Prescribing Guidelines for Behavioral Health

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Partners For Kids℠

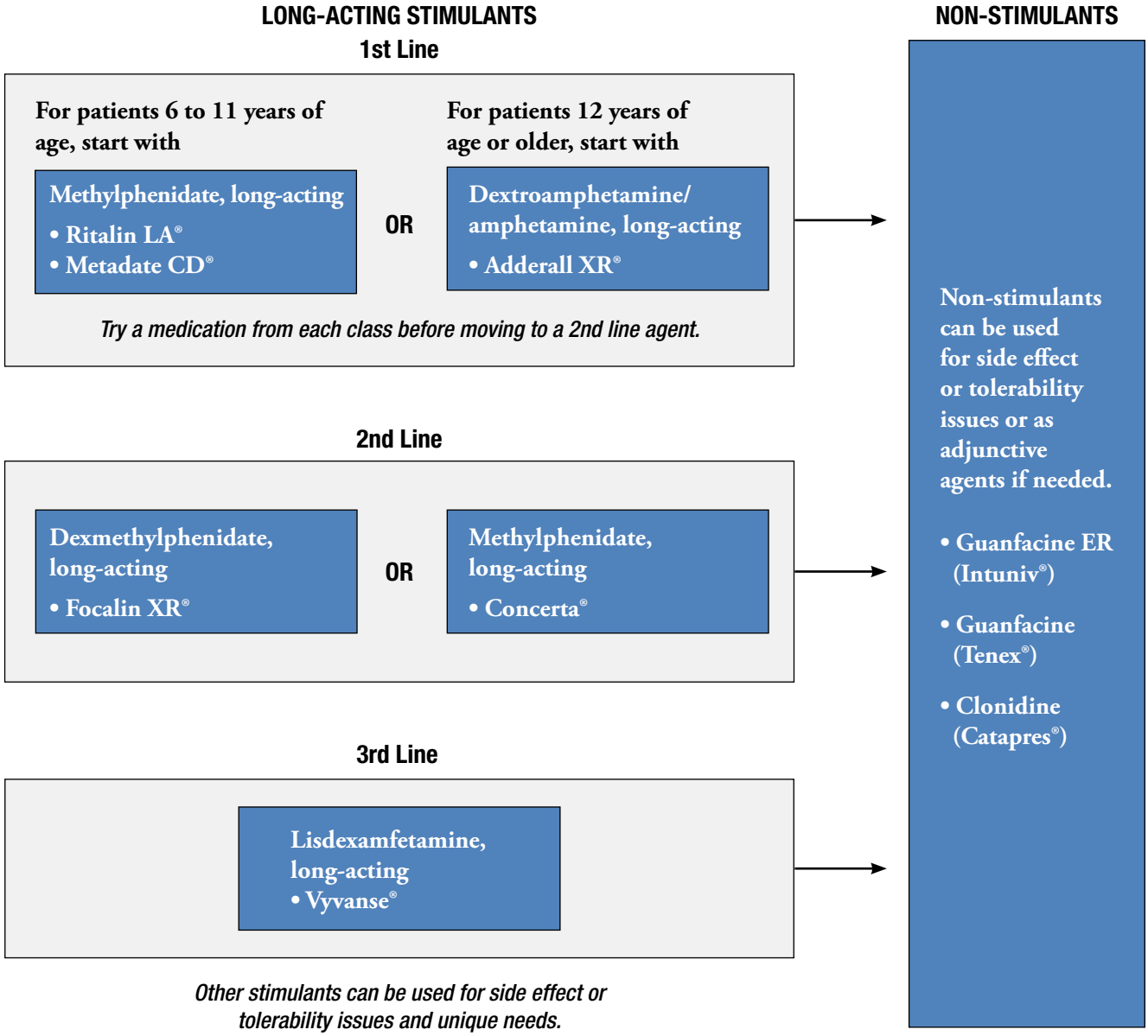
Prescribing for Behavioral Health

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. 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.

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.
- 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.



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 decision-making 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.

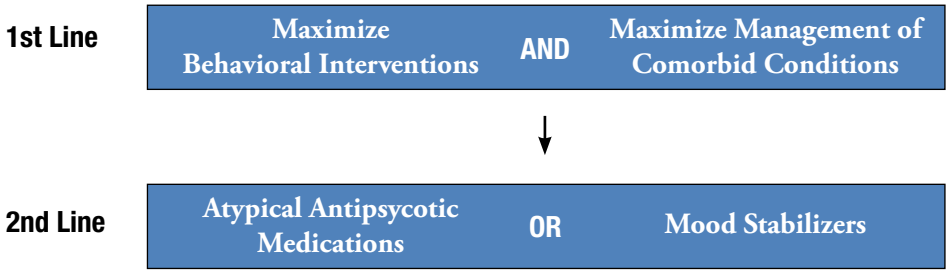
General Recommendations:

