Pediatric Psychopharmacology Reference Cards

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

DEPARTMENT OF PSYCHIATRY

Updated October 2023

Antidepressants¥ (1/2)

Generic (Trade)	**S: start dose (mg)** **T: target dose (mg/day)**	**Titration Schedule**	**Formulations (mg)**	**t 1/2 (hr)**	**FDA Approved in Youth**[1]	**N: notes; S: side effects; R: risks** **ALL: BLACK BOX WARNING FOR SI**
Fluoxetine (Prozac)	**S:** 5 – 10 **T:** 20 – 60§	5 – 10 mg q 2 weeks	**tab:** 10, 20, 60 **cap:** 10, 20, 40 **weekly cap:** 90 **liq:** 4mg/mL	96 – 384	≥7y OCD ≥8y MDD ≥10y Bipolar depression, in combo w/ olanzapine (Puvule capsule only)	**N:** Long titration / washout = self-tapering **N:** CYP 2D6 inhibition **S:** Behaviorally activating
Sertraline (Zoloft)	**S:** 2.5 – 5 **T:** 50 – 200§	25 mg q 2 weeks	**tab:** 20, 50, 100 **liq:** 20mg/mL	26	≥6y OCD	
Escitalopram (Lexapro)	**S:** 2.5 – 4 **T:** 10 – 30	5 - 10 mg q 2 weeks	**tab:** 5, 10, 20 **liq:** 1mg/mL	27 – 32	≥12y MDD ≥7y GAD	**N:** Few CYP interactions
Fluvoxamine (Luvox)	**S:** 12.5 – 25 **T:** 50 – 200§	25 mg q 2 weeks	**tab:** 25, 50, 100	16	≥8y OCD (immediate release only)	**N:** CYP 2C9 inhibition
Citalopram (Celexa)	**S:** 5 – 10 **T:** 20 – 40§	10 mg q 2 weeks	**tab:** 10, 20, 40 **liq:** 2mg/mL	35	--	**N:** Few CYP interactions **R/S:** ↑QTc risk >40mg
Bupropion (Wellbutrin)	**S:** 37.5 – 75 **T:** 150 – 300	37.5 – 75 mg q 2 weeks	**tab:** 75, 100 **er:** 100, 150, 174, 200, 300, 348, 450, 522	21 – 37	--	**N:** Behaviorally activating; used to augment SSRI, treat ADHD **R/S:** ↑Anxiety, ↑SZ risk
Trazodone (Desyrel)	**S:** 25 **T:** 50 – 100	25 mg weekly	**tab:** 50, 100, 150, 300 **er:** 150, 300	10	--	**N:** Use for insomnia **R/S:** Priapism
Mirtazapine (Remeron)	**S:** 7.5 – 15 **T:** 15 – 30	7.5 mg q 2 weeks	**tab:** 7.5, 15, 30, 45 **dis:** 15, 30, 45	20 – 40	--	**N:** Used to augment SSRI, treat insomnia **S:** Stimulates appetite **R:** ↑Appetite / wgt gain
Duloxetine (Cymbalta)	**S:** 20 **T:** 30 – 60	20 mg q 2 weeks	**dr:** 20, 30, 40, 60	12	≥7y GAD	**N:** Limited evidence supporting use for depression in children **S:** nausea

¥Some also used for anxiety and chronic pain, §Higher doses needed for OCD. CYP = Cytochrome P450 proteins; **tab** = tablet; **cap** = capsule; **liq** = oral liquid, **er** = extended release, **dr** = delayed release.
[1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Antidepressants¥ (2/2)

