

# Child Medication Fact Book *for* Psychiatric Practice

SECOND EDITION



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*Child Study Center, Yale University School of Medicine*

JOSHUA FEDER, MD  
ELIZABETH TIEN, MD  
TALIA PUZANTIAN, PHARM.D, BCPP

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SECOND EDITION

**Joshua Feder, MD**

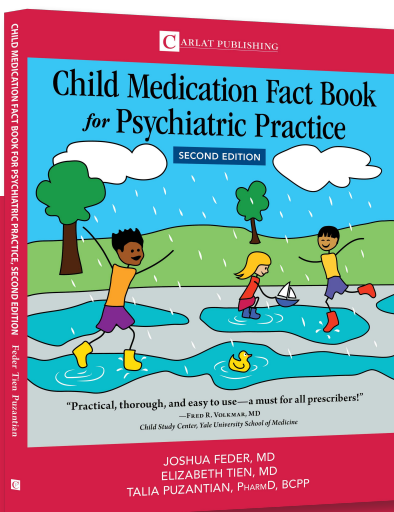
Associate Professor, Infant and Early Childhood Development Program, Fielding Graduate University

**Elizabeth Tien, MD**

Psychiatrist, Los Angeles County Department of Mental Health

**Talia Puzantian, PharmD, BCPP**

Professor, Keck Graduate Institute School of Pharmacy, Claremont, CA



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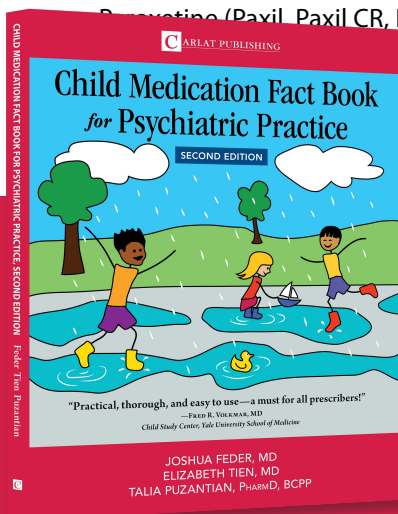
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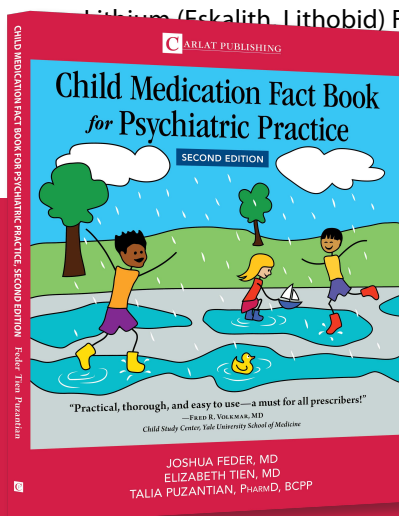
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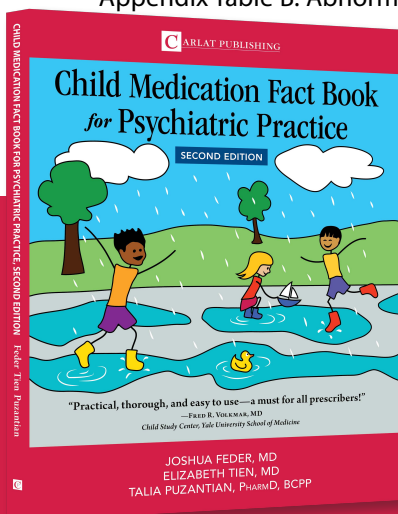
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# Introduction

## HOW TO USE THIS BOOK

We present medication information in four ways:

- *Chapter introductions:* These are guides to general therapeutic categories of child psychopharmacology. There is natural overlap between these areas; however, we hope that our groupings are convenient for quick reference in everyday office practice.
- *Treatment algorithms:* For some specific clinical situations, we created maps to guide you in decision making with an aim to balance efficacy with safety.
- *Quick-scan medication tables:* These are located after the chapter introduction for each therapeutic category and list the very basics: generic and brand names, FDA-approved indications, available strengths, starting doses, and target doses. These tables contain most of the commonly prescribed psychiatric medications in pediatric practice.
- *Medication fact sheets:* In-depth prescribing information for select medications (not all psychiatric medications are covered). There are 76 medication fact sheets in this book. We have included most of the commonly prescribed and newer medications for which there are data and experience in children.

## CHANGES AND ADDITIONS TO THE SECOND EDITION

We've updated the medication fact sheets with newer strengths, formulations, generics, and clinical data where available. We have six new fact sheets, five new tables, and two new appendices. We've also added 14 treatment algorithms to this edition where we thought they made sense. Finally, in this edition we made the shift from *treatment* of (person first) autism spectrum disorder to *supporting* better function with neurodiverse/autistic kids and teens.

## CATEGORIES OF MEDICATIONS

We did our best to categorize medications rationally. However, in some cases a medication can fall into more than one therapeutic category. In such cases, we placed the medication's fact sheet in the category for which it is most often used. If you're having trouble finding a medication in a particular section, look in the index to find its page number.

## MORE ON THE MEDICATION FACT SHEETS

The goal of these fact sheets is to provide need-to-know information that can be easily and quickly absorbed during a busy day of seeing patients. An important goal, therefore, is that all the information should fit on a single page. Please refer to the *PDR (Physicians' Desk Reference)* when you need more in-depth information.

