

Guidelines for Prescribing Psychotropic Medication to Preschool Age Children (3-5 Years Old)

Diagnosis	1 <sup>st</sup> Line Treatment	2 <sup>nd</sup> Line Treatment	3 <sup>rd</sup> Line Treatment
<p>ADHD</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>ADHD Rating Scale – IV Preschool or Connors Early Childhood - EC</li> </ul>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Parent Behavior Training (PBT) interventions<sup>1</sup></li> </ul>	<p>Methylphenidate/Dexmethylphenidate</p> <ul style="list-style-type: none"> <li>Medication can be discontinued quickly</li> <li>Review family/child history of heart condition*</li> </ul> <p><u>Side Effects</u><sup>1</sup></p> <ul style="list-style-type: none"> <li>Loss of appetite - severely underweight and children who have lost a significant amount of weight should be carefully monitored by a pediatrician for increased nutritional needs.</li> <li>Increased blood pressure and heart rate should be monitored closely by a pediatrician.</li> <li>Stomach and/or head ache</li> <li>Irritability/moodiness<sup>2</sup></li> <li>Insomnia/sedation</li> </ul>	<p>Amphetamine Formulations</p> <ul style="list-style-type: none"> <li>Medication can be discontinued quickly</li> <li>Review family/child history of heart condition*</li> <li>As effective as methylphenidate in older children but no good studies have been done in children under 5.</li> </ul> <p><u>Side Effects</u><sup>1</sup></p> <ul style="list-style-type: none"> <li>The side effect profile is significantly greater in this age group than for Methylphenidate/Dexmethylphenidate<sup>3</sup></li> <li>Loss of appetite - severely underweight and children who have lost a significant amount of weight should be carefully monitored by a pediatrician for increased nutritional needs.</li> <li>Increased blood pressure and heart rate should be monitored closely by a pediatrician.</li> <li>Stomach and/or head ache</li> <li>Irritability/moodiness<sup>2</sup></li> <li>Insomnia/sedation</li> </ul>
<b>4<sup>th</sup> Line Treatment</b>			
<p>Alpha-Agonists</p> <ul style="list-style-type: none"> <li>Careful consideration of age and body weight, initial low liquid doses</li> <li>If discontinuation is planned, these medications must be decreased slowly in increments.</li> <li>A higher dosing range may be needed if there are other significant diagnoses<sup>1</sup></li> <li>Parent education about safe administration and monitoring - Never give more than prescribed, if dose missed do not double dose, do not discontinue this medication abruptly.</li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation/REM suppression</li> <li>Irritability</li> <li>Headache</li> <li>Slow heart rate - bradycardia, hypotension</li> <li>Low blood pressure – monitor blood pressure and heart rate***</li> <li>Drying effect (e.g. dry mouth, changes in vision, constipation)</li> </ul>		<p>Atomoxetine</p> <p><u>Side Effects</u><sup>4</sup></p> <ul style="list-style-type: none"> <li>Mood Swings</li> <li>Sleepiness</li> <li>Decreased appetite</li> <li>Abdominal Pain</li> <li>Vomiting</li> <li>Headache</li> </ul>	

\* If there is a family history of structural heart disease or an arrhythmia, or if the patient has a heart condition, the patient should have a baseline ECG. Contact the child’s PCP to discuss safety issues. For more complicated cardiac pathology, an echocardiogram or a cardiology consultation may be indicated.

\*\* If the patient loses weight such that his/her weight drops 2 percentile lines on a standard growth curve or if his/her weight falls below the 3<sup>rd</sup> percentile, the medication should be discontinued. The child may need a referral for a growth delay evaluation.