Generic (Trade)	S: start dose (mg) T: target dose (mg/day) TDD: total daily dose	Titration Schedule	Formulations (mg)	t 1/2 (hr)	FDA Approved in Youth[1]	N: notes; S: side effects; R: risks ALL: BLACK BOX WARNING FOR SI
Paroxetine (Paxil)	S: 5 –10 T: 10 – 40	5 – 10 mg q 2 weeks	tab: 10, 20, 30, 40 er: 12.5, 25, 37.5 liq: 2mg/mL	21	--	N: ↓Lit. support in minors; anxiolytic, CYP interaction R: ↑SI risk among SSRIs
Venlafaxine (Effexor)	S: 25 – 37.5 T: 150 – 300	25 mg q 2 weeks	tab: 25, 37.5, 50, 75, 100 er cap: 37.5, 75, 150 er tab: 37.5, 75, 150, 225	5 – 11	--	N: ↓Lit. support in minors S/R: Hypertension risk; Marked withdrawal (vertigo, n/v, paresthesia, headache) on abrupt discontinuation
Desvenlafaxine (Pristiq)	S: 50 T: 100	25 mg q 2 weeks	er tab: 25, 50, 100	11	--	N: ↓Lit. support in minors S: Hypertension risk
Buspirone (Buspar)	S: 2.5 – 5 BID T: 5 – 15 BID	5 mg q 2 – 3 days	tab: 5, 7.5, 10, 15, 30	2 – 4	--	N: 3 – 6 weeks for effect Substrate of CYP3A4
Vilazodone (Viibryd)	S: 10 T: 40	10 mg q 2 weeks	tab: 10, 20, 40, 10-20	25	--	N: ↓Lit. support in minors SSRI + partial 5HT1a agonist; substrate of CYP3A4
Gabapentin (Neurontin)	S: 100mg BID up to 10 – 15mg/kg/d divided TID; Max: 40mg/kg/d up to 2400mg TDD divided TID	100 – 300 mg q 3 – 4 days	cap: 100, 300, 400 tab: 600, 800 er: 300, 600 liq: 250mg/5ml	5 – 7	--	N: Used for anxiety and chronic pain R: Decrease dosing in renal impairment
Vortioxetine (Trintellix)	S: 5 – 10 T: 20	5 mg q 2 weeks	tab: 5, 10, 20	66	--	N: ↓Lit. support in minors

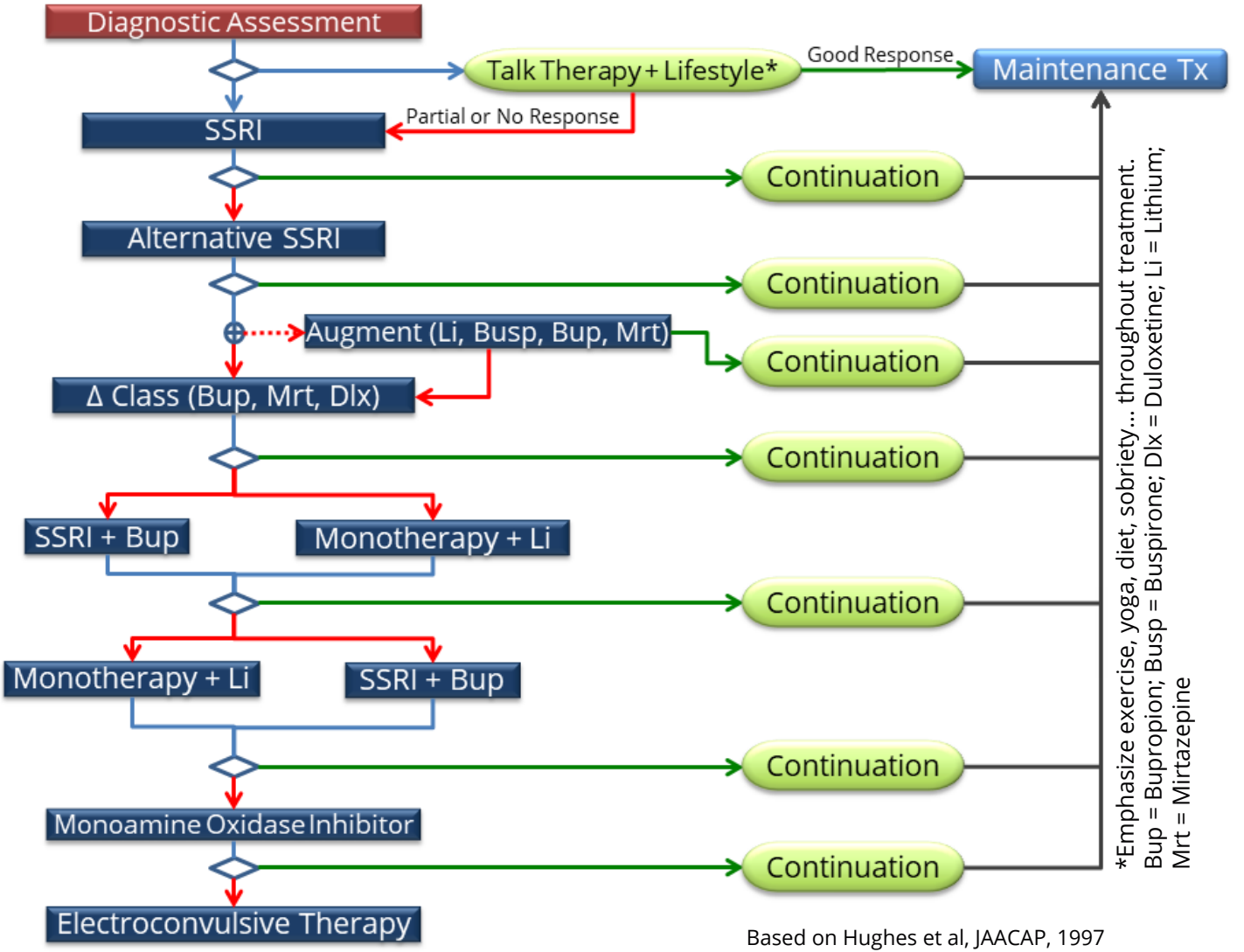
¥Some also used for anxiety and chronic pain, §Higher doses needed for OCD. CYP = Cytochrome P450 proteins; **tab** = tablet; **cap** = capsule; **liq** = oral liquid, **er** = extended release, **dr** = delayed release. [1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Antidepressant Dose Equivalents