For the most part, each fact sheet contains the following information:

- Bottom line. We begin with a super-condensed summary, including our overall assessment of the drug's value in clinical practice. If you're in a rush, you can get the very basics from this alone.
- Both the brand and generic names.
- Generic availability, denoted with a [G] or (G).
- FDA-approved indications in kids and in adults.
- Off-label uses. We list the more common off-label uses, based on both the medical literature and our own clinical experience. Just because we list a potential use does not imply that we endorse a medication as being particularly effective in that capacity. We are simply alerting you to the fact that there is some evidence for efficacy or at least reports of use.
- Dosage forms, along with available strengths.
- Dosage guidance. We provide recommendations on how to dose medications; these are derived from a variety of sources, including package inserts, clinical trials, and common clinical practice. In other words, don't be surprised when our dosing

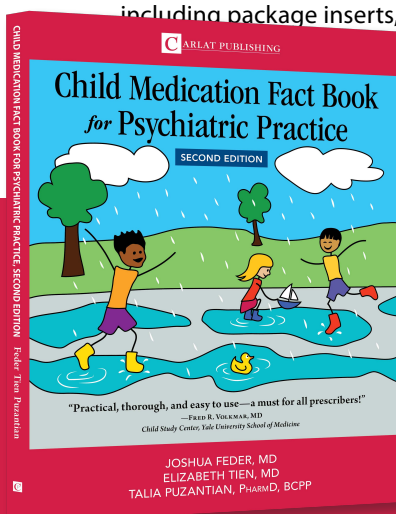
differs from what you find in the *PDR* or other sources such as RxList.

Recommendations. We include the usual routine monitoring measures for each medication. Of course, you should use the "routine" if the clinical picture warrants it.

Prices. Information for a one-month supply of a common dosing regimen was obtained from the *GoodRx* ([www.goodrx.com](http://www.goodrx.com)), accessed in August 2022. These are the prices patients would have to pay if they had no insurance. Because of wide variations in price depending on the pharmacy, in this edition of the book we list prices

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# General Tips on Child and Adolescent Psychopharmacology

Over the course of a career, most of us realize that pediatric psychopharmacology is more art than science, and that much of the knowledge we've acquired over the years has come from our work with patients after completing residency and fellowship. Here are some hard-won tips and pearls that you might find useful in your practice.

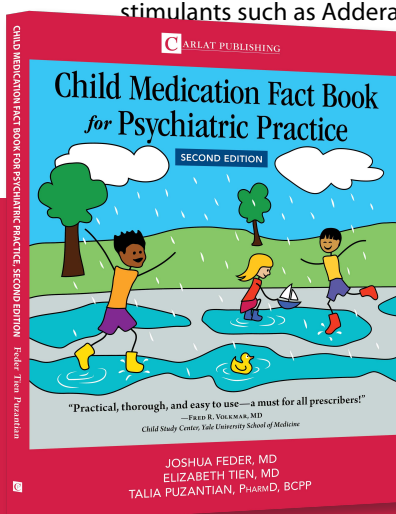
## ASSESSMENT, DIAGNOSIS, AND CASE CONCEPTUALIZATION

- **Target symptoms are king.** Most patients come to us with mixed symptoms from several diagnostic categories. And many symptoms, such as anxiety, show up in ADHD, depression, autistic kids, and others. So while formal diagnosis is helpful for insurance and school advocacy, for treatment it is usually more practical to list and prioritize target symptoms. During the workup and ongoing follow-up, it is very helpful to have a running list of all the presenting and ongoing target symptoms, circling the ones that are the current focus. For instance, in one patient you might be targeting substance use, mood instability, and impulsivity, circling all three, while leaving issues of poor grades, tics, and peer relationships on the list but uncircled—intending to focus on them a bit down the line. Another patient with the same set of symptoms might have different issues to target.
- **Meds are the tail, not the dog.** Medications can be very helpful at times, even life-saving, but they cannot make up for an inadequate overall plan or placement. If a child is laboring under challenging or outright abusive situations at home or school, pills do not fix that. For instance, an autistic teen was brought in for a medication evaluation for irritability and “acting out.” On evaluation, his treatment plan included “training for pre-vocational skills”—and his acting out turned out to be in part a rebellion from years of being subjected to tasks such as sorting silverware. The answer in this case was to rethink the goals that had been imposed on the patient as part of the treatment plan, and not to provide chemical restraint.
- **Informed consent is your friend.** Use informed consent—diagnosis, target symptoms, discussion of options, etc—to guide a rational and ongoing conversation with families. See the appendices for additional tips on this process.
- **Good care demands time.** You know this, and you are probably fighting for time—time to see the patient; talk to family, therapists, and teachers; review records; call labs; and whatever else you need to do to care for your patient. When we are taken to task about care, we are asked such things as: “Did you contact the school?” “Did you call the lab?” We need time to do these things, and we deserve to be paid for that time too. Advocate for more time for all the elements of patient care.
- **Keep development in mind.** One of the joys of our field is that we have the opportunity to see the range of changes that occur developmentally and to explain to parents, teachers, and colleagues that these are not “symptoms.” For example, an active toddler does not necessarily have ADHD. A school-aged child with a vivid fantasy life is usually not psychotic.
- **Always consider the possibility of abuse.** It is estimated that 1/4 to 1/3 of girls and 1/6 of boys are sexually abused before age 18; always assess for sexual and physical abuse as well as neglect. Ask about discipline and supervision as a part of your formal assessment. Parents often want help in managing their frustration (and perhaps their own difficulties with mood, substances, etc), and this is an opportunity to be of great assistance.
- **Drug and substance use are common.** We should always ask teens (and even tweens) about substance use. This includes the usual things like tobacco, alcohol, marijuana, and other drugs; prescribed medications such as stimulants and opiates; over-the-counter medications such as dextromethorphan, antihistamines, and pseudoephedrine; readily available inhalants such as glue, gasoline, and many others; non-prescribed opiates; CBD; and newer drugs of abuse. In addition, consider substances not yet or newly criminalized such as kratom, spice, and others. As of this writing, fentanyl is killing more and more kids, laced into marijuana, heroin, and many kinds of faked pills including opiates such as OxyContin, stimulants such as Adderall, and benzodiazepines such as Xanax.

