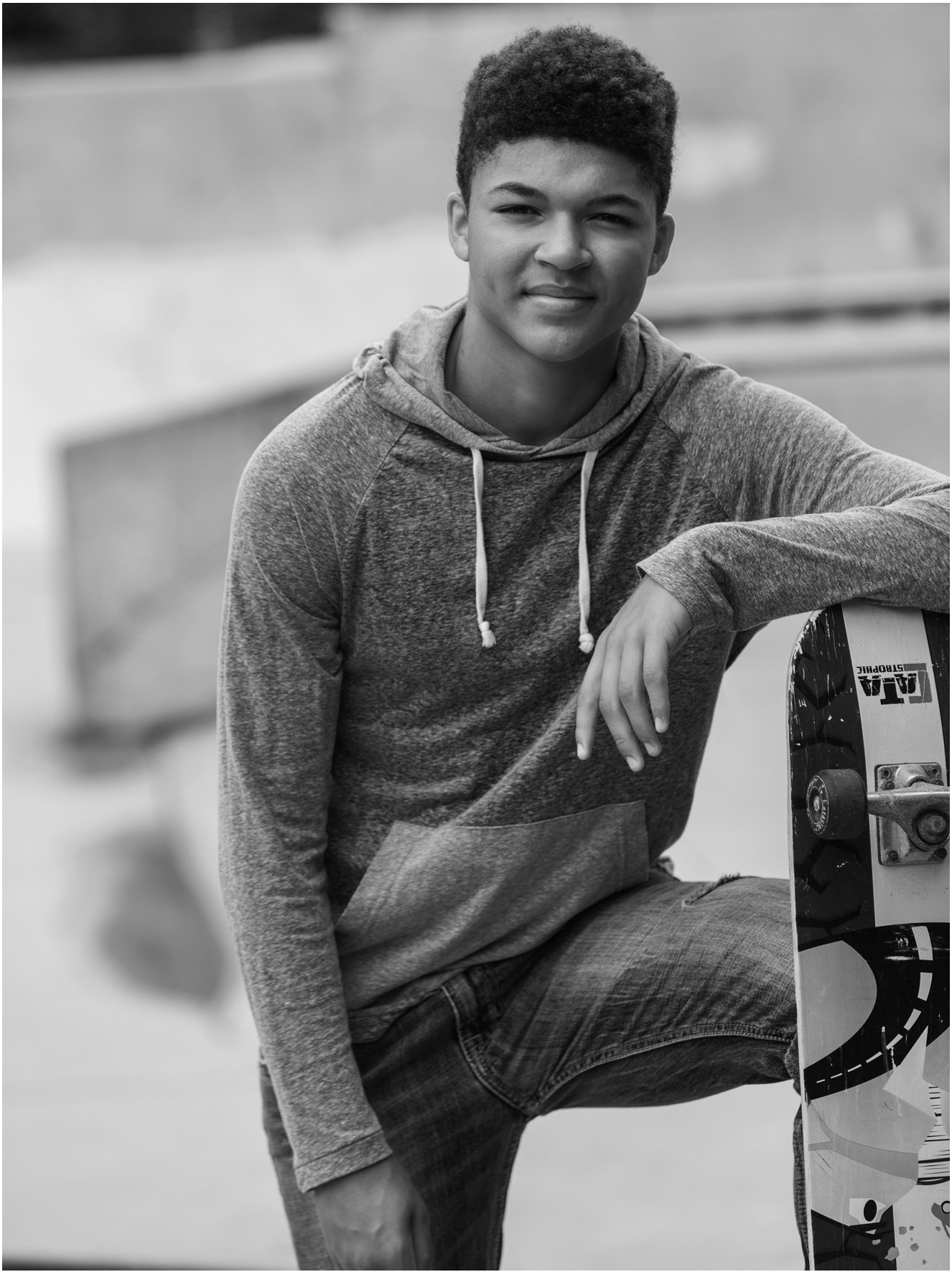


Prescribing for Behavioral Health

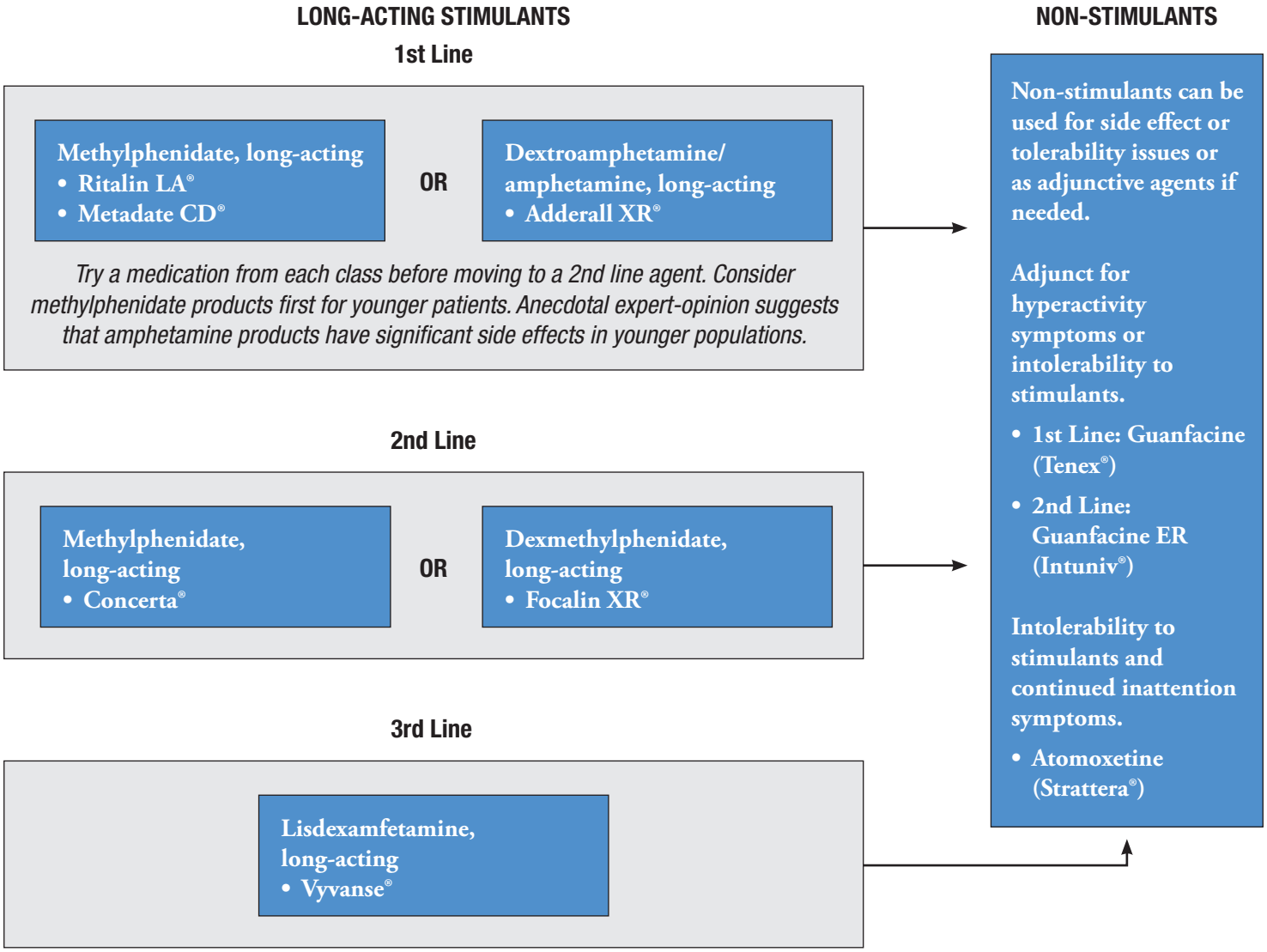
This document was developed by Nationwide Children's Hospital in conjunction with Partners For Kids using evidence-informed clinical guidelines and expert opinion, where evidence is lacking, and are generally reflective of FDA approved indications and recommendations. It is designed to help primary care practitioners provide timely and effective treatment for children with mental health disorders. Information on cost is provided to aid in decision-making when appropriate. This document should not be considered a substitute for sound clinical judgment, and clinicians are encouraged to seek additional information if questions arise as well as refer to or consult with specialty behavioral health if therapeutic response is inadequate.

Additional resources can be found at www.ohiomindsmatter.org and http://ppn.mh.ohio.gov/ or through professional consultation at Pediatric Psychiatry Network 877-PSY-OHIO OR 1-877-779-6446, Nationwide Children's Hospital PCTC at (614) 355-0221 or 877-335-0221.