Amitriptyline	122 mg/day	**Desipramine**	196 mg/day	**Fluoxetine**	40 mg/day	**Mirtazapine**	51 mg/day	**Sertraline**	99 mg/day
Bupropion	349 mg/day	**Doxepin**	140 mg/day	**Fluvoxamine**	143 mg/day	**Nortriptyline**	100 mg/day	**Trazodone**	401 mg/day
Citalopram	36 mg/day (imputed)	**Escitalopram**	18 mg/day	**Imipramine**	137 mg/day	**Paroxetine**	34 mg/day	**Venlafaxine**	149 mg/day
Clomipramine	116 mg/day								

(Hayasaka et al., *J Affective Disorders*, 2015)

Depression Medication Algorithm



Based on Hughes et al, JAACAP, 1997

Antipsychotics/Neuroleptics (1/2)

Generic (Trade) RDE	S: start dose (mg) T: target dose (mg/day)	Titration Schedule	Formulations (mg)	Peak (hr)	t 1/2 (hr)	FDA Approv in Youth[1]	N: notes; S: side effects; R: risks
Risperidone (Risperdal) 2	S: 0.25 – 1 T: 0.5 – 4	0.25 – 0.5 mg weekly	ir: 0.25, 0.5, 1, 2, 3, 4 liq: 1 mg/ml sl: 0.5, 1, 2, 3, 4 dp: 12.5, 25, 37.5, 50 mg	1 – 2	20 – 30	≥13y schizophrenia ≥10y mania/mixed ≥5y irritable (ASD; oral only)	R: ↑Prolactin, metabolic
Aripiprazole (Abilify) 7.5	S: 2 – 5 T: 2 – 30	2 – 5 mg q 2 weeks	ir: 2, 5, 10, 15, 20, 30 liq: 1 mg/ml sl: 10, 15 im: 7.5mg/ml	3 – 5	50 – 72	≥6y agitation (ASD) ≥10y bipolar mania ≥13y schizophrenia ≥6y Tourette's	R: Akathisia
Ziprasidone (Geodon) 60	S: 20 qd T: 20 – 60 bid	20 mg q 3 – 4 days	ir: 20, 40, 60, 80 im: 20mg/ml	5	5 – 7	--	N: Take with food R: ↑QTc, akathisia
Quetiapine (Seroquel) 75	S: 12.5 – 50 T: 50 – 750	12.5 – 25 mg q 3 – 4 days	ir: 25, 50, 100, 200, 300, 400 xr: 50, 150, 200, 300, 400	2	6 – 7	≥13y schizophrenia (ir formulation) ≥10y bipolar	S: Sedation
Olanzapine (Zyprexa, Zydis) 5	S: 2.5 – 5 T: 2.5 – 20	2.5 mg q 2 weeks	ir: 2.5, 5, 7.5, 10, 15, 20 sl: 5, 10, 15, 20 (Zydis) im: 10mg vial dp: 210, 300, 405 mg	6	21 – 54	≥13y schizophrenia ≥10y mania/mixed ≥10y adjunct for bipolar depression	S: Most weight gain, sedation R: Hypotension (w/ EtOH / BZDs)
Paliperidone (Invega) 3	S: 3 T: 3 – 12	1.5 mg q 2 weeks	ir: 1.5, 3, 6, 9 dp: 39, 78, 156, 234 mg	24	21 – 30	≥12y schizophrenia	R: ↑Prolactin
Lurasidone (Latuda) 40	S: 20 T: 20 – 80	20 mg weekly	ir: 20, 40, 60, 80, 120	1 – 3	18	≥13y schizophrenia ≥10y bipolar depression	N: Take with food R: Akathisia
Haloperidol (Haldol) 2	S: 0.25 – 1 T: 1 – 6	0.25 – 0.5 mg weekly	ir: 0.5, 1, 2, 5, 10, 20 liq: 2 mg/ml im: 5mg/ml dp: 50, 100mg/ml	2 – 6	12 – 22	≥3y schizophrenia ≥3y disruptive d/o ≥3y Tourette's ≥3y hyperactive behavior	R: ↑EPS/NMS
Pimozide (Orap) 1.5	S: 0.25 – 1 T: 0.2mg/kg/d or 10 mg max	0.25 – 0.5 mg weekly	ir: 1, 2	7	55	≥12y Tourette's	R: ↑EPS/NMS, ↑QTc

