Bipolar Disorder

The diagnosis of bipolar disorder in children is a controversial topic even amongst child psychiatric specialists. This controversy makes it difficult for primary care providers to know what to do when they are wondering about bipolar disorder in their patient.

We would prefer that primary care providers would not have to struggle with this, and could refer all such patients to skilled mental health specialists to assist with diagnosis and treatment. The reality is that many primary care providers feel they do not have that option.

This guide on bipolar diagnosis and treatment aims to provide guidance to the primary care provider struggling on their own to sort out a diagnosis, or otherwise manage a bipolar disordered child in their practice.
Considering Bipolar Disorder?

**Strongly consider other reasons for the symptoms such as:**
- ADHD
- Conduct Disorder
- Oppositional Defiant Disorder
- Major Depression
- Early abuse or neglect in dysregulation syndromes
- “Difficult” temperament of child plus interpersonal conflicts
- Autism Spectrum Disorder, especially with oppositionality
- OCD, separation anxiety or other anxiety disorder
- Medical causes of mania (including fetal alcohol syndrome)

**Safety check:**
- Suicidality?
- Drug abuse?
- Current neglect/abuse?

**Diagnosis:**
- Does child have history of clear manic episode for >4 days?
- History of hospitalization for mania?
- History of psychosis or severe suicidality?
- Symptom of inappropriate euphoria/grandiosity?

A rating scale (such as the Child Mania Rating Scale or Young Mania Rating Scale) can help elicit or track symptoms but be cautious about using a rating scale to make a bipolar diagnosis, which requires a comprehensive mental health evaluation.

**Is this an “Unspecified,” or “Other Specified” Bipolar disorder?**
These are the DSM5 labels for bipolar symptoms that cause impairment, but the duration or other criteria for Bipolar I or II are not met. This “soft” criteria bipolar diagnosis in children is controversial. Most irritable, moody, irrational, hyperactive kids when evaluated more fully are found NOT to have a bipolar disorder.

More likely Bipolar spectrum if:
- **Episodic patterns** of changes in mood, activity and energy including elation, hyperactivity, grandiosity, hypersexuality, decreased sleep that are a departure from baseline function (and not fully explained by child’s response to stressors)
- Have 1st degree relative with bipolar

Less likely Bipolar spectrum if:
- Younger age (such as <10)
- Rages only after frustrations
- Symptoms only in 1 setting (i.e. home)
- High expressed emotion in household (think of ODD)

**Treatment:**
1. Consider consultation with a mental health specialist, especially if safety concerns.
2. Consider medical causes of manic symptoms like hyperthyroidism, neurological dysfunction.
3. Psychosocial/behavioral intervention tailored to family, including:
   a. family psychoeducation
   b. child/family focused CBT
   c. enhancing school and community supports
   d. individual or family psychotherapy
   e. behavior management training
4. Medication trial, single agent preferred, choose among:
   a. atypical antipsychotic
   b. lithium
   c. lamotrigine (especially if bipolar depression)
   d. divalproex, carbamazepine also options, though have less evidence basis
5. Be cautious of prescribing antidepressants (manic switching risk).
6. Follow up frequently, perhaps weekly until stabilizing.
7. Ensure adequate sleep hygiene — consider sleep medications if necessary.

**Primary References:**
AACAP “Practice Parameter for the Assessment and Treatment of Adolescents and Children with Bipolar Disorder” JACAP 2007, 46(1), 107-125

Bipolar Disorder Medications

Evidence base on bipolar medications is for narrow phenotype, or classic Bipolar I or II. Broad phenotype, or Bipolar Not Elsewhere Classified has not been well researched in children.