**with a safety check than anything else we do.** Talk with parents about locking up alcohol, over-the-counter meds), and hazardous household products. We often add an admonition to lock records, and sharp knives from homes as part of a safety check. Ask about sunscreen, hydration, bits of the patient and the family. Natural disasters are becoming more common. Asking about tsunamis, and tsunami plans makes sense for proactive health care providers.

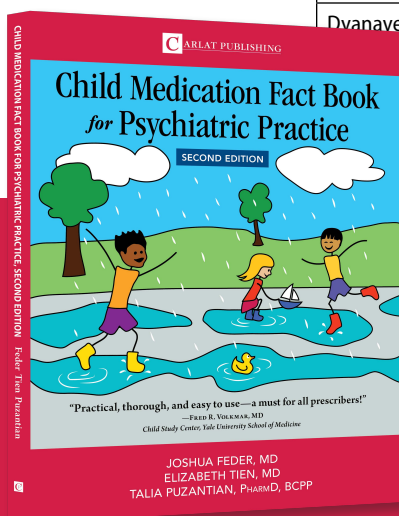
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**TABLE 2: Relative Equivalency and Conversion Guide for Stimulants<sup>1</sup>**

Methylphenidates	
Alternative Formulation	Regular Methylphenidate Equivalent
Adhansia XR 25 mg QAM	5 mg IR TID
Adhansia XR 50 mg QAM	10 mg IR TID
Aptensio XR 10 mg QAM	5 mg IR BID or 10 mg ER QAM
Concerta 18, 27, 36, 54 mg tablets	10–15, 15–20, 20–30, 30–45 mg/day, respectively; use 72 mg Concerta for 45–60 mg/day
Cotempla XR-ODT 8.6, 17.3, 25.9 mg tablets	ER 10, 20, 30 mg, respectively
Daytrana patch 10 mg	5 mg IR BID or 10 mg ER QAM
Focalin 5 mg BID	10 mg IR BID
Focalin XR 10 mg QAM	20 mg IR QAM
Jornay PM 20 mg QPM	4 mg IR TID
Jornay PM 100 mg QPM	20 mg IR TID
Quillichew ER 20 mg QAM	10 mg IR BID or 20 mg ER QAM
Quillichew ER 30 mg QAM	15 mg IR BID or 30 mg ER QAM
Quillichew ER 40 mg QAM	20 mg IR BID or 40 mg ER QAM
Quillivant XR 10 mg (2 mL) QAM	5 mg IR BID or 10 mg ER QAM
Quillivant XR 20 mg (4 mL) QAM	10 mg IR BID or 20 mg ER QAM
Quillivant XR 30 mg (6 mL) QAM	15 mg IR BID or 30 mg ER QAM
Quillivant XR 40 mg (8 mL) QAM	20 mg IR BID or 40 mg ER QAM
Amphetamines	
Alternative Formulation	Regular Mixed Amphetamine Salts Equivalent
Adzenys XR ODT 3.1 mg QAM	2.5 mg IR BID or 5 mg ER QAM
Adzenys XR ODT 6.3 mg QAM	5 mg IR BID or 10 mg ER QAM
Adzenys XR ODT 9.4 mg QAM	7.5 mg IR BID or 15 mg ER QAM
Adzenys XR ODT 12.5 mg QAM	10 mg IR BID or 20 mg ER QAM
Adzenys XR ODT 15.7 mg QAM	12.5 mg IR BID or 25 mg ER QAM
Adzenys XR ODT 18.8 mg QAM	15 mg IR BID or 30 mg ER QAM
Adzenys ER 3.125 mg (2.5 mL) QAM	2.5 mg IR BID or 5 mg ER QAM
Adzenys ER 6.25 mg (5 mL) QAM	5 mg IR BID or 10 mg ER QAM
Adzenys ER 9.375 mg (7.5 mL) QAM	7.5 mg IR BID or 15 mg ER QAM
Adzenys ER 12.5 mg (10 mL) QAM	10 mg IR BID or 20 mg ER QAM
Adzenys ER 15.625 mg (12.5 mL) QAM	12.5 mg IR BID or 25 mg ER QAM
Adzenys ER 18.75 mg (15 mL) QAM	15 mg IR BID or 30 mg ER QAM
Dyanavel XR 6.25 mg (2.5 mL)	5 mg IR BID or 10 mg ER QAM
Dyanavel XR 12.5 mg (5 mL)	10 mg IR BID or 20 mg ER QAM
Dyanavel XR 18.75 mg (7.5 mL)	15 mg IR BID or 30 mg ER QAM
Dyanavel XR 25 mg QAM	20 mg ER QAM
Dyanavel XR 30 mg QAM	5 mg IR BID or 10 mg ER QAM
Dyanavel XR 50 mg QAM	10 mg IR BID or 20 mg ER QAM



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## ATOMOXETINE (Strattera) Fact Sheet [G]

### BOTTOM LINE:

*Advantages:* Unlike stimulants, atomoxetine has no abuse potential, causes less insomnia and anxiety, and is unlikely to worsen tics.

*Disadvantages:* It is generally less effective than stimulants, and takes longer to work (two to four weeks).

### PEDIATRIC FDA INDICATIONS:

**ADHD** (6–17 years).

### ADULT FDA INDICATIONS:

ADHD.

### OFF-LABEL USES:

Treatment-resistant depression.