ir = immediate release; **xr** = extended release; **sl** = sublingual; **liq** = oral liquid; **im** = intramuscular; **dp** = depot; **RDE** = Relative Dose Equivalence (mg); **EPS** = Extrapyramidal Symptoms; **NMS** = Neuroleptic Malignant Syndrome; **ASD** = Autism Spectrum Disorder; **Metabolic risk with all antipsychotics** = ↑Wgt, ↑ lipids, ↑ HgA1c, ↑fasting glucose. [1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Antipsychotics/Neuroleptics (2/2)

Generic (Trade)	S: start dose (mg) T: target dose (mg/day)	Titration Schedule	Formulations (mg)	Peak (hr)	t 1/2 (hr)	FDA Approv in Youth[1]	N: notes; S: side effects; R: risks
Brexpiprazole (Rexulti)	**S:** 1 **T:** 2 – 4	0.25 – 0.5 mg q 2 weeks	0.25, 0.5, 1, 2, 3, 4	4	91	--	**R:** SI, TD, leukopenia, akathisia
Asenapine (Saphris)	**S:** 2.5 – 5 **T:** 10 – 20	2.5 mg weekly	**sl**: 2.5, 5, 10	0.5 – 1.15	24	≥10y bipolar 1	**R:** Akathisia, TD
(O)lanzapine-(F)luoxetine (Symbyax)	**S:** (O) 3 (F) 25 **T:** (O) 6 (F) 25	q 2 weeks	(O:F), 3:25, 6:25, 6:50, 12:25, 12:50	4 h (O) 6 h (F)	192	≥10y bipolar depression	**N:** Not evaluated in doses >12 mg (O) /50 mg (F) in children

[1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Starting and Monitoring Antipsychotics in Children[1]

	Baseline	qVisit	qTitration	@3 Mo.	q6 Mo.	qYear
Patient & Family History[2]	X					X
Lifestyle/Behaviors[3]	X	X				
Weight	X	X				
BP/Pulse	X					
HgA1c/Glc	X			X	X	
Lipids	X			X	X	

[1] Based on Correll, Int Rev Psychiatry 2008; 20(2):195-201. Other labs that are not routinely checked but may warrant monitoring include prolactin, CBC and/or LFTs.

[2] Obesity, hypertension, diabetes, dyslipidemia, hx of coronary heart disease (CHD) or equivalent (diabetes, peripheral arterial disease, abdominal aortic aneurysm, symptomatic carotid artery disease, arrhythmias, QT prolongation), hx of premature CHD in 1° relatives (males < 55y and females < 65y), hx of adverse/allergic reaction.