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

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<p>Anxiety</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>Spence Preschool Anxiety Scale: Parent Report - free tool to help assess children ages 3-6 with anxiety.</li> </ul> <p>Anxiety</p> <p><a href="http://www.scasweb site.com/docs/scas-preschool-scale.pdf">http://www.scasweb site.com/docs/scas-preschool-scale.pdf</a></p> <ul style="list-style-type: none"> <li>Ages and Stages Questionnaire: Social Emotional (ASQ-SE)</li> </ul>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Behavioral therapy or preschool CBT<sup>5</sup> for a minimum of 12 weeks</li> <li>Parenting intervention for anxiety without mood disorder<sup>6</sup></li> </ul>	<p>Fluoxetine</p> <ul style="list-style-type: none"> <li>Last resort intervention due to the high incidence of SSRI related side effects, specifically behavioral activation in young children - for severe symptoms<sup>7</sup></li> <li>Planned discontinuation after 6-9 months</li> <li>Given the sensitivity to side effects in the young children, increase dose slowly.</li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Headache</li> <li>Stomach ache</li> <li>Insomnia or increased motor activity</li> <li>Increased energy /unrestrained behavior may increase in younger children and children who also have ADHD or brain disorders<sup>8</sup></li> <li>FDA - Black box warning: SSRIs increase the risk for suicidal thinking</li> <li>With use of Fluoxetine, please review interactions with any other medications the child is taking i.e. asthma medications, antibiotics, seizure medications etc.</li> <li>Decreased appetite and weight loss</li> <li>Sleep disturbance</li> </ul>	<p>Sertraline</p> <ul style="list-style-type: none"> <li>Last resort intervention due to the high incidence of SSRI related side effects, specifically behavioral activation in young children - for severe symptoms<sup>7</sup></li> <li>Planned discontinuation after 6-9 months</li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Headache</li> <li>Stomach ache</li> <li>Insomnia or increased motor activity</li> <li>Increased energy /unrestrained behavior may increase in younger children and children who also have ADHD or brain disorders<sup>8</sup></li> <li>FDA - Black box warning: SSRIs increase the risk for suicidal thinking</li> <li>With use of Fluoxetine, please review interactions with any other medications the child is taking i.e. asthma medications, antibiotics, seizure medications etc.</li> </ul>