Attention Deficit/Hyperactivity Disorder (ADHD)

- Long-acting stimulant medications are generally preferred for school-age children.
- Start with a 1st line medication from the methylphenidate or dextroamphetamine-amphetamine class, depending on patient's age.
- Maximize dosing of one agent before moving to the next. If ineffective or side effects develop, switch classes, then move to second line medication if needed.
- Before considering a stimulant medication, obtain cardiac history, including sudden cardiac death in first degree relative under age 50, history of congenital heart defect, or conduction defect.
- Maximize dosing of long-acting stimulant before adding an immediate release formulation medication.

Refer to medication chart for a listing of preferred and non-preferred agents and clinical pearls, including information regarding alternative formulations such as crushable tablets, capsules to be opened, liquids or patch.



Other stimulants can be used for side effect or tolerability issues and unique needs.

Vanderbilt Assessment Scales

The Vanderbilt Assessment Scales is a tool used to diagnose and monitor ADHD in children and adolescents.

- Assessment asks parents and teachers about the child's behaviors within the past 6 months.
- Scoring exists for each section to reflect diagnosis of ADHD, oppositional-defiant disorder, conduct disorder, mood concerns, academic performance and classroom behavioral performance.
- Providers are encouraged to use the assessment for initial diagnosis, follow up to monitor response to medication and use objective date to optimize medication use for pediatric ADHD.
- Vanderbilt Assessment Scales are found at www.nichq.org/sites/default/files/resource-file/NICHQ_Vanderbilt_Assessment_Scales.pdf

Pharmacogenomic Testing for ADHD

- Pharmacogenomics is an evolving field in the health care industry. At this time, there is still much to be learned about what specific role an individual's 200,000+ genes play in their health and medication response.
- Many factors are taken into consideration when initiating a medication for a patient. Knowing a patient's metabolism status of specific CYP pathways is helpful, but only one factor in the decision making process.

Although tests are available and covered by some insurers, there is limited clinically relevant data to support its use in determining medication and dosage selections, and therefore, not recommended as part of standard care.

Long-acting Stimulant Conversion Guide

Prescribers at times may need to switch patients from one stimulant to another due to various reasons including patient tolerability and formulary changes. This guide serves as a resource to aid in decisionmaking for stimulant dose conversions. This guide should not be considered a substitute for clinical judgement, and all patients should be monitored closely for clinical and adverse effects.

General Recommendations:

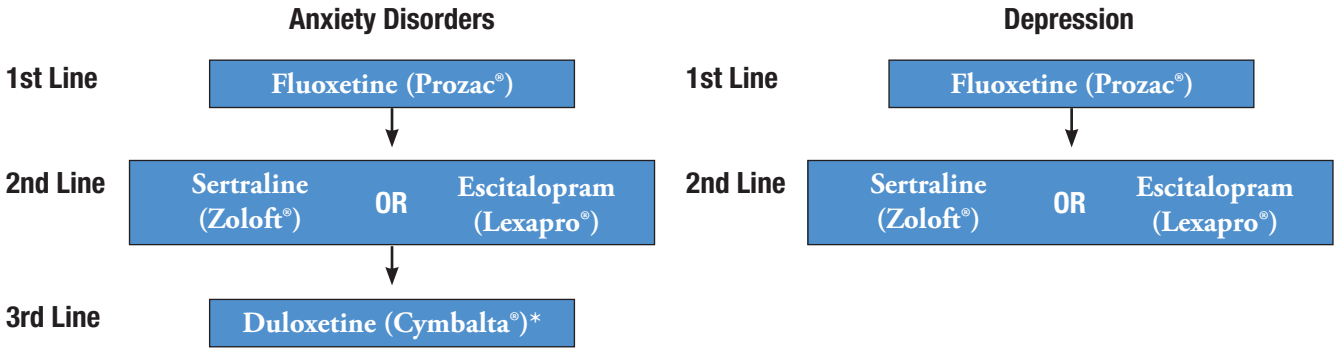
- Insufficient evidence exists for switching methylphenidate to amphetamines. Consider switching from methylphenidate to amphetamines at half of the dose.
- When switching dexmethylphenidate to methylphenidate, the methylphenidate dose should be twice the dexmethylphenidate dose.
- Concerta® (methylphenidate ER) and Vyvanse® (lisdexamfetamine) are uniquely dosed. The table below provides an initial dose which may require additional titration.