### DOSAGE FORMS:

**Capsules (G):** 10 mg, 18 mg, 25 mg, 40 mg, 60 mg, 80 mg, 100 mg.

### PEDIATRIC DOSAGE GUIDANCE:

- Children >70 kg: Start 40 mg QAM for three days, ↑ to 80 mg QAM, may ↑ to 100 mg/day after two to four weeks if needed (max 100 mg/day); may divide doses >40 mg/day (divided dosing in morning and late afternoon/early evening).
- Children <70 kg: Start 0.5 mg/kg QAM for three days, ↑ to 1.2 mg/kg QAM, may ↑ to max 1.4 mg/kg/day or 100 mg/day (whichever is less) after two to four weeks, if needed; may divide doses >0.5 mg/kg/day (divided dosing in morning and late afternoon/early evening).

**MONITORING:** BP/P, LFTs.

**COST:** \$

### SIDE EFFECTS:

- Most common: Headache, abdominal pain, decreased appetite, fatigue, nausea, vomiting.
- Serious but rare: Class warning for suicidal ideation in children and teens. Severe hepatic injury including increased hepatic enzymes (up to 40 times normal) and jaundice (bilirubin up to 12 times upper limit of normal). Increased blood pressure (↑ 15–20 mmHg) and heart rate (↑ 20 bpm).

### MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:

- Selective norepinephrine reuptake inhibitor (NRI).
- Metabolized primarily via CYP2D6; t<sub>1/2</sub>: 5 hours.
- Avoid use with MAOIs. Exercise caution with 2D6 inhibitors such as fluoxetine, paroxetine, and quinidine (increased atomoxetine serum levels); use slower titration and do not exceed 80 mg/day in presence of 2D6 inhibitors or in 2D6 poor metabolizers.

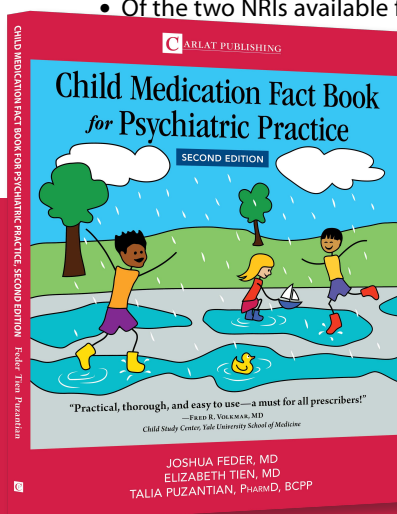
### EVIDENCE AND CLINICAL PEARLS:

- Effective and FDA approved for ADHD; however, several studies clearly show it does not produce as robust of a treatment effect as stimulants.
- QAM dosing is as effective as BID, but BID dosing has better GI tolerability. Can also be dosed at bedtime if it causes fatigue.
- Appears to be more effective in improving attention than in controlling hyperactivity.
- Of the two NRIs available for ADHD, atomoxetine is cheaper than viloxazine.

known as “tomoxetine”; however, the FDA requested that the name be changed because the old name could lead to dispensing errors.

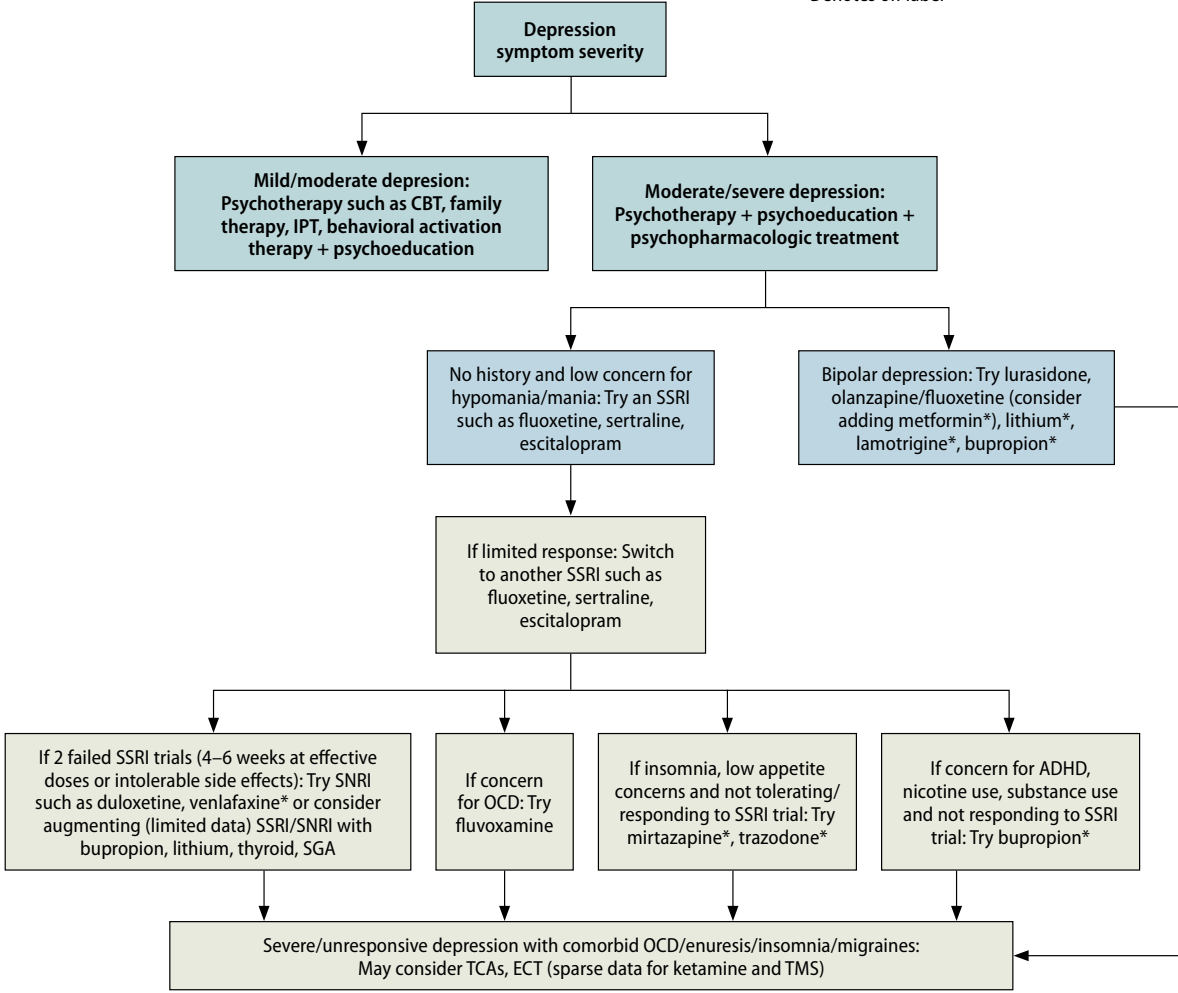
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# Depressive Disorders Treatment Algorithm for Children and Adolescents