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<p>Autism Spectrum Disorder</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>Child Autism Rating Scale</li> <li>Modified Checklist for Autism in Toddlers Revised (M-CHAT-R) <a href="https://www.m-chat.org/mchat.php">https://www.m-chat.org/mchat.php</a></li> </ul> <p>Dysregulation (if significant comorbid problems, please refer to those disorders in this guideline)<sup>9</sup></p> <ul style="list-style-type: none"> <li>Sensory sensitivity<sup>9</sup></li> </ul> <p>Behavioral Therapy<sup>9</sup></p> <p>Applied Behavioral Analysis (ABA) gold standard</p>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Parent psychoeducation</li> <li>Early intervention to address<sup>1</sup> <ul style="list-style-type: none"> <li>Language</li> <li>Social development</li> <li>Adaptive functioning</li> <li>Reduction in repetitive behaviors</li> <li>Aggression</li> <li>Tantrums</li> <li>Self injury</li> <li>Hyperactivity</li> <li>Anxiety and Mood</li> </ul> </li> </ul> <p>Dysregulation (if significant comorbid problems, please refer to those disorders in this guideline)<sup>9</sup></p> <ul style="list-style-type: none"> <li>Sensory sensitivity<sup>9</sup></li> </ul> <p>Behavioral Therapy<sup>9</sup></p> <p>Applied Behavioral Analysis (ABA) gold standard</p>	<p>Irritability and Aggression</p> <p>Risperidone</p> <ul style="list-style-type: none"> <li>FDA indication for irritability and aggression in children aged 5 to 16 years with autistic disorder and symptoms of aggression, self-injury, temper tantrums and mood swings<sup>9</sup></li> <li>Should only be given to young children with severe symptoms of aggression, self-injury, temper tantrums and mood swings because: <ul style="list-style-type: none"> <li>More severe symptoms showed greater improvement with Risperidone.<sup>10</sup></li> <li>The weight related/metabolic side effects of antipsychotic medication/risperidone<sup>11</sup> <ul style="list-style-type: none"> <li>Dietary education should be offered</li> <li>Metabolic monitoring is needed</li> </ul> </li> </ul> </li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</li> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)</li> <li>Increased levels of the hormone prolactin</li> <li>Extreme restlessness</li> <li>Close monitoring of patients is essential<sup>9</sup></li> </ul>	<p>Irritability and Aggression</p> <p>Aripiprazole*</p> <ul style="list-style-type: none"> <li>Good results in school aged population but no preschool data</li> <li>Good treatment effects and comparatively mild side-effects to other atypical antipsychotics<sup>12</sup></li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation</li> <li>Weight gain</li> <li>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</li> <li>Severe restlessness</li> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)</li> </ul> <p>Guanfacine/Clonidine</p> <p><u>Side Effects</u><sup>9</sup></p> <ul style="list-style-type: none"> <li>FDA indication for 6-17 years</li> <li>Good results in school aged population</li> <li>Sedation</li> <li>Weight gain</li> <li>Light headed and unsteady<sup>7</sup></li> </ul>
		<p>Hyperactivity</p>	<p>Hyperactivity</p>
		<p>Methylphenidate</p> <ul style="list-style-type: none"> <li>Medication can be discontinued quickly</li> <li>Review family/child history of heart condition*</li> <li>ASD children are more sensitive to medication, particularly stimulants, than children with only ADHD<sup>9</sup></li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Loss of appetite - severely underweight and children who have lost a significant amount of weight should be carefully monitored by a pediatrician for increased nutritional needs.</li> <li>Increased blood pressure and heart rate should be monitored closely by a pediatrician.</li> <li>Stomach and/or head ache</li> <li>Irritability/moodiness<sup>2</sup></li> <li>Insomnia/sedation</li> </ul>	<p>Alpha-Agonists</p> <ul style="list-style-type: none"> <li>Careful consideration of age and body weight, initial low liquid doses</li> <li>If discontinuation is planned, these medications must be decreased slowly in increments.</li> <li>A higher dosing range may be needed if there are other significant diagnoses<sup>3</sup></li> <li>Parent education about safe administration and monitoring - Never give more than prescribed, if dose missed do not double dose, do not discontinue this medication abruptly.</li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation</li> <li>Irritability</li> <li>Headache</li> </ul>

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Autism Spectrum Disorder		Hyperactivity (continued)	Hyperactivity (continued)
		<ul style="list-style-type: none"> <li>▪ Agitation</li> <li>▪ Abnormal movements<sup>9</sup> such as vocal tics like constant throat clearing , coughing, making noises, etc.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Slow heart rate</li> <li>▪ Low blood pressure <sup>13</sup> – monitor blood pressure and heart rate***</li> </ul> Drying effect (e.g. dry mouth, changes in vision, constipation)
			4 <sup>th</sup> Line Treatment
			Hyperactivity Atomoxetine <u>Side Effects</u> <ul style="list-style-type: none"> <li>▪ Mood Swings</li> <li>▪ Decreased appetite</li> <li>▪ Sleepiness</li> <li>▪ Abdominal Pain</li> </ul>
Diagnosis	1 <sup>st</sup> Line Treatment	2 <sup>nd</sup> Line Treatment	3 <sup>rd</sup> Line Treatment
Autism Spectrum Disorder		Repetitive Behaviors	Repetitive Behaviors
		<u>Fluoxetine</u> <ul style="list-style-type: none"> <li>▪ Last resort intervention for severe symptoms</li> <li>▪ Planned discontinuation after 6-12 months</li> <li>▪ Given the sensitivity to side effects in the young children, increase dose slowly.<sup>14</sup></li> </ul> <u>Side Effects</u> <ul style="list-style-type: none"> <li>▪ Headache</li> <li>▪ Stomach ache</li> <li>▪ Insomnia or increased motor activity</li> <li>▪ Increased energy /unrestrained behavior may increase in younger children and children who also have ADHD or brain disorders<sup>8</sup> FDA - Black box warning: SSRIs increase the risk for suicidal thinking</li> <li>▪ With use of Fluoxetine, please review interactions with any other medications the child is taking i.e. asthma medications, antibiotics, seizure medications etc.</li> <li>▪ Decreased appetite and weight loss</li> <li>▪ Sleep disturbance</li> </ul>	<u>Fluvoxamine, Citalapram, Sertraline and Escitalopram</u> <ul style="list-style-type: none"> <li>▪ Studies support use in children 6 years and above but there is no data supporting use in children under six <sup>14</sup></li> </ul>