[3] Diet, exercise, smoking, substance use, sleep hygiene

Lithium and Antiepileptic Drug (AED) Mood Stabilizers

Generic (Trade)	LS	Start (daily total mg)	Target Dose (Blood Level)	Titration Schedule	Formulations (mg)	t 1/2 (hr)	FDA Approv in Youth[1]	Notes Boxed Warnings
Lithium (Eskalith, Lithobid)	A	<25kg: 300 25 – 40kg: 600 >40kg: 900	600 – 1500 mg 25-30mg/kg/d (0.6 – 1.2 mEq/L)	300 mg q 3 – 5d	**ir**: 150, 300, 600 **dr**: 300, 450 **liq**: 8mEq/5mL	12 – 27	≥7y mania/ mixed ≥7y bipolar 1 maintenance	↓ Therapeutic window ↓ Thyroid; NSAIDs toxic Brugada syndrome
Valproic Acid (Depakene, Depakote)	B	<25kg: 300 25 – 40kg: 600 >40kg: 900	500 – 2000 mg 30mg/kg/d (50-120 mg/L)	10 mg/kg/d q 3 – 4d	**s**: 125 **dr**: 125, 250, 500 **liq**: 50mg/mL	4 – 14 child 9 – 18 adult	--	Hepatic necrosis (<2yo) Hepatitis, Pancreatitis, PCOS Teratogenic
Carbamazepine (Tegretol, Carbatrol)	B	<25kg: 100 25 – 40kg: 200 >40kg: 400	400 – 1200 mg (8 – 12 mg/L)	100 mg q 5d	**ir**: 200 **c**: 100 **dr**: 100, 200, 300, 400 **liq**: 20mg/mL	18 – 55 initial 12 – 17 stable	--	SJS/TEN (↑in Asians) Agranulocytosis Glaucoma
Lamotrigine (Lamictal)	C	<40kg: 12.5 >40kg: 25	75 – 400 mg (4.5 – 7.5 mg/ kg/d)	12.5 – 25 mg q 7d	**ir**: 25, 100, 150, 200 **c**: 5, 25 **dr**: 25, 50, 100, 200, 250, 300	13	--	SJS/TEN (↑in kids)
Topiramate (Topamax)	C	<40kg: 15 >40kg: 25	50 – 400 mg **SZ:** 5 – 9 mg/ kg/d	25 mg q 3 – 7d	**ir**: 25, 50, 100, 200 **s**: 15, 25 **dr**: 25, 50, 100, 150, 200	21	--	↑$[NH_4]$, Glaucoma Metabolic acidosis Renal stones, sedation
Oxcarbamazepine (Trileptal)	D	8 – 10/kg/d	600 – 2100 mg	5 mg/kg/d q 3d	**ir**: 150, 300, 600 **dr**: 150, 300, 600 **liq**: 60mg/mL	parent: 2 10 – OH: 9	--	SJS/TEN (↑in Asians) Sedation

Screen & Monitor for All: pregnancy, CBC, Chem7, thyroid function, kidney (lithium) or liver (AEDs) dysfunction.

LS = literature support; **A** = effective in placebo-controlled randomized trials (PC-RT) in children; **B** = effective in PC-RT in adults; **C** = positive results in child/adol open trial(s); **D** = positive in child/adol case report(s); **SZ:** = seizures; **ir** = immediate release; **dr** = delayed release (XR, ER); **c** = chewable; **s** = sprinkles; **liq** = oral liquid

SJS/TEN = Stevens-Johnson Syndrome/Toxic Epidermal Necrolysis

[1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Stimulants

Type	Trade	t 1/2	Formulations (mg)	FDA Approv[1]	FDA Max (mg/d)	Starting Dose	Notes
MPH	Ritalin (pill) Methylin (chew) Methylin (soln)	2.8 2.7	5, 10, 20 2.5, 5, 10 1mg/ml, 2mg/ml	≥6y	72 or 2mg/kg/d	0.25 to 1 mg/kg/d	MPH is de-esterified to alpha-phenyl piperidine acetic acid (PPA, ritalinic acid) and excreted by the kidneys. PPA has little or no pharmacologic activity so there is not predicted to be any effect with renal insufficiency.
	Ritalin SR * Methylin ER * Metadate ER *	++	20 10, 20 20				
	Ritalin LA ***s*** Metadate CD ***s*** Concerta * Daytrana (patch) Quillivant XR QuilliChew ER	+++	10, 20, 30, 40 10, 20, 30, 40, 50, 60 18, 27, 36, 54 10, 15, 20, 30 /9 hrs 5mg/ml 20, 30, 40				
Dex-AMPH	Focalin	+	2.5, 5, 10		30 or 1 mg/kg/d	0.1 to 0.5 mg/kg/d	
	Focalin XR *	+++	5, 10, 15, 20, 25, 30, 35, 40				
AMPH	Adzenys XR-ODT	+++	3.1, 6.3, 9.4, 12.5, 15.7, 18.8		18.8		
	Aderall	+	5, 7.5, 10, 12.5, 15, 20, 30	≥3y	40		
	Aderall XR ***s***	+++	5, 10, 15, 20, 25, 30				
Dex-MPH	Dexedrine	+	5, 10, 15				
	Dexedrine CR ***s***	++	5, 10, 15				
	Vyvanse	+++	20, 30, 40, 50, 60, 70	≥6y	70	20-30 mg	