- No specific guidance in the literature is available for switching methylphenidate to amphetamine. Consider switching from methylphenidate to amphetamines at half of the dose.
- Literature supports that if switching dexmethylphenidate to methylphenidate, the methylphenidate dose will 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)**	**Dexmethylphenidate (Focalin XR®)**	**Methylphenidate ER (Concerta®)**	**Lisdexamfetamine (Vyvanse®)**
N/A	N/A	N/A	N/A	10 mg
5 mg	10 mg	5 mg	N/A	20 mg
10 mg	20 mg	10 mg	18 mg	30 mg
15 mg	30 mg	15 mg	36 mg	40 mg
20 mg	40 mg	20 mg	54 mg	50 mg
25 mg	50 mg	25 mg	72 mg	60 mg
30 mg	60 mg	30 mg	N/A	70 mg

Disruptive Behavior Disorders (DBD)

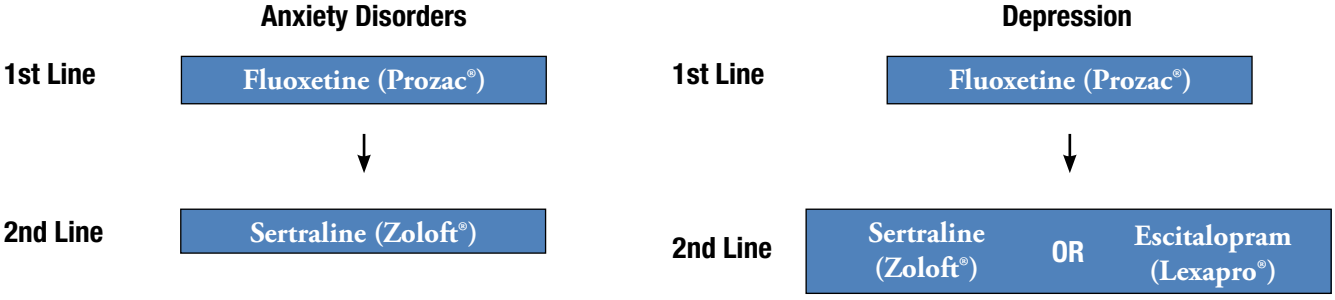
- Behavioral intervention, rather than medication, is considered the primary treatment of Disruptive Behavior Disorders such as Oppositional Defiant Disorder and Conduct Disorder.
- DBDs are highly comorbid with ADHD. ADHD treatment should be maximized before other agents are prescribed.
- Medications 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.

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.

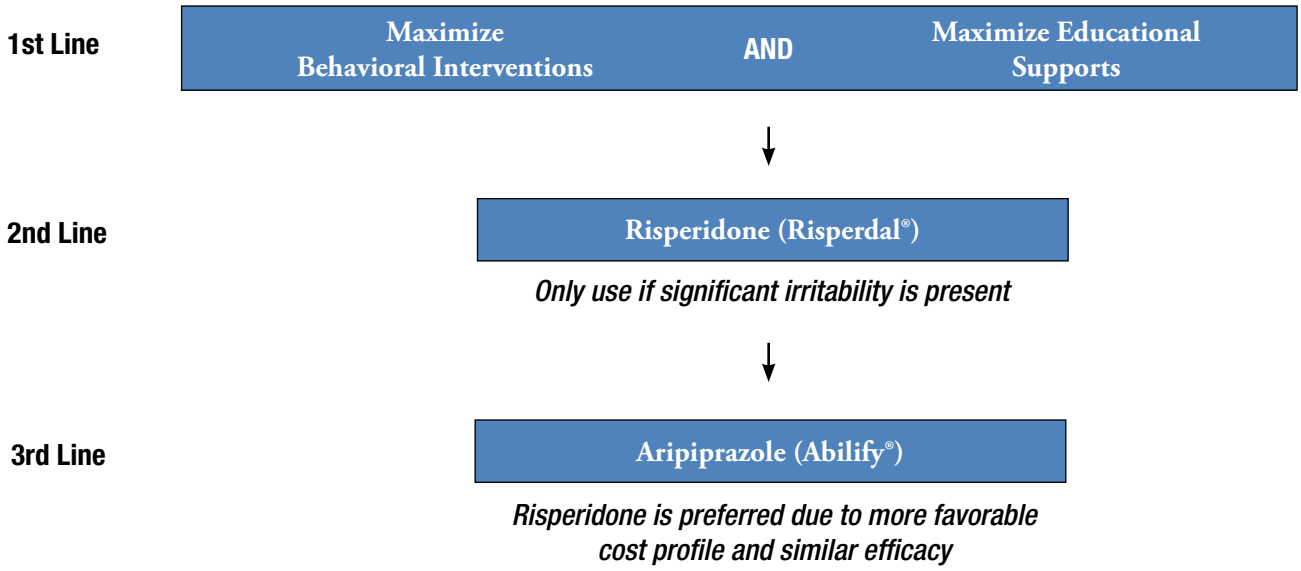


Bipolar Disorder (BPD)

- 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).