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Diagnosis	1 <sup>st</sup> Line Treatment	2 <sup>nd</sup> Line Treatment	3 <sup>rd</sup> Line Treatment
<p>Bipolar</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>Young Mania Rating Scales</li> </ul> <p>Note: Bipolar is very difficult to diagnose in a preschool population because mood changes and extreme emotions are common in this age group. While a diagnosis can be made in children as young as 3 years old, Bipolar Disorder remains extremely rare in this population.<sup>15</sup> Once diagnosed, address mania first, higher incidence of rapid (daily) cycling and mixed mania<sup>16,17</sup></p>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Parent Child Interaction Therapy (PCIT)<sup>6</sup></li> </ul>	<p><u>Risperidone</u></p> <ul style="list-style-type: none"> <li>Due to the weight related/metabolic side effects of antipsychotic medications such as risperidone<sup>11</sup> <ul style="list-style-type: none"> <li>Dietary education should be offered with a prescription</li> <li>Metabolic monitoring is needed</li> </ul> </li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation/fatigue</li> <li>Weight gain</li> <li>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</li> <li>Headache</li> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)</li> <li>Increased levels of the hormone prolactin</li> <li>Severe restlessness</li> <li>Close monitoring of patients is essential<sup>16</sup></li> </ul>	<p><u>Aripiprazole</u><sup>12</sup></p> <ul style="list-style-type: none"> <li>Good results in school aged population but no preschool data</li> <li>Good treatment effects and mild side-effects relative to other atypical antipsychotics<sup>12</sup></li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation</li> <li>Weight gain/increased appetite</li> <li>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</li> <li>Severe restlessness</li> <li>GI disturbance</li> <li>Headache</li> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)<sup>16,18</sup></li> </ul> <p>Quetiapine</p> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Sedation/decreased energy</li> <li>Weight gain</li> <li>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</li> <li>Severe restlessness</li> <li>GI disturbance</li> <li>Headache</li> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)<sup>16,19</sup></li> </ul>

