	Generic Name	Label Name			
		RITALIN, RITALIN LA,	ADHD	ASD (hyperactivity)	
Stimulants(*¥)		CONCERTA, METADATE ER,	2 ND LINE TREATMENT	2 ND LINE TREATMENT	
	Methylphenidate	METADATE CD, MPH ER, MPH CD, MPH SR, MPH LA, METHYLIN CHEW, MPH CHEW TAB, QUILLIVANT ER CHEW. Available in liquid: MPH 5mg/5ml; 10mg/5ml Methylin5mg/5ml;10mg/5ml Quillivant XR 25mg/5ml	Initial liquid dose 1-5 mg ^{1,2}	Initial liquid dose 1-5mg ¹	
	Amphetamine	Adderall, Adderall XR,	ADHD		
	<u> </u>	Dextroamp-amphetamine,	3 rd LINE TREATMENT		
	products φ	Dextroamp-amphetamine ER	Initial liquid dose 0.5-2.5 mg ²		
Alpha-Agonists (αβ)	Clonidine	CATAPRES CATAPRES-TTS PATCH CLONIDINE HCL ER KAPVAY ER	ADHD 4th LINE TREATMENT - ADHD symptoms with sleep disturbance: initial dosage of 0.025mg-0.05mg in divided doses. May administer up to 0.3mg in divided doses including a bedtime dose. - ADHD symptoms without sleep disturbance: initial dosage of 0.025-0.05mg daily. May increase to a total maintenance dose of 0.3 mg administered in divided doses. 34 • A higher dosing range may be needed if there are significant comorbid diagnoses 1	ASD (hyperactivity, irritability, aggression) 3rd LINE TREATMENT Initial dosage of 0.025-0.05mg at bedtime. May be increased up to 0.1 mg/day at bedtime 5 6 If daytime symptoms persist - May administer up to 0.3mg in divided doses including bedtime dose A higher dosing range may be needed if there is significant comorbid diagnoses 1	Sleep Disturbance 3rd LINE TREATMENT Initial dosage of 0.025-0.05mg at bedtime. May be increased up to 0.1 mg/day at bedtime 5 6 • Short term use, 1 month maximum before reassessment of underlying cause of sleep disturbance • If ADHD symptoms present and sleep disturbance adequately treated, then return to ADHD recommendations.
A	Guanfacine	TENEX INTUNIV ER	ADHD 4 th LINE TREATMENT Initial dosage of 0.5 mg/day with a 0.5 mg increment every third day to a therapeutic dosage of between 1 – 3 mg/day ^{7 8}	ASD (hyperactivity) 3 rd LINE TREATMENT Initial dosage of 0.5 mg/day with a 0.5 mg increment every third day to a therapeutic dosage of between 1 – 3 mg/day. ^{7 8}	
			ADHD	ASD (hyperactivity)	
	Atomoxetine	STRATTERA	4 th LINE TREATMENT	4 th LINE TREATMENT	
			Should not be used with children under age 6 DocAssist (866-986-2778) due to the inaccessi		

^{*}If there is a patient or family history of a heart condition, the patient should have a baseline ECG. Contact the child's PCP to discuss safety issues.

[¥] If the patient's weight drops below the 3rd percentile, the medication should be discontinued. The child may need a referral for a growth delay evaluation.

 $[\]alpha$ A baseline ECG is not indicated unless the patient has a pre-existing arrhythmia or cardiac disease.

β If planning discontinuation, these medications must be tapered.

φ Because the side effect profile including head ache, stomach ache and trouble sleeping, is significantly greater compared with Methylphenidate/Dexmethylphenidate in this age group, this is not a first line medication for the preschool population.