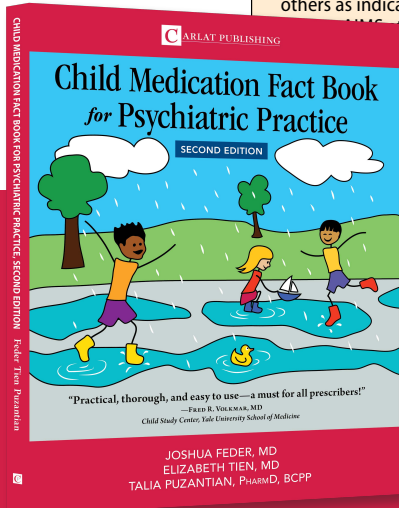
\*Denotes off label



Antidepressants

- Use non-pharmacologic approaches first when possible to help reduce use of medication
- See text and tables for specific age-related guidance
- If using antidepressants, discuss potential side effects including rare but possible increase in behavioral activation or suicidal thinking
- If using antipsychotics, check weight and labs (lipids, HbA1c, others as indicated) at baseline, 12 weeks, and yearly or sooner
- If using mood stabilizers, check labs at baseline and every 6 months or sooner, and every 12 months, consider gradual taper and discontinuation of medications

**Key**  
 CBT – Cognitive behavioral therapy  
 IPT – Interpersonal psychotherapy  
 SGA – Second-generation antipsychotic  
 TCA – Tricyclic antidepressants  
 TMS – Transcranial magnetic stimulation therapy



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## FLUOXETINE (Prozac, Prozac Weekly) Fact Sheet [G]

### BOTTOM LINE:

Consider fluoxetine a first-line agent for kids with depression and anxiety disorders.

### PEDIATRIC FDA INDICATIONS:

**Major depression** (8+ years); **OCD** (7+ years).

### ADULT FDA INDICATIONS:

Major depression; OCD; panic disorder; bulimia; PMDD (as Sarafem).

### OFF-LABEL USES:

PTSD; social anxiety; cataplexy.

### DOSAGE FORMS:

- **Capsules (G):** 10 mg, 20 mg, 40 mg.
- **Tablets (G):** 10 mg, 20 mg, 60 mg.
- **Delayed-release capsules (Prozac Weekly, [G]):** 90 mg.
- **Oral solution (G):** 20 mg/5 mL.

### PEDIATRIC DOSAGE GUIDANCE:

- Ages 6–7: Start 5 mg QD, increase by 5 mg/day increments weekly; max 30 mg/day.
- Ages 8–17: Start 10 mg QD, increase by 10 mg/day increments weekly; max 60 mg/day.
- Many children and adolescents will show good treatment response at 10 mg/day.
- Most will respond best to morning dosing given its activating effects.

**MONITORING:** No routine monitoring recommended unless clinical picture warrants.

**COST:** \$; DR capsule: \$\$

### SIDE EFFECTS:

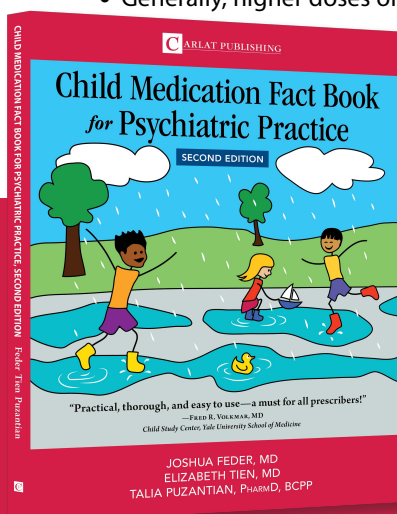
- Most common: Nausea, insomnia, anxiety, sexual side effects, apathy, headache.
- Serious but rare: Hyponatremia, mainly in the elderly; gastrointestinal bleeding, especially when combined with NSAIDs such as ibuprofen.

### MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:

- Selective serotonin reuptake inhibitor.
- Metabolized primarily through CYP2D6; potent CYP2C9/19 and 2D6 inhibitor; moderate CYP3A4 inhibitor;  $t_{1/2}$ : 4–6 days (9 days for norfluoxetine metabolite).
- Avoid use with MAOIs (allow a five-week washout period if switching to MAOI); avoid other serotonergic agents (serotonin syndrome). Caution with substrates of 2C9/19 and 2D6.

### EVIDENCE AND CLINICAL PEARLS:

- Most studied SSRI in kids and the only antidepressant approved for treating depression in younger children.
- Two large randomized double-blind placebo-controlled trials that showed significantly greater efficacy for depression compared to placebo led to FDA indication in kids 8 and older.
- Fluoxetine is favored in patients who could use some activation; it is most likely to cause insomnia, anxiety, and decreased appetite.
- Generally, higher doses of SSRIs are required for treating OCD.