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<p>Depression</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>Preschool Feelings Checklist <sup>20</sup></li> </ul>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Psychotherapeutic Treatment modalities that address the parent-child relationship such as Parent Child Interaction Therapy-Emotion Development (PCIT-ED) <sup>21</sup></li> </ul>	<p><u>Fluoxetine</u></p> <ul style="list-style-type: none"> <li>Last resort intervention due to the high incidence of SSRI related side effects, specifically behavioral activation in young children - for severe symptoms <sup>1,7,22</sup></li> <li>Planned discontinuation after 9 months at therapeutic dose</li> <li>Given the sensitivity to side effects in young children, increase dose slowly.</li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Headache</li> <li>Stomach ache</li> <li>Insomnia or increased motor activity</li> <li>Increased energy /unrestrained behavior may increase in younger children and children who also have ADHD or neurodevelopmental disorders <sup>8</sup></li> <li>FDA - Black box warning: SSRIs increase the risk for suicidal thinking</li> <li>With use of Fluoxetine, please review interactions with any other medications the child is taking i.e. asthma medication, antibiotic, seizure medication etc.</li> <li>Decreased appetite and weight loss</li> <li>Sleep disturbance</li> </ul>	<p><u>Citalopram/Escitalopram</u></p> <ul style="list-style-type: none"> <li>Last resort intervention due to the high incidence of SSRI related side effects, specifically behavioral activation in young children <sup>7,23,24</sup></li> <li>Clinical experience suggests other SSRIs such as Citalopram and Escitalopram may be easier for preschool children to tolerate. However, with Citalopram can change the electrical conduction through the heart.</li> </ul>
<p>Disruptive Behavior Disorder (DBD) and Aggression</p> <p>Diagnostic Assessment /Screening Tool</p> <p><i>Note: Treat the co-morbid disorders contributing to disruptive behavior first</i></p> <ul style="list-style-type: none"> <li>Eyberg Child Behavior Inventory (ECBI)</li> </ul>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Preschool CBT</li> <li>Parent Child Interaction Therapy (PCIT), Incredible Years Program, Collaborative Problem Solving etc. <sup>25</sup></li> <li>Infant/Toddler Parent Programs i.e. Child Parent Interactive Therapy</li> <li>Classroom-Based Interventions Token Reward Systems</li> </ul>	<ul style="list-style-type: none"> <li>Presence of Disruptive/Aggressive Behavior and any other major mental illness – treat other disorder first. If other major mental illness adequately treated and that medication and therapy is addressing Disruptive/Aggressive Behavior, continue treatment of other MI.</li> <li>If Disruptive/Aggressive Behavior Alone:</li> </ul> <p><u>Risperidone</u> - Close monitoring of patients is essential</p> <ul style="list-style-type: none"> <li>Antipsychotics are often used to augment psychotherapy. For <u>severe</u> aggression in preschool age children, an atypical antipsychotic can be prescribed <sup>8</sup></li> </ul> <p><u>Side Effects</u></p> <p>Changes in fasting blood sugar cholesterol, blood pressure and abdominal fat (metabolic syndrome)</p> <ul style="list-style-type: none"> <li>Tremor, stiffness, changes in eye movement, drooling (extrapyramidal side effects)</li> <li>Increased levels of the hormone prolactin</li> <li>Extreme restlessness</li> </ul>	

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<p>Obsessive Compulsive Disorder (OCD)</p> <p>Diagnostic Assessment /Screening Tool</p> <ul style="list-style-type: none"> <li>Spence Preschool Anxiety Scale: Parent Report - free tool to help assess children ages 3-6 with anxiety.</li> </ul> <p><a href="http://www.scasweb site.com/docs/scas-preschool-scale.pdf">http://www.scasweb site.com/docs/scas-preschool-scale.pdf</a></p> <p><sup>26</sup></p>	<p>Psychotherapeutic Trial</p> <ul style="list-style-type: none"> <li>Cognitive Behavioral Therapy CBT using exposure and response prevention techniques and involving parents is recommended <sup>26</sup></li> </ul>	<p><u>Fluoxetine, Sertraline and Fluvoxamine</u></p> <ul style="list-style-type: none"> <li>Last resort intervention due to the high incidence of SSRI related side effects, specifically behavioral activation in young children - for severe symptoms <sup>15,7,23</sup></li> <li>Has been approved by the Food and Drug Administration (FDA) for the treatment of OCD in children. Fluoxetine is 8 years and above. Sertraline is 6 years and above. Fluvoxamine is 8 years and above.</li> <li>Using dose equivalents due to insufficient research for children ages 3-5.</li> <li>Insufficient evidence to recommend one medication over the other</li> <li>Extreme caution should be used with these medication for severe OCD in this age group. <sup>27</sup></li> <li>Given the sensitivity to side effects in the young children, increase dose slowly.</li> <li>Planned discontinuation after 6-8 months at therapeutic dose <sup>27</sup></li> </ul> <p><u>Side Effects</u></p> <ul style="list-style-type: none"> <li>Headache</li> <li>Stomach ache</li> <li>Insomnia or increased motor activity</li> <li>Increased energy /unrestrained behavior may increase in younger children and children who also have ADHD or brain disorders <sup>8</sup></li> <li>FDA - Black box warning: SSRIs increase the risk for suicidal thinking</li> <li>With use of Fluoxetine and Sertraline, please review interactions with any other medications the child is taking i.e. asthma medications, antibiotics, seizure medications etc.</li> <li>Decreased appetite and weight loss</li> <li>Sleep disturbance</li> </ul>	