1st Line Stimulants		2nd Line Stimulants		3rd Line Stimulant
Dextroamphetamine/ amphetamine ER (Adderall® XR)	**Methylphenidate ER (Ritalin® LA or Metadate® CD)**	**Methylphenidate ER (Concerta®)**	**Dexmethylphenidate (Focalin XR®)**	**Lisdexamfetamine (Vyvanse®)**
N/A	N/A	N/A	N/A	10 mg
5 mg	10 mg	N/A	5 mg	20 mg
10 mg	20 mg	18 mg	10 mg	30 mg
15 mg	30 mg	36 mg	15 mg	40 mg
20 mg	40 mg	54 mg	20 mg	50 mg
25 mg	50 mg	72 mg	25 mg	60 mg
30 mg	60 mg	N/A	30 mg	70 mg

Patient-related Considerations for ADHD Drug Prescription	
Patient-related Considerations	**Recommendation**
Appetite suppression	• Eat protein rich breakfast prior to administration • Schedule meals • Monitor height and weight
Difficulty swallowing	• Consider alternate medication form: - Capsule (refer to medication table to determine which can be opened and sprinkled) - Chewable tablet - Liquid
Insomnia	• If long duration of stimulant action, change to shorter duration stimulant • Encourage good sleep hygiene habits
Abdominal pain	• Take with meals
Headache	• Increase hydration • Schedule meals
Tachycardia and chest pain	• Consider dose reduction • Switch to a non-stimulant
Concern for abuse and/or diversion	• Consider a prodrug form of a stimulant or non-stimulant
Flat affect or mood lability	• Consider dose reduction • Switch to a non-stimulant

Anxiety Disorders and Depression

- Mild cases of anxiety and depression may resolve with lifestyle changes and supportive care (see www.GLADPC.org). Counseling, ideally Cognitive Behavioral Therapy (CBT), is recommended for persistent symptoms or moderate to severe cases.
- Medications may be considered in moderate to severe cases. Selective Serotonin Reuptake inhibitors (SSRIs) are the most effective medications for anxiety disorders and depression.
- The medications listed below have FDA indication, or data is sufficient to endorse their use. Other SSRIs may be used effectively, although data is limited.
- The FDA issued a black box warning due to a small and possible increase in talk of self-harm (from 2 to 4 percent) in teens treated with SSRIs for depression. Primary care providers should talk with patients and families about this potential risk but should be comfortable prescribing SSRIs for children when medication is indicated.



**Specialty mental health consultation or management is recommended.*

Patient Health Questionnaire (PHQ-A)

The Patient Health Questionnaire (PHQ-A) is a screening and monitoring tool for depression in adolescents aged 11-17.

- The Questionnaire asks patients about their symptoms experienced within the past 2 weeks.
- Scoring of the questionnaire reflects presence of depressive symptoms with higher scores reflecting a worse status.
- Providers are encouraged to use the questionnaire to optimize medication use for pediatric depression.
- You can find a PHQ-A questionnaire at https://www.psychiatry.org/File%20Library/Psychiatrists/Practice/DSM/APA_DSM5_Severity-Measure-For-Depression-Child-Age-11-to-17.pdf

Screen for Child Anxiety Related Disorders

The Screen for Child Anxiety Related Disorders (SCARED) is a tool used to screen and monitor patients age 8-18 for anxiety disorders.

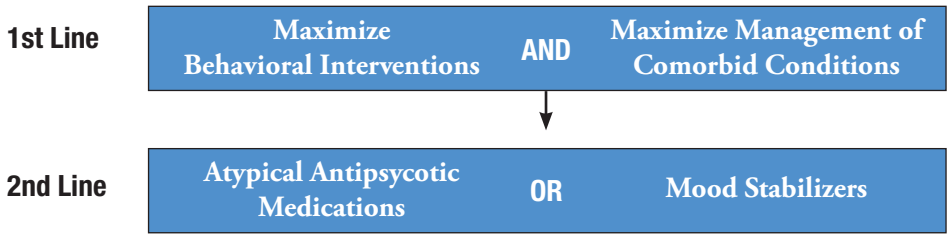
- The tool asks patients or their parents about their symptoms experienced within the past 3 months.
- Scoring of the Screening is used to monitor patients with higher scores reflecting a worse status.
- Providers are encouraged to use the tool to screen, monitor and optimize medication use for anxiety symptoms in children.
- You can find the SCARED questionnaire at
- Child version: https://www.aacap.org/App_Themes/AACAP/docs/member_resources/toolbox_for_clinical_practice_and_outcomes/symptoms/ScaredChild.pdf
- Parent version: https://www.aacap.org/App_Themes/AACAP/docs/member_resources/toolbox_for_clinical_practice_and_outcomes/symptoms/ScaredParent.pdf