	Generic name	Label Names	Dosing by Disorder		
			Anxiety and OCD	ASD (repetitive behaviors)	Depression
Antidepressant €	Fluoxetine	PROZAC	2 nd LINE TREATMENT	2 nd LINE TREATMENT	2 nd LINE TREATMENT
		SARAFEM	Initial low dose 2.5mg – 5mg to improve tolerability of SSRI ¹²	Initial liquid dose of 2.5 mg/day; week 2 and 3 titrated per subject's weight, symptoms and side effects with a maximum of 0.8 mg/kg/day	Initial liquid dose 0.5-2mg/day to minimize side effects. • 5-8mg/day effective treatment
		Available in liquid 20mg/5ml		13 Starting with a lower dose may mitigate behavioral activation side effect	dose for this age group ¹
	Sertraline	ZOLOFT	Anxiety	OCD	
			3 rd LINE TREATMENT	2 nd LINE TREATMENT	
		Available in liquid 20mg/ml	Initial low dose of 5-10mg/day with range up to 25mg ¹²	Initial low dose of 5-10mg/day with range up to 25mg ¹²	
eb		CELEXA Available in liquid 10mg/5ml	Anxiety ¹⁴	Depression ¹⁴	
i i	Citalopram		3 rd LINE TREATMENT	3 rd LINE TREATMENT	
Ant	Citalopram		Initial low dose of 0.5mg/day; range up to 10mg. Increase by 0.5mg/ week	Initial low dose of 0.5mg/day; range up to 10mg. Increase by 0.5mg/ week	
	Escitalopram	LEXAPRO Available in liquid 5mg/5ml	Initial low dose of 0.25mg/day with range up to 5mg. Increase by 0.25mg/ week	Initial low dose of 0.25mg/day with range up to 5mg. Increase by 0.25mg/ week	
	Fluvoxamine	LUVOX, LUVOX CR	OCD		
		Unavailable in liquid –	2 nd LINE TREATMENT		
		cannot be compounded	Initial low dose of 6.25mg/day with range		
		£ Only comes in a 25mg tab	up to 25mg*		
	Risperidone	RISPERDAL,	ASD (irritability, aggression)	Bipolar	DBD and Aggression
		RISPERDAL M-TAB, RISPERDAL CONSTA	2 nd LINE TREATMENT	2 nd LINE TREATMENT	2 nd LINE TREATMENT
			Initial liquid dose 0.1 – 1.5mg/day with a	Initial liquid dose 0.1 – 1.5mg/day 10	0.02 mg/kg/day to 0.06
			maximum dosage of 3mg/day 10		mg/kg/day, or 1 to 2 mg/day based on a sample of 5 -17 year
tic		Available in liquid 1 mg/ml			olds 15
ho	Aripiprazole	ABILIFY ABILIFY DISCMELT ABILIFY MAINTENA ER	ASD (irritability, aggression)	Bipolar (mania)	
2			3 rd LINE TREATMENT	3 rd LINE TREATMENT	
Atypical Antipsychotic			Initial liquid dose of 0.2 - 3 mg with a	Initial liquid dose of 0.2 - 3 mg with a maximum	
			maximum of 7.5mg ¹⁶	of 7.5mg ¹⁶	
Ā		Available in liquid 1 mg/ml	• Extrapolating from research on ages 6-17.	Using dose equivalents due to insufficient	
<u> </u>			17 10 Using dose equivalents due to insufficient research for children ages 3-5.	research in the preschool population. • Extrapolating from research on ages 6-17 ¹⁸ ¹⁹	
pic		SEROQUEL	Bipolar (mania)	- Latrapolating from research on ages 0-17 to 19	
Aty	Quetiapine	Available in liquid – must be	3 rd LINE TREATMENT		
		compounded	Initial liquid dose of 2.5 mg/kg/day		
		SEROQUEL XR	• Wk 2: increase by 2.5 mg/kg/day		
		Unavailable in liquid –	■ Wk 3: increase by 3.75 mg/kg/day		
		cannot be compounded	• Wk 4: increase by 5.0 mg/kg/day		
		·	■ Maximum dose 10.0 mg/kg/day ²⁰		

[€] Last resort intervention due to the high incidence of side effects specifically behavioral activation in young children ²¹. Studies support use of Fluvoxamine, Citalapram, Sertraline and Escitalopram in children 6 years and above but no data supporting use in children under age 6 ^{21,22}. Clinical experience suggests that lower starting doses may mitigate the young child's behavioral activation.

£ Original initial dose from literature is 5-10mg. Liquid form is not available in US therefore ¼ of 25mg tab = 6.25 mg dose.

Herbal	Melatonin	Sleep Disturbance	Sleep (Initial Insomnia)	
		2 nd LINE TREATMENT	2 nd LINE TREATMENT	
		Provide 0.25 - 3mg for preschool age	■ To treat initial insomnia due to sleep phase	
		children; administer 5-7 hours before	delay, a small dose of melatonin (0.25 – 1.0	
		bedtime ^{1 23}	mg) given 5-7 hours before bedtime to	
			maximize the synchrony of the body clock.	
			• For use as a sleep agent, higher doses (3 – 9	
			mg) given at bedtime may be effective ²³	