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PTSD	Psychotherapeutic Trial <ul style="list-style-type: none"> <li>▪ Child-parent psychotherapy (CPP) for a 6 month trial <sup>1</sup> or preschool CBT for minimum of 12 weeks <sup>28</sup></li> </ul>	Psychopharmacological interventions are not recommended for children under 6 years based on a lack of research evidence. Talk to a DCFS Psychopharmacology program consultant if symptoms are severe and therapeutic interventions are ineffective.	
Sleep Disturbance  Diagnostic Assessment Screening Tool  <ul style="list-style-type: none"> <li>▪ Sleep Log</li> </ul>	Parent Education <ul style="list-style-type: none"> <li>▪ Home environment evaluation</li> <li>▪ Sleep hygiene</li> <li>▪ Restless leg syndrome</li> <li>▪ Sleep Apnea</li> <li>▪ Sleep problem associated with other mental health diagnoses</li> <li>▪ Behavior Intervention (2-4 weeks)</li> </ul>	<u>Melatonin</u> <sup>29</sup> <ul style="list-style-type: none"> <li>▪ May be appropriate when sleep disturbance is impacting well-being and daytime functioning of child and/or caregiver</li> <li>▪ Over-the-counter</li> <li>▪ Short term use, 1 month maximum before reassessment</li> </ul>	<u>Alpha-Agonists</u> <ul style="list-style-type: none"> <li>▪ Careful consideration of age and body weight, initial low liquid doses</li> <li>▪ If discontinuation is planned, these medications must be decreased slowly in increments.</li> <li>▪ Short term use, 1 month maximum before reassessment</li> <li>▪ Parent education about safe administration and monitoring - Never give more than prescribed, if dose missed do not double dose, do not discontinue this medication abruptly.</li> </ul> <u>Side Effects</u> <sup>29</sup> <ul style="list-style-type: none"> <li>▪ Respiratory depression</li> <li>▪ Decreased REM (deep sleep)</li> <li>▪ Irritability</li> <li>▪ Headache</li> <li>▪ Slow heart rate</li> <li>▪ Low blood pressure – monitor blood pressure and heart rate***</li> <li>▪ Slow heart rate - bradycardia, hypotention</li> <li>▪ Drying effect (e.g. dry mouth, changes in vision, constipation)</li> </ul>