For All: discuss risk for anorexia, insomnia, tics, ↑BP, ↑HR, arrhythmia, possible ↓terminal height

MPH = Methylphenidate; **AMPH** = Amphetamine, ***** = do not crush or cut, ***c*** = chewable available, ***s*** = may be sprinkled on food.
[1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Stimulant Prescribing Notes

Pre-Screen	• Pt and family cardiovascular hx (consult a cardiologist if patient has a structural heart defect or a family history of sudden cardiac death) • Personal or family history of tics / Tourette Syndrome (stimulants may unmask) • Glaucoma or MAOI within 14 days (both are contraindications) • Baseline PE, HR, BP, height & weight • Assess for risk of diversion/misuse and educate on proper storage/disposal (see FDA DSC 5-11-23)
Dose Titration	• q3 – 4 days to weekly • Short-acting forms given BID or TID; Long-acting forms given once daily • May supplement with a short-acting form after school • Last dose no later than 4pm to avoid sleep disruption
Adequate Trial	• 1 week at max dose
Monitor	• Weekly for 2 – 4 wks (titration period) • Monthly until "stable" then at discretion • Review HR, BP, height, weight at each visit
Prognosis	• Rule of thirds (1/3 remain syndromal, 1/3 subsyndromal, 1/3 remit) • OK to consider drug holidays
Other Notes	• Abuse/misuse potential (less w/ some formulations, e.g., Vyvanse, Concerta) • Educate parents on securing and monitoring medication use • Watch for rebound or irritability as stimulant wears off later in the day • Watch for mood deterioration despite improvement in focus and impulsivity • May increase risk for psychosis (AMPH>MPH) or bipolar induction • Some forms should not be crushed, cut or chewed • Mixed data on potential for growth suppression • May continue during pregnancy only if needed to function daily • May decrease seizure threshold

Alternatives to Stimulants for ADHD

Generic (Trade)	**S: start dose (mg)** **T: target dose (mg/day)**	**Titration Schedule**	**Formulations (mg)**	**t 1/2 (hr)**	**FDA Approved in Youth**[1]	**N: notes; S: side effects; R: risks; E: elimination; M: mechanism of action**
Clonidine (Catapres, Kapvay)	**S:** 0.05 – 0.1mg **T:** 0.1 – 0.4	q3 – 7 days	**ir tab:** 0.1, 0.2, 0.3 **er tab:** 0.1, 0.17 **patch:** 0.1, 0.2, 0.3	12 – 16 (**ir** and er) 20 (patch)	≥6y ADHD (**er**)	**N:** Also used off-label for tics, insomnia, agitation, aggression, and opiate withdrawal. Monitor BP, pulse; consider EKG. Rebound HTN, insomnia if stopped abruptly: taper over 1 – 2 wks **S:** dizziness, orthostatic HTN, enuresis
Guanfacine (Tenex, Intuniv)	**S:** 0.5 – 1mg **T:** 1 – 4 mg	q3 – 7 days	**ir tab:** 1, 2 **er tab:** 1, 2, 3, 4	**ir**: 17 **er**: 18 – 22	≥6y ADHD (**er**)	**N:** similar to clonidine but modestly longer half-life: Less rebound HTN. Slightly less sedating than clonidine.
Atomoxetine (Strattera)	**S:** <0.5 mg/kg/d split BID **T:** 1.4mg/kg/d split BID or 100mg	weekly	**ir tab:** 10, 18, 25, 40, 60, 80, 100	5	≥6y ADHD	**N:** Effect may take 2 – 4 weeks **N:** Adj. dose if on CYP2D6 inhibitors **N:** Adj. dose for hepatic insufficiency **N:** Split BID with food to minimize SEs **S:** n/v, ↓appetite, dizziness, fatigue, mood swings, headache, insomnia, hot flushing. **R:** Black box warning. No clinically significant effect on CYP1A2, CYP3A, CYP2D6, and CYP2C9
Bupropion (Wellbutrin)	**S:** 37.5 – 75 mg (1.4 – 3 mg/kg/d) **T:** 100 – 300 mg (3 – 6 mg/kg/d)	q1 – 2 weeks	**ir tab:** 75, 100 **sr tab:** 100, 150, 200 **xl tab:** 150, 300	**ir**: 14 **sr/xl:**21 – 37	None	**N:** Not FDA approved for ADHD and limited literature support, but consider when there is co-morbid depressive disorder or substance use, or when stimulant trials have failed. **S:** ↑Anxiety **R:** Seizures (higher doses), exacerbating anorexia **M:** Unknown (dopamine augmented)
Viloxazine ER (Qelbree)	**S:** 100 mg **T:** 100 – 400 mg	weekly	**er cap:** 100, 150, 200	7	≥6y ADHD	**N:** If unable to swallow, may be sprinkled over applesauce or pudding **S:** Sedation, anorexia, fatigue, insomnia, nausea, dry mouth **R:** Black box warning, increased DBP **E:** 90% urine, 1% feces **M:** Norepinephrine reuptake inhibitor