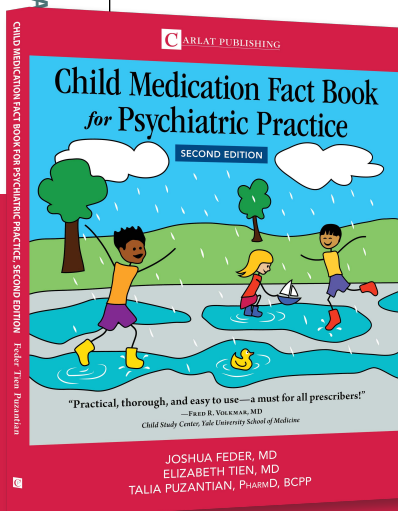
aphic, shrimp exposed to traces of fluoxetine swim in brighter areas, making them more  
fact is not so fun for the shrimp.

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TABLE 9: Anxiolytics and Hypnotics

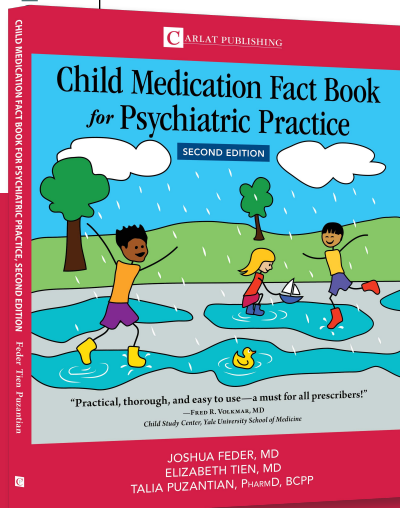
Generic Name (Brand Name) Year FDA Approved <i>[G] denotes generic availability</i>	Relevant FDA Indication(s) ( <b>Pediatric indications in bold</b> )	Available Strengths (mg)	Onset of Action (oral) <sup>2</sup>	Half-Life (hours)	Duration of Action (hours)	Usual Pediatric Dosage Range (starting–max) (mg)	Comments
Alprazolam [G] (Xanax, Xanax XR) 1981	GAD Panic disorder	Tablet: 0.25, 0.5, 1, 2 ER tablet: 0.5, 1, 2, 3 ODT: 0.25, 0.5, 1, 2 Liquid: 1 mg/mL	30 min (IR, ODT) 1–2 hrs (XR)	11–16	3–4 (IR) 10 (XR)	0.375–3.5 mg/day divided TID	NOT RECOMMENDED. Very limited data showing no benefit over placebo in GAD or school refusal/separation anxiety.
Buspirone [G] (BuSpar <sup>1</sup> ) 1986	GAD	Tablet: 5, 7.5, 10, 15, 30	1–2 wks+	2–3	N/A	5–20 TID	Very limited data showing no benefit over placebo in GAD.
Clomipramine [G] (Anafranil) 1989	<b>OCD (10+ yrs)</b>	25, 50, 75	1–2 wks+	32	N/A	25–200 QHS	Use for OCD if SSRI fails or is not tolerated.
Clonazepam [G] (Klonopin, Klonopin Wafers <sup>1</sup> ) 1975	<b>Absence, petit mal, akinetic, and myoclonic seizures (myoclonia) (≤10 yrs)</b> Panic disorder; insomnia (off label)	Tablet: 0.5, 1, 2 ODT: 0.125, 0.25, 0.5, 1, 2	1 hr	20–80	4–8	0.125–1 BID	NOT RECOMMENDED. Very limited data showing no benefit over placebo in GAD or social phobia.
Clonidine [G] (Catapres) 1974	<b>ER (Kapvay) approved for ADHD (6–17 yrs);</b> anxiety (off label)	IR: 0.1, 0.2, 0.3 ER: 0.1, 0.2	1 hr	12–16	4–6	0.05–0.4 QHS or divided doses	Used especially when comorbid ADHD or tics; do not stop an ongoing dosage abruptly (rebound hypertension).
Diazepam [G] (Valium, Diastat) 1963	<b>Seizures and spasm (infants+, but neonate off label);</b> GAD; alcohol withdrawal; <b>anxiety (short term) (0.5+ yrs)</b>	Tablet: 2, 5, 10 Liquid: 5 mg/5 mL, 5 mg/mL Injection: 5 mg/mL Rectal gel: 2.5, 5, 7.5, 10, 12.5, 15, 17.5, 20	30 min	>100	4–6	0.04–0.2 mg/kg Q2–4h PRN (0.5–12 yrs) 2–10 mg BID–QID (≥13 yrs)	NOT RECOMMENDED for anxiety or insomnia. Typically used as one-time dose in emergency, dental, or seizure settings.
	<b>Insomnia (12+ yrs); allergy (20+ lbs); motion sickness (6+ yrs)</b>	Capsule: 25, 50 Tablet: 25 Liquid: 12.5 mg/mL	1 hr	3.5–9	4–6	6.25–50 QHS	Some benefit in pediatric patients; caution for paradoxical reaction.
	<b>Insomnia (sleep</b>	Tablet: 3, 6	1 hr	15	4–6	3–50 QHS	Helpful for sleep; caution for