Bipolar Disorder (BPD)

- Psychopharmacologic treatment of bipolar disorder typically involves a specialty mental health practitioner. Primary care practitioners are advised to assist with care coordination, including monitoring for treatment efficacy and adverse effects.
- Medications used to treat BPD include atypical antipsychotic medications and mood stabilizers.
- Potential adverse effects include sedation, weight gain, hyperlipidemia, and abnormal movements (atypical antipsychotics); blood and liver abnormalities (valproic acid); and hypothyroidism/goiter, hyponatremia, and kidney abnormalities (lithium).

Disruptive Behavior Disorders (DBD)

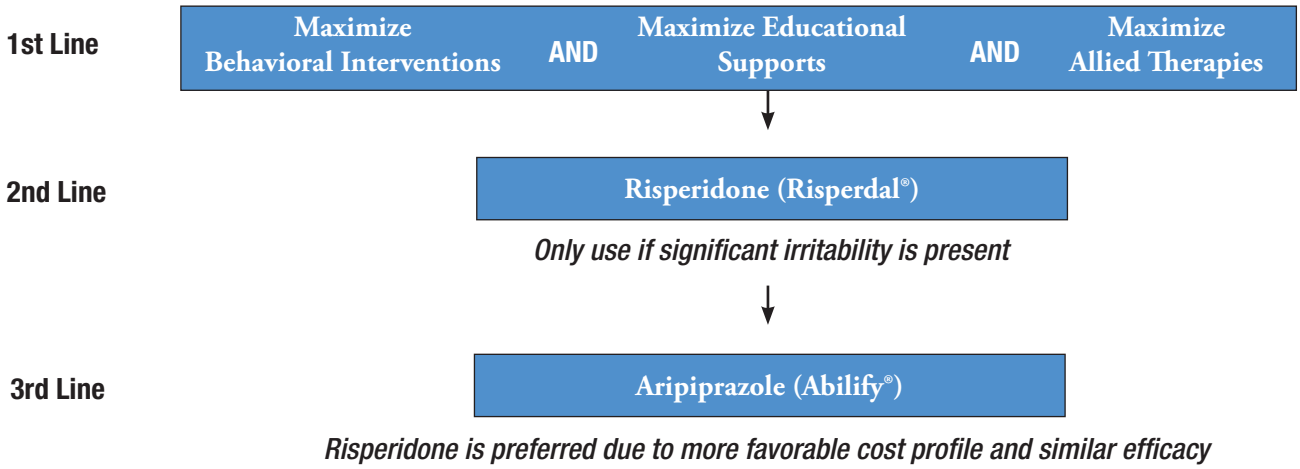
- Behavioral intervention, rather than medication, is considered the primary treatment of Disruptive Behavior Disorders such as Oppositional Defiant Disorder and Conduct Disorder.
- DBDs are highly comorbid with ADHD. ADHD treatment should be maximized before other agents are prescribed.
- Medications may be considered to treat associated symptoms such as aggression, when severe. Data is limited due to a small number of high quality studies and inconsistent outcome variables.
- Alpha agonists (guanfacine and clonidine) are sometimes used in practice due to a more favorable side effect profile than antipsychotic medications, but research is limited.



Specialty mental health consultation or management is recommended.

Autism Spectrum Disorder (ASD)

- The primary treatment of ASD includes behavioral intervention, educational supports, and/or allied therapies (occupational therapy, speech therapy) as appropriate.
- Atypical antipsychotic medications are approved for the treatment of irritability that may accompany ASD. Prior to prescribing medication, other medical causes of irritability should be excluded.
- Primary care providers should consider mental health consultation prior to or instead of prescribing medication.