Atypical Antipsychotics

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Dosage Form</th>
<th>Usual Starting Dose</th>
<th>Sedation</th>
<th>Weight Gain</th>
<th>EPS (stiff muscles)</th>
<th>Bipolar (+) child RCT evidence?</th>
<th>FDA bipolar approved?</th>
<th>Editorial Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risperidone</td>
<td>0.25, 0.5, 1, 2, 3, 4mg</td>
<td>0.25mg QHS</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>Yes (Age ≥10 acute mixed or manic)</td>
<td>Yes</td>
<td>Generic forms. More dystonia risk than rest, prolactin impact</td>
</tr>
<tr>
<td>(Risperdal)</td>
<td>1mg/ml</td>
<td>(Age &gt;10 More dystonia risk than rest, or manic) prolactin impact</td>
<td></td>
<td></td>
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<tr>
<td>Aripiprazole</td>
<td>2, 5, 10, 15, 25, 30mg</td>
<td>2mg QD</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>Yes (Age ≥10 acute mixed or manic)</td>
<td>Yes</td>
<td>Generic forms. Long 1/2 life, can take weeks to build effect, more weight gain than for adults</td>
</tr>
<tr>
<td>(Abilify)</td>
<td>1mg/ml</td>
<td>(Age &gt;10 Long 1/2 life, can take weeks to build effect, more weight gain than for adults)</td>
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</tr>
<tr>
<td>Quetiapine</td>
<td>25, 50, 100, 200, 300, 400mg</td>
<td>25mg BID</td>
<td>++</td>
<td>+</td>
<td>+/-</td>
<td>Yes (Age ≥10 acute management)</td>
<td>Yes</td>
<td>Generic forms. Pills larger, could be hard for kids to swallow.</td>
</tr>
<tr>
<td>(Seroquel)</td>
<td>1mg/ml</td>
<td>(Age &gt;10) Pills larger, could be hard for kids to swallow.</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>20, 40, 60, 80mg</td>
<td>20mg BID</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>Yes</td>
<td>No</td>
<td>Generic forms. Greater risk of QT lengthen, EKG check</td>
</tr>
<tr>
<td>(Geodon)</td>
<td>1mg/ml</td>
<td>(Age &gt;10) Greater risk of QT lengthen, EKG check</td>
<td></td>
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<tr>
<td>Olanzapine</td>
<td>2.5, 5, 7.5, 10, 15, 20mg</td>
<td>2.5 mg QHS</td>
<td>++</td>
<td>++</td>
<td>+/-</td>
<td>Yes (Age ≥13 acute mixed or manic) (Age ≥10 depressed in combination with fluoxetine)</td>
<td>Yes</td>
<td>Generic forms. Greatest risk of weight gain, increased cholesterol</td>
</tr>
<tr>
<td>(Zyprexa)</td>
<td>1mg/ml</td>
<td>(Age ≥10 depressed in combination with fluoxetine)</td>
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</tr>
<tr>
<td>Asenapine</td>
<td>Sublingual 2.5, 5, 10mg</td>
<td>2.5 mg SL BID</td>
<td>++</td>
<td>+/-</td>
<td>+/-</td>
<td>Yes (Age ≥10)</td>
<td>Yes</td>
<td>Oral paresthesias, must dissolve in mouth</td>
</tr>
<tr>
<td>(Saphris)</td>
<td>2.5, 5, 10mg</td>
<td>(Age ≥10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lurasidone</td>
<td>20, 40, 60, 80, 120mg</td>
<td>20 mg QD</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>Yes (Age ≥10 depressed phase)</td>
<td>Yes</td>
<td>Take with food</td>
</tr>
<tr>
<td>(Latuda)</td>
<td>2.5, 5, 10mg</td>
<td>(Age ≥10 depressed phase)</td>
<td></td>
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</tbody>
</table>

Monitoring for all atypical antipsychotics:

1. Weight checks and fasting glucose/lipid panel roughly every 6 months.
2. If weight gain is severe, will need to change treatments.
3. AIMS exam at baseline and Q6months due to risk of tardive dyskinesia that increases with duration of use.
4. Review neuroleptic malignant syndrome risk (i.e. severe allergic reaction) before starting medication.
5. Discuss dystonia risk, and explain the use of diphenhydramine if needed as antidote.
### Bipolar Disorder Medications

#### Other Medication Options

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Bipolar (+) RCT evidence in kids</th>
<th>FDA bipolar approved children?</th>
<th>Monitoring</th>
<th>Editorial Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium</td>
<td>Yes</td>
<td>Yes (Age ≥7 maintenance, acute mixed or manic)</td>
<td>Baseline EKG, BUN/creatin, TSH, CBC. Lithium level after 5 days. Q3month Lithium level. Q6mo TSH,BUN/creatinine</td>
<td>Sedating, weight gain, renal and thyroid toxicity. If dehydration can get acute toxicity. Reduces suicide risk though an overdose can be fatal. Caution with NSAIDs.</td>
</tr>
<tr>
<td>Lamotrigine</td>
<td>No</td>
<td>No</td>
<td>CBC, LFT at baseline, in 2-4 weeks, then Q6 month. Monitor for rash</td>
<td>Stevens-Johnson rash risk requires slow titration, adult studies support use for bipolar depression</td>
</tr>
<tr>
<td>Valproate</td>
<td>No</td>
<td>No</td>
<td>CBC, LFT at baseline, in 3 month, then Q6month. VPA level checks needed</td>
<td>Weight gain, sedation, rare severe toxicity of liver, ↓platelets ↓WBC, risk of polycystic ovarian syndrome. Teratogen.</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>No - not typically recommended</td>
<td>No</td>
<td>CBC, LFT at baseline, then every 3-6 months. CBZ level checks needed</td>
<td>Aplasia and rash risk. Oxcarbazepine bipolar trial with kids had negative results</td>
</tr>
</tbody>
</table>
ABNORMAL INVOLUNTARY MOVEMENT SCALE (AIMS)