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Generic Name (Brand Name) Year FDA Approved <i>[G] denotes generic availability</i>	Relevant FDA Indication(s) (Pediatric indications in bold)	Available Strengths (mg)	Onset of Action (oral) <sup>2</sup>	Half-Life (hours)	Duration of Action (hours)	Usual Pediatric Dosage Range (starting–max) (mg)	Comments
Eszopiclone [G] (Lunesta) 2004	Insomnia (sleep onset and sleep maintenance)	Tablet: 1, 2, 3	30 min	6	6–8	1–3 QHS	NOT RECOMMENDED. No benefit in pediatric patients.
Gabapentin [G] (Neurontin) 1993	Anxiety <b>Seizures (3+ yrs)</b>	Capsule: 100, 300, 400 Tablet: 600, 800 Oral solution: 50 mg/mL ER tablet: 300, 600	1–2 hrs	5–7	6–8	100 QHS–300 TID	Very limited data; reserve for severe anxiety or comorbidity; caution regarding misuse.
Guanfacine IR [G] (Tenex) 1986	ADHD (only ER approved)	1, 2	1 hr	13–14	N/A	0.5–4 QD (do not increase faster than 1 mg/wk)	Very limited data suggesting improvement in generalized, separation, or social anxiety disorder; do not stop abruptly (rebound hypertension); not a 1:1 conversion from IR; do not give with high-fat meals; use especially when comorbid ADHD.
Guanfacine ER [G] (Intuniv) 2009	<b>ADHD (6–17 yrs)</b>	1, 2, 3, 4	1–2 hrs	13–14	N/A	1–4 QD (do not increase faster than 1 mg/wk) (adolescents 7 mg/day max)	
Hydroxyzine [G] (Atarax, Vistaril) 1956	<b>Anxiety (6+ yrs); pruritis (&lt;6 yrs by weight)</b>	Capsule: 25, 50, 100 Tablet: 10, 25, 50 Liquid: 10 mg/5 mL Injection: 25 mg/mL, 50 mg/ mL	1 hr	20–25	4–6	12.5–100 QHS	Commonly used and helpful for inducing sleep but may cause grogginess, delirium, or disinhibition.
Imipramine [G] Tofranil brand discontinued; generic only 1984	MDD; <b>nocturnal enuresis (6+ yrs)</b>	10, 25, 50, 75, 100, 125, 150	1–2 wks+	11–25	N/A	10–100 QHS	May be helpful for sleep; caution for daytime sedation, cardiac arrhythmias.
Lorazepam [G] (Ativan, Loreev XR) 1977	GAD; insomnia (off label); <b>anxiety (short term) (12+ yrs)</b>	Tablet: 0.5, 1, 2 ER capsule: 1, 2, 3 Liquid: 2 mg/mL Injection: 2 mg/mL, 4 mg/mL	30–60 min	10–20	4–6	0.05 mg/kg Q4–8h PRN; max 2 mg/dose	NOT RECOMMENDED. No benefit in pediatric patients, except in catatonia.
	MDD	Tablet: 7.5, 15, 30, 45 ODT: 15, 30, 45	1–2 wks+	20–40	N/A	7.5–45 QHS	May be helpful for sleep; caution for daytime sedation, increased appetite.
	PTSD (off label)	Capsule: 1, 2, 5	1–2 hrs	2–3	4–6	1–10 mg/day QHS or divided BID	Minimal data but may consider in PTSD-associated nightmares or sleep disturbances; monitor



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# PRAZOSIN (Minipress) Fact Sheet [G]

## **BOTTOM LINE:**

Although there are only minimal data, consider prazosin for PTSD in kids, especially for PTSD-associated sleep disturbances and nightmares, but monitor BP.

## **PEDIATRIC FDA INDICATIONS:**

None.

## **ADULT FDA INDICATIONS:**

Hypertension.

## **OFF-LABEL USES:**

PTSD; alcohol use disorder.

## **DOSAGE FORMS:**

**Capsules (G):** 1 mg, 2 mg, 5 mg.

## **PEDIATRIC DOSAGE GUIDANCE:**

- PTSD (off-label): Doses studied are 0.02–0.3 mg/kg given at bedtime; titrate dose slowly to minimize possibility of “first-dose” orthostatic hypotension. Start 1 mg QHS x3 days, increase slowly based on response. Target 1–5 mg/day; doses up to 15 mg daily studied in adults.
- May dose-divide BID to target daytime PTSD-associated arousal symptoms.

## **MONITORING:** BP.

## **COST:** \$

## **SIDE EFFECTS:**

- Most common: Somnolence, dizziness, headache, weakness.
- Serious but rare: Orthostasis and syncope; prolonged erections and priapism have been reported.

## **MECHANISM, PHARMACOKINETICS, AND DRUG INTERACTIONS:**

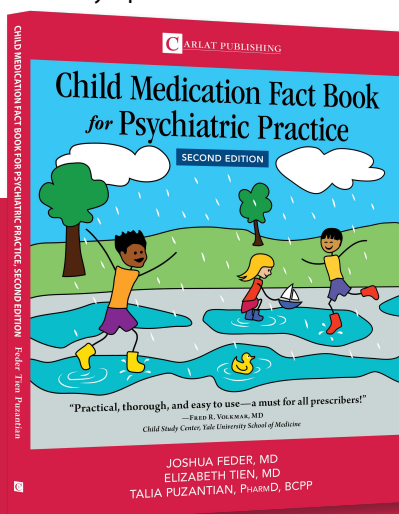
- Alpha-1 adrenergic receptor antagonist.
- Metabolism primarily hepatic (non-CYP450);  $t_{1/2}$ : 2–3 hours.
- Caution with other antihypertensive agents, diuretics, and PDE5 inhibitors (eg, Viagra) that may have additive hypotensive effects.

## **EVIDENCE AND CLINICAL PEARLS:**

- Initial studies in adults showed improvement in trauma-related nightmares and sleep quality when dosed at bedtime. Subsequent randomized controlled trials have shown positive effects on daytime PTSD symptoms also when dosed BID.
- A retrospective chart review of 34 kids (5–18 years) with PTSD suggested prazosin is well tolerated and associated with improvements in nightmares and sleep.
- Prazosin failed to work in a more recent controlled trial of military veterans with chronic PTSD. This was the largest study to date on this drug, but it had some flaws: The placebo rate was unusually high, and the investigators may have enriched their sample with patients who were less likely to respond to prazosin.