Medication List for Medicaid Plans

Drug	Starting Daily Dose[1]	Max Daily Dose	Average Cost Per Script[2]	Clinical Pearls
Preferred Stimulants				
Dextroamphetamine-Amphetamine Immediate Release (Adderall®)	2.5-5 mg	40 mg	$51	3:1 ratio dextro- to levo-amphetamine ratio.3 Tablet can be crushed. Duration 4-6 hours.
Dextroamphetamine-Amphetamine Long-Acting (Adderall XR®)	5-10 mg	40 mg	$184	3:1 ratio dextro- to levo-amphetamine ratio.3 Capsule can be opened and sprinkled. Duration 10-12 hours.
Methylphenidate Immediate Release (Ritalin®)	5 mg	60 mg	$45	Tablet can be crushed. Duration 4 hours.
Methylphenidate Long-Acting (Ritalin LA®)	10-20 mg	60 mg	10, 60mg: $346 20, 30, 40mg: $174	50% is immediate release and 50% is extended release. Capsule can be opened and sprinkled. The 10 mg strength is not available generically and is more expensive. Duration 8-10 hours.
Methylphenidate Long-Acting (Metadate CD®)	10-20 mg	60 mg	$174	30% is immediate release and 70% is extended release. Capsule can be opened and sprinkled. Duration 8-10 hours.
Preferred Non-Stimulants				
Guanfacine (Tenex®)	0.5 mg	4 mg	$34	Monitor blood pressure. Taper when discontinuing.
Guanfacine Extended Release (Intuniv®)	1 mg	4 mg	$314	Take at the same time each day. Do not administer with high-fat meal. Tablet cannot be opened or crushed. Monitor blood pressure. Taper when discontinuing.
Non-Preferred Stimulants				
Amphetamine Extended Release Dispersable Tablet (Adzenys XR-ODT®)	3.1 mg	18.8 mg	$407	Extended-release orally disintegrating tablet. 3:1 ratio of dextro- and levo-amphetamine.3 Duration 10-12 hours. See package insert for mg conversion to mixed amphetamine salts.
Amphetamine Extended Release Suspension (Dyanavel XR®)	2.5 mg	20 mg	$330	Long acting oral suspension 2.5mg/ml. 3:1 ratio of dextro- and levo-amphetamine.3 Duration 12 hours. See package insert for mg conversion to mixed amphetamine salts.
Amphetamine Immediate Release (Evekeo®)	5 mg	40 mg	$229	Immediate release tablet. 1:1 ratio of dextro- and levo-amphetamine.3 Duration 4-6 hours.
Dexmethylphenidate Immediate Release (Focalin®)	2.5 mg	20 mg	$29	Tablet can be crushed. Duration 4 hours. When switching from methylphenidate reduce dose by half.
Dexmethylphenidate Long-Acting (Focalin XR®)	5 mg	30 mg	$282	50% is immediate release and 50% is extended release. Capsule can be opened and sprinkled. Duration 10-12 hours. When switching from methylphenidate, reduce dose by half.

(Continued)