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

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. Charach A, Carson P, Fox S, Ali MU, Beckett J, Lim CG. Interventions for Preschool Children at High Risk for ADHD: A Comparative Effectiveness Review. *PEDIATRICS*. 2013;131(5):e1584-e1604. doi:10.1542/peds.2012-0974.
3. Luby JL. Handbook of Preschool Mental Health, Second Edition : Development, Disorders, and Treatment. <http://public.eblib.com/choice/publicfullrecord.aspx?p=4659183>. Published 2016.
4. 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.
5. Geller DA, March J. Practice parameter for the assessment and treatment of children and adolescents with obsessive-compulsive disorder. *Focus*. 2012;10(3):360–373.
6. Luby JL. Treatment of anxiety and depression in the preschool period. *J Am Acad Child Adolesc Psychiatry*. 2013;52(4):346–358.
7. Zuckerman ML, Vaughan BL, Whitney J, et al. Tolerability of Selective Serotonin Reuptake Inhibitors in Thirty-Nine Children Under Age Seven: A Retrospective Chart Review. *J Child Adolesc Psychopharmacol*. 2007;17(2):165-174. doi:10.1089/cap.2007.0086.
8. Sakolsky D, Birmaher B. Pediatric anxiety disorders: management in primary care: *Curr Opin Pediatr*. 2008;20(5):538-543. doi:10.1097/MOP.0b013e32830fe3fa.
9. 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.
10. Arnold LE, Farmer C, Kraemer HC, et al. Moderators, mediators, and other predictors of risperidone response in children with autistic disorder and irritability. *J Child Adolesc Psychopharmacol*. 2010;20(2):83–93.
11. Scahill L, Jeon S, Boorin SJ, et al. Weight Gain and Metabolic Consequences of Risperidone in Young Children With Autism Spectrum Disorder. *J Am Acad Child Adolesc Psychiatry*. 2016;55(5):415–423.
12. Oh J, Chang JG, Lee SB, Song D-H, Cheon K-A. Comparison of Aripiprazole and Other Atypical Antipsychotics for Pediatric Bipolar Disorder: A Retrospective Chart Review of Efficacy and Tolerability. *Clin Psychopharmacol Neurosci*. 2013;11(2):72-79. doi:10.9758/cpn.2013.11.2.72.
13. Scahill L, Aman MG, McDougle CJ, et al. A Prospective Open Trial of Guanfacine in Children with Pervasive Developmental Disorders. *J Child Adolesc Psychopharmacol*. 2006;16(5):589–598.
14. 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.

15. Luby JL, Tandon M, Belden A. Preschool Bipolar Disorder. *Child Adolesc Psychiatr Clin N Am*. 2009;18(2):391-403. doi:10.1016/j.chc.2008.11.007.
16. 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.
17. Geller B, Tillman R, Bolhofner K. Proposed Definitions of Bipolar I Disorder Episodes and Daily Rapid Cycling Phenomena in Preschoolers, School-Aged Children, Adolescents, and Adults. *J Child Adolesc Psychopharmacol*. 2007;17(2):217-222. doi:10.1089/cap.2007.0017.
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. 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.
20. Luby JL, Heffelfinger AK, Mrakotsky C, Hessler MJ, Brown KM, Hildebrand T. Preschool major depressive disorder: preliminary validation for developmentally modified DSM-IV criteria. *J Am Acad Child Adolesc Psychiatry*. 2002;41(8):928-937.
21. Lenze SN, Pautsch J, Luby J. Parent-child interaction therapy emotion development: a novel treatment for depression in preschool children. *Depress Anxiety*. 2011;28(2):153-159. doi:10.1002/da.20770.
22. Ercan ES, Kandulu R, Akyol Ardic U. Preschool children with obsessive-compulsive disorder and fluoxetine treatment. *Eur Child Adolesc Psychiatry*. 2012;21(3):169-172. doi:10.1007/s00787-012-0244-2.
23. 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.
24. 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.
25. Luby J, Mrakotsky C, Stalets MM, et al. Risperidone in preschool children with autistic spectrum disorders: an investigation of safety and efficacy. *J Child Adolesc Psychopharmacol*. 2006;16(5):575-587.
26. Whiteside SPH, Gryczkowski MR, Biggs BK, Fagen R, Owusu D. Validation of the Spence Children's Anxiety Scale's obsessive compulsive subscale in a clinical and community sample. *J Anxiety Disord*. 2012;26(1):111-116. doi:10.1016/j.janxdis.2011.10.002.
27. Coskun M, Zoroglu S. Efficacy and safety of fluoxetine in preschool children with obsessive-compulsive disorder. *J Child Adolesc Psychopharmacol*. 2009;19(3):297-300.

28. Cohen JA. Treating acute posttraumatic reactions in children and adolescents. *Biol Psychiatry*. 2003;53(9):827-833. doi:10.1016/S0006-3223(02)01868-1.
29. 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.