## **FUN FACT:**

Prazosin is an effective drug for kids in the treatment of serious scorpion envenomations with significant sympathetic symptoms.



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# Appendices

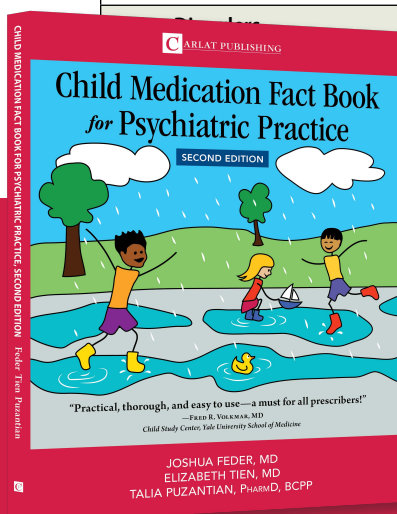
## APPENDIX A: RATING SCALES

Standardized rating scales can be important tools during the clinical assessment and treatment process, helping to support or clarify diagnostic considerations, bring to light new areas of concern, and track symptoms. Rating scales are not diagnostic or intended to replace a thorough diagnostic interview. Always review the information provided about the scales you use to understand their benefits and limitations. We've included a list of commonly used scales that are in the public domain. See also [www.thecarlatreport.com/the-carlat-child-psychiatry-report/using-clinical-scales-in-child-psychiatry/](http://www.thecarlatreport.com/the-carlat-child-psychiatry-report/using-clinical-scales-in-child-psychiatry/)

If you are specifically looking for a diagnostic tool, consider the Kiddie Schedule for Affective Disorders and Schizophrenia (K-SADS), a semi-structured interview for ages 6–18 years that has been validated in research and clinical settings: [www.pediatricbipolar.pitt.edu/sites/default/files/KSADS\\_DSM\\_5\\_SCREEN\\_Final.pdf](http://www.pediatricbipolar.pitt.edu/sites/default/files/KSADS_DSM_5_SCREEN_Final.pdf)

**APPENDIX TABLE A: Rating Scales**

Resource	Website
<b>Abnormal Involuntary Movement Scale (AIMS) and Other Movement Scales (see Appendix B)</b>	
Abnormal Involuntary Movement Scale (AIMS)	<a href="http://www.tinyurl.com/4m9hwm89">www.tinyurl.com/4m9hwm89</a>
Yale Global Tic Severity Scale (YGTSS)	<a href="http://www.tinyurl.com/2pf3rws">www.tinyurl.com/2pf3rws</a>
The Massachusetts General Hospital Hair Pulling Scale	<a href="http://www.tinyurl.com/z78p6ujy">www.tinyurl.com/z78p6ujy</a>
Trichotillomania Scale for Children, Child Version (TSC-C)	<a href="http://www.tinyurl.com/uylvhkvey">www.tinyurl.com/uylvhkvey</a>
<b>ADHD</b>	
Child Attention Profile	<a href="http://www.tinyurl.com/bkpw4vpp">www.tinyurl.com/bkpw4vpp</a>
Conners' Parent Rating Scale—Revised	<a href="http://www.tinyurl.com/3253rara">www.tinyurl.com/3253rara</a>
SNAP-IV	<a href="http://www.tinyurl.com/523kuzu3">www.tinyurl.com/523kuzu3</a>
NICHQ Vanderbilt Assessment Scales	<a href="http://www.tinyurl.com/4mzumfds">www.tinyurl.com/4mzumfds</a>
<b>Anxiety and Related Disorders</b>	
Generalized Anxiety Disorder 7 (GAD-7)	<a href="http://www.tinyurl.com/yc5fy2f9">www.tinyurl.com/yc5fy2f9</a>
Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)	<a href="http://www.tinyurl.com/43zue6b">www.tinyurl.com/43zue6b</a>
Screen for Child Anxiety Related Disorders (SCARED)	<a href="http://www.tinyurl.com/vyerry7">www.tinyurl.com/vyerry7</a>
Spence Children's Anxiety Scale (SCAS)—Preschool Version	<a href="http://www.tinyurl.com/34at67ms">www.tinyurl.com/34at67ms</a>
<b>Autism and Related Challenges</b>	
Childhood Autism Rating Scale (CARS)	<a href="http://www.tinyurl.com/5c78ywsj">www.tinyurl.com/5c78ywsj</a>
Childhood Autism Spectrum Test (CAST)	<a href="http://www.tinyurl.com/bddjnv2">www.tinyurl.com/bddjnv2</a>
Greenspan Social-Emotional Growth Chart (part of the Bayley Scales, 0–42 months)	<a href="http://www.tinyurl.com/yuzkn6ty">www.tinyurl.com/yuzkn6ty</a>
Modified Checklist for Autism in Toddlers (M-CHAT)	<a href="http://www.tinyurl.com/yk3jr5ed">www.tinyurl.com/yk3jr5ed</a>
Parent's Observations of Social Interactions (POSI)	<a href="http://www.tinyurl.com/ycycybj">www.tinyurl.com/ycycybj</a>
<b>Depression</b>	
Children's Depression Inventory (CDI)	<a href="http://www.tinyurl.com/yckxsux2">www.tinyurl.com/yckxsux2</a>
Children's Depression Questionnaire (EDY-Q; 8–13 years)	<a href="http://www.tinyurl.com/navfcjhb">www.tinyurl.com/navfcjhb</a>
Children's Depression Inventory for Primary Care (ESP)	<a href="http://www.tinyurl.com/2s3cz3b6">www.tinyurl.com/2s3cz3b6</a>
Children's Depression Inventory (COFF)	<a href="http://www.tinyurl.com/nnuvjv6z">www.tinyurl.com/nnuvjv6z</a>



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