CYP = Cytochrome P450 proteins; **tab** = tablet; **cap** = capsule; **liq** = oral liquid, **ir** = immediate release, **er or xl** = extended release, **dr** = delayed release. **sr** = sustained release

[1]Only psychotropic use approvals are listed. Medications may have other approvals in youth.

Sleep Management

- Eliminate afternoon or evening caffeine/tea or any herbals that may contain natural stimulants.
- Move meds that can disrupt sleep (e.g., fluoxetine) to morning and sedating meds (e.g., topiramate) to bedtime.
- Minimize daytime napping because daytime sleep depletes nocturnal sleep drive.
- Align sleep period with diurnal light (bright light exposure during the day, dark at night).
- Optimize sleep induction (daytime aerobic exercise, no light or dim red nightlights, no TV or electronics, cool temperature).
- OTC medication options:
  - **Melatonin** up to 10 mg taken 30 - 60 min before bedtime, though there is limited data for benefit above 2 - 3mg in school age and 5 - 6 mg in adolescents. Children with autism may need higher doses. SEs may include HA, nausea, dizziness, flushing, itching, bad dreams. Can combine with other options.
  - **L-Theanine** 200 - 600 mg at bedtime. SEs may include HA, nausea, irritability. Can combine with other options.
  - **Diphenhydramine** (12.5 - 50 mg). Use short-term due to rapid tolerance. Synergizes with other antihistamine/anticholinergics.
- Prescription options (titrate every 3 - 7 days):
  - **Trazodone** 12.5 - 50 mg in school age and up to 100mg in adolescents in 12.5 - 25mg increments. Advise of very low risk of priapism. Avoid if strong concern for bipolar I disorder.
  - Alpha-2 agonist (IR **clonidine** 0.05 - 0.2 mg or IR **guanfacine** 0.5 - 2 mg) in increments of 0.05 - 0.1 (clonidine) or 0.5 - 1mg (guanfacine). Monitor for hypotension, bradycardia, or arrhythmia (baseline EKG if developmentally delayed or family hx of early CV disease). Clonidine tends to be more sedating.
  - **Mirtazapine** 3.75 - 15mg at bedtime. May cause significant weight gain and synergize with other centrally active antihistamines. Avoid if strong concern for bipolar I disorder.
  - **Hydroxyzine** (10 - 50 mg). FDA approved for short-term anxiety. Synergizes with other antihistamine/anticholinergics.
  - If none of the above are successful, consider **quetiapine** starting at 12.5 - 25mg and increment in same units to benefit or SEs (daytime sedation, intolerable weight gain, rigidity). Monitor for metabolic syndrome (HgA1c and lipid panel at start, 3 months, and every 6 months thereafter).
- If still unresponsive or history is concerning for a sleep disorder, e.g., snoring, nocturnal awakenings, daytime sleepiness despite adequate sleep period, consider referral for a sleep evaluation.

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The information on these cards is intended to offer general guidelines on psychotropic medications used to treat behavioral health conditions. It is not a substitute for specific professional medical advice.

MC3 is funded by the Michigan Department of Health and Human Services (MDHHS) via general funds, Medicaid Administration funds, Health Resources Services Administration (HRSA) funds, and Flint Water Crisis funds.

This project is/was supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number U4CMC32321, Pediatric Mental Health Care Access Program as part of an award totaling $534,000, with 20 percent financed with state government resources. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.

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