**INSTRUCTIONS:** COMPLETE EXAMINATION PROCEDURE BEFORE MAKING RATINGS.

**MOVEMENT RATINGS:** RATE HIGHEST SEVERITY OBSERVED, RATE MOVEMENTS THAT OCCUR UPON ACTIVATION ONE LESS THAN THOSE OBSERVED SPONTANEOUSLY.

**EXAMINATION PROCEDURE**

Either before or after completing the examination procedure observe the patient unobtrusively at rest (e.g., in waiting room). The chair to be used in this examination should be a hard, firm one without arms.

1. Ask patient whether there is anything in his/her mouth (i.e., gum, candy, etc.) and if there is, to remove it.
2. Ask patient about the current condition of his/her teeth. Ask patient if he/she wears dentures. Do teeth/dentures bother patient now?
3. Ask patient whether he/she notices any movements in mouth, face, hands, or feet. If yes, ask to describe and to what extent they currently bother patient or interfere with his/her activities.
4. Have patient sit in chair with hands on knees legs slightly apart and feet flat on floor. Look at entire body for movements while in this position.
5. Ask patient to sit with hands hanging unsupported. If male, between legs; if female and wearing a dress, hanging over knees (observe hands and other body areas.)
6. Ask patient to open mouth. (Observe tongue at rest within mouth.) Do this twice.
7. Ask patient to protrude tongue. Observe abnormalities of tongue movement. Do this twice.
8. Ask patient to tap thumb, with each finger, as rapidly as possible for 10-15 seconds; separately with right hand, then with left hand. (Observe facial and leg movements.)
9. Flex and extend patient’s left and right arms (one at a time). (Note any rigidity and rate on Dotes.)
10. Ask patient to stand up. (Observe in profile. Observe all body areas again. Hips included.)
11. Ask patient to extend both arms outstretched in front with palms down. (Observe trunk, legs, and mouth.)
12. Have patient walk a few paces, turn, and walk back to chair. (Observe hands and gait) Do this twice.

**ACTIVATED MOVEMENTS**

1. Muscles of facial expression e.g., movements of forehead, eyebrows, periorbital area, cheeks; include frowning, blinking, smiling, grimacing
2. Lips and perioral area e.g. puckering, pouting, smacking
3. Jaw e.g., biting, clenching, chewing, mouth opening, lateral movement
4. Tongue rate only increase in movement both in and out of mouth. Not inability to sustain movement
5. Upper (arms, wrists, hands, fingers) include choreic movements (i.e., rapid, objectively purposeless, irregular spontaneous) athetoid movements (i.e., slow irregular, complex serpentine). Do not include tremor (i.e., repetitive, regular, rhythmic)
6. Lower (legs, knees, ankles, toes) e.g., lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot
7. Neck, shoulders, hips e.g., rocking, twisting, squirming pelvic gyrations
8. Severity of abnormal action
9. Incapacitation due to abnormal movements
10. Patient’s awareness of abnormal movements
11. Current problems
12. Does patient usually wear dentures?

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**NOT APPLICABLE:** PATIENT HAS NO HISTORY OF TREATMENT WITH NEUROLEPTICS FOR ONE MONTH OR MORE.

**EXAMINATION COMPLETED**

**PHYSICIAN’S SIGNATURE** .......................................................... **DATE OF EXAMINATION** ........................................

REVISED 03/20/97

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Monitoring for all atypical antipsychotics: AIMS exam at baseline and ~Q6months due to risk of tardive dyskinesia. Warn of dystonia risk. Weight checks, fasting glucose/lipid panel ~Q6months at minimum.
Bipolar Disorder Resources

Information for Families

There is no shortage of books written about childhood bipolar disorder. Despite this fact, quality research based and balanced information is hard to find. This reflects the fact that an intense professional debate is currently raging about how bipolar disorder in children is defined, with some authors using “bipolar, unspecified type” as a label for any very irritable child.

Families should start their learning about bipolar disorder with the