- 1. Gleason MM, Egger HL, Emslie GJ, et al. Psychopharmacological Treatment for Very Young Children: Contexts and Guidelines. *J Am Acad Child Adolesc Psychiatry*. 2007;46(12):1532-1572. doi:10.1097/chi.0b013e3181570d9e.
- 2. Pliszka S. Practice Parameter for the Assessment and Treatment of Children and Adolescents With Attention-Deficit/Hyperactivity Disorder. *J Am Acad Child Adolesc Psychiatry*. 2007;46(7):894-921. doi:10.1097/chi.0b013e318054e724.
- 3. Banaschewski T, Roessner V, Dittmann RW, Janardhanan Santosh P, Rothenberger A. Non?stimulant medications in the treatment of ADHD. *Eur Child Adolesc Psychiatry*. 2004;13(S1). doi:10.1007/s00787-004-1010-x.
- 4. Hirota T, Schwartz S, Correll CU. Alpha-2 agonists for attention-deficit/hyperactivity disorder in youth: a systematic review and meta-analysis of monotherapy and add-on trials to stimulant therapy. *J Am Acad Child Adolesc Psychiatry*. 2014;53(2):153–173.
- 5. Ming X, Gordon E, Kang N, Wagner GC. Use of clonidine in children with autism spectrum disorders. Brain Dev. 2008;30(7):454-460. doi:10.1016/j.braindev.2007.12.007.
- 6. Ingrassia A, Turk J. The use of clonidine for severe and intractable sleep problems in children with neurodevelopmental disorders: A case series. *Eur Child Adolesc Psychiatry*. 2005;14(1):34-40. doi:10.1007/s00787-005-0424-4.
- 7. Hunt RD, Arnsten AF, Asbell MD. An open trial of guanfacine in the treatment of attention-deficit hyperactivity disorder. *J Am Acad Child Adolesc Psychiatry*. 1995;34(1):50–54.
- 8. Scahill L, Aman MG, McDougle CJ, et al. AProspective Open Trial of Guanfacine in Children with Pervasive Developmental Disorders. *J Child Adolesc Psychopharmacol*. 2006;16(5):589–598.
- 9. Upadhyaya H, Kratochvil C, Ghuman J, et al. Efficacy and Safety Extrapolation Analyses for Atomoxetine in Young Children with Attention-Deficit/Hyperactivity Disorder. *J Child Adolesc Psychopharmacol*. 2015;25(10):799-809. doi:10.1089/cap.2014.0001.
- 10. Kaplan G, McCracken JT. Psychopharmacology of autism spectrum disorders. *Pediatr Clin North Am.* 2012;59(1):175-187, xii. doi:10.1016/j.pcl.2011.10.005.
- 11. Kratochvil CJ, Vaughan BS, Mayfield-Jorgensen ML, et al. A Pilot Study of Atomoxetine in Young Children with Attention-Deficit/Hyperactivity Disorder. *J Child Adolesc Psychopharmacol*. 2007;17(2):175-186. doi:10.1089/cap.2006.0143.
- 12. Fanton J, Gleason MM. Psychopharmacology and Preschoolers: A Critical Review of Current Conditions. *Child Adolesc Psychiatr Clin N Am.* 2009;18(3):753-771. doi:10.1016/j.chc.2009.02.005.
- 13. Hollander E, Phillips A, Chaplin W, et al. A Placebo Controlled Crossover Trial of Liquid Fluoxetine on Repetitive Behaviors in Childhood and Adolescent Autism. *Neuropsychopharmacology*. 2005;30(3):582-589. doi:10.1038/sj.npp.1300627.
- 14. Safer DJ, Zito JM. Treatment-emergent adverse events from selective serotonin reuptake inhibitors by age group: children versus adolescents. *J Child Adolesc Psychopharmacol*. 2006;16(1-2):159–169.

- 15. Lohr WD, Honaker J. Atypical Antipsychotics for the Treatment of Disruptive Behavior. Pediatr Ann. 2013;42(2):72-77. doi:10.3928/00904481-20130128-11.
- 16. Leucht S, Samara M, Heres S, et al. Dose Equivalents for Second-Generation Antipsychotic Drugs: The Classical Mean Dose Method. *Schizophr Bull*. 2015;41(6):1397-1402. doi:10.1093/schbul/sbv037.
- 17. Owen R, Sikich L, Marcus RN, et al. Aripiprazole in the Treatment of Irritability in Children and Adolescents With Autistic Disorder. *PEDIATRICS*. 2009;124(6):1533-1540. doi:10.1542/peds.2008-3782.
- 18. Findling RL, McNamara NK, Youngstrom EA, et al. An Open-Label Study of Aripiprazole in Children with a Bipolar Disorder. *J Child Adolesc Psychopharmacol*. 2011;21(4):345-351. doi:10.1089/cap.2010.0102.
- 19. Peruzzolo TL, Tramontina S, Rohde LA, Zeni CP. Pharmacotherapy of bipolar disorder in children and adolescents: an update. *Rev Bras Psiquiatr.* 2013;35(4):393-405. doi:10.1590/1516-4446-2012-0999.
- 20. Joshi G, Petty C, Wozniak J, et al. A prospective open-label trial of quetiapine monotherapy in preschool and school age children with bipolar spectrum disorder. *J Affect Disord*. 2012;136(3):1143-1153. doi:10.1016/j.jad.2011.09.042.
- 21. Hetrick SE, McKenzie JE, Cox GR, Simmons MB, Merry SN. Newer generation antidepressants for depressive disorders in children and adolescents. In: The Cochrane Collaboration, ed. *Cochrane Database of Systematic Reviews*. Chichester, UK: John Wiley & Sons, Ltd; 2012. http://doi.wiley.com/10.1002/14651858.CD004851.pub3. Accessed September 16, 2016.
- 22. West L, Brunssen SH, Waldrop J. Review of the evidence for treatment of children with autism with selective serotonin reuptake inhibitors. *J Spec Pediatr Nurs*. 2009;14(3):183–191.
- 23. Pelayo R, Yuen K. Pediatric Sleep Pharmacology. Child Adolesc Psychiatr Clin N Am. 2012;21(4):861-883. doi:10.1016/j.chc.2012.08.001.