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	$44	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	5-10 mg	$183	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	$33	Tablet can be crushed. Duration 4 hours.
Methylphenidate Long-Acting (Metadate CD®)	10-20 mg	60 mg	$213	Capsule can be opened and sprinkled. Duration 8-10 hours.
Methylphenidate Long-Acting (Ritalin LA®)	10-20 mg	60 mg	$174	Capsule can be opened and sprinkled. The 10mg and 60 mg strengths are not available generically. Duration 8-10 hours.
Preferred Non-Stimulants				
Clonidine (Catapres®)	0.05 mg	0.4 mg	$22	May cause sedation; sometimes used as sleep aid. Monitor blood pressure. Taper when discontinuing.
Guanfacine (Tenex®)	0.5 mg	4 mg	$24	Monitor blood pressure. Taper when discontinuing.
Guanfacine Extended Release (Intuniv®)	1 mg	4 mg	$50	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 Suspension (Dyanavel XR®)	2.5 mg	20 mg	$236	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 Extended Release Dispersable Tablet (Adzenys XR-ODT®)	3.1 mg	18.8 mg	$324	Extended-release orally disintegrating tablet. 3:1 ratio of dextro- and levo-amphetamine.[3] Duration 10-12 hours. See package insert for mg conversation to mixed amphetamine salts.
Amphetamine Immediate Release (Evekeo®)	5 mg	40 mg	$195	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	$30	Tablet can be crushed. Duration 4 hours. When switching from methylphenidate reduce dose by half.
Dexmethylphenidate Long-Acting (Focalin XR®)	5 mg	30 mg	$272	Capsule can be opened and sprinkled. Duration 10-12 hours. When switching from methylphenidate, reduce dose by half. The 25mg and 35mg strengths are not yet available generically.
Dextroamphetamine Extended Release (Dexedrine® Spansule®)	5 mg	40 mg	$155	Extended release capsule. Swallow capsule whole. Duration 6-8 hours.
Dextroamphetamine Immediate Release (Zenzedi®/Dexedrine®)	5 mg	40 mg	$208	Immediate release tablet. Can be crushed. Duration 4-6 hours.

Drug	Starting Daily Dose[1]	Max Daily Dose	Average Cost Per Script[2]	Clinical Pearls
Non-Preferred Stimulants (continued)				
Dextroamphetamine Immediate Release (ProCentra®)	5 mg	40 mg	$243	Short acting oral solution 5 mg/5mL. Duration 4-6 hours.
Lisdexamfetamine (Vyvanse®)	20 mg	70 mg	$298	Pro-drug metabolized to 100% dextroamphetamine. Decreased risk of abuse. Can be opened and dissolved in liquid. Duration 10-12 hours.
Methylphenidate Long-Acting (Aptensio XR®)	10 mg	60 mg	$234	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)	$276	Tablet cannot be crushed. Duration 10-12 hours.
Methylphenidate Long-Acting (Daytrana®)	10 mg	30 mg	$364	Transdermal system. Apply for 9 hours. Duration 10-12 hours. May cause skin irritation.
Methylphenidate Long-Acting (Quillichew ER®)	10-20 mg	60 mg	$324	Long acting chewable tablet. Duration 8 hours.
Methylphenidate Long-Acting (Quillivant XR®)	20 mg	60 mg	$552	Long acting oral suspension 25mg/5ml. Duration 12 hours
Non-Preferred Non-Stimulants				
Atomoxetine (Strattera®)	0.5 mg/kg	1.4 mg/kg 100mg	$444	Must be taken daily. Cannot be opened or crushed.
Clonidine Extended Release (Kapvay®)	0.1 mg	0.4 mg	$270	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.
SSRIs				
Escitalopram (Lexapro®)	5 mg	20 mg	$130	Taper when discontinuing. 5 mg/5mL solution available.
Fluoxetine (Prozac®)	10 mg	40 mg	$79	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.
Antipsychotics				
Aripiprazole (Abilify®)	2-5 mg	20-30 mg	$335	Cost is per tablet regardless of strength. Consider starting with half of 5mg tablet daily. 1 mg/mL solution available. Monitor for weight gain, abnormal movements. Periodic blood work recommended. Taper when discontinuing.
Risperidone (Risperdal®)	0.5 mg	3-6 mg	$206	1 mg/mL solution available. Monitor for weight gain, abnormal movements. Periodic blood work recommended. 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 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 ***PartnersForKids.org/resource.***

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Coverage may change: 7/2017

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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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