Drug	Starting Daily Dose[1]	Max Daily Dose	Average Cost Per Script[2]	Clinical Pearls
Non-Preferred Stimulants (continued)				
Dextroamphetamine-Amphetamine Long-Acting (Mydayis®)	12.5 mg	25 mg	$325	Approved for children 13 years and older. Capsule can be opened and sprinkled. Duration 16 hours. See package insert for mg conversion to mixed amphetamine salts.
Dextroamphetamine Extended Release (Dexedrine® Spansule®)	5 mg	40 mg	$140	Extended release capsule. Swallow capsule whole. Duration 6-8 hours.
Dextroamphetamine Immediate Release (Zenzedi®/Dexedrine®)	5 mg	40 mg	$245	Immediate release tablet. Can be crushed. Duration 4-6 hours. Generic available in only 5 mg and 10 mg strengths.
Dextroamphetamine Immediate Release (ProCentra®)	5 mg	40 mg	$304	Short acting oral solution 5 mg/5mL. Duration 4-6 hours.
Lisdexamfetamine (Vyvanse®)	30 mg	70 mg	$354	Pro-drug metabolized to 100% dextroamphetamine. Decreased risk of abuse. Available in capsule and chewable tablet. Capsule can be opened and dissolved in liquid. Duration 10-12 hours.
Methylphenidate Long-Acting (Aptensio XR®)	10 mg	60 mg	$257	40% is immediate release and 60% is extended release. Capsule can be opened and sprinkled. Duration 8-12 hours.
Methylphenidate Long-Acting (Concerta®)	18 mg	54 mg (<13y) 72 mg (≥13y)	$296	22% is immediate release and 78% is extended release. Tablet cannot be crushed. Duration 10-12 hours.
Methylphenidate Long- Acting (Cotempla XR-ODT™)	17.3 mg	51.8 mg	$410	Long acting orally disintegrating tablet. Duration 8-12 hours.
Methylphenidate Long-Acting (Daytrana®)	10 mg	30 mg	$439	Transdermal system. Apply for 9 hours. Duration 10-12 hours. May cause skin irritation.
Methylphenidate Long-Acting (Quillichew ER®)	10-20 mg	60 mg	$398	Long acting chewable tablet. Duration 8 hours.
Methylphenidate Long-Acting (Quillivant XR®)	20 mg	60 mg	$339	Long acting oral suspension 25mg/5ml. Duration 12 hours
Non-Preferred Non-Stimulants				
Atomoxetine (Strattera®)	0.5 mg/kg	1.4 mg/kg 100mg"	$463	Must be taken daily. Cannot be opened or crushed.
Clonidine (Catapres®)	0.05 mg	0.4 mg	$18	May cause sedation; sometimes used as sleep aid. Monitor blood pressure. Taper when discontinuing.
Clonidine Extended Release (Kapvay®)	0.1 mg	0.4 mg	$269	Doses higher than 0.1mg should be taken twice a day, with an equal or higher split dosage given at bedtime. Tablet cannot be opened or crushed. Monitor blood pressure. Taper when discontinuing.

Drug	Starting Daily Dose[1]	Max Daily Dose	Average Cost Per Script[2]	Clinical Pearls
SSRIs				
Escitalopram (Lexapro®)	5 mg	20 mg	$141	Taper when discontinuing. 5 mg/5mL solution available. Not FDA approved for anxiety disorders; use at the discretion of clinician.
Fluoxetine (Prozac®)	10 mg	40 mg	$78	Taper when discontinuing. 20mg/5mL solution available.
Sertraline (Zoloft®)	12.5 mg	200 mg	$85	Taper when discontinuing. 20 mg/mL liquid concentrate available; must be diluted with certain beverages.
SNRIs				
Duloxetine (Cymbalta®)	30 mg	120 mg	$235	Taper when discontinuing.
Antipsychotics				
Aripiprazole (Abilify®)	2-5 mg	20-30 mg	$38	Cost is per tablet regardless of strength. Consider starting with half of 5mg tablet daily. 1 mg/mL solution available but more expensive. Monitor for weight gain, abnormal movements. Complete baseline and periodic blood work. Taper when discontinuing.
Risperidone (Risperdal®)	0.5 mg	3-6 mg	$70	1 mg/mL solution available. Monitor for weight gain, abnormal movements. Complete baseline and periodic blood work. Taper when discontinuing.

Key

Bolded medications are available generically.

[1]Dosing is for school-aged children. Medication treatment in preschool-aged children should be considered after a trial of behavioral intervention.

[2]Cost based on generic drug when available using average 30-day strength and dosing.

[3]Contains a combination of d-amphetamine and l-amphetamine. More potent release of dopamine occurs with d-amphetamine, resulting in more symptom reduction for hyperactivity/impulsivity, but more appetite suppression. More potent release of norepinephrine occurs with l-amphetamine, resulting in more symptom reduction for inattention, but less CNS excitation and more cardiovascular adverse effects.

Note: Drug information is compiled from data at Lexicomp Online, online.lexi.com. Prices are for reference and actual cost may vary based on drug strength, quantity and other factors. Additional sources and updated prescription information can be reviewed online at ***NationwideChildrens.org/Behavioral-Health-For-Physicians****.*

Last updated: 5/2/2019 by PFK Pharmacy

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Referrals and Consultations

Online: **NationwideChildrens.org**
Phone: **(614) 722-6600** or **(877) 722-6220** | Fax: **(614) 722-4000**
Physician Direct Connect Line for 24-hour urgent physician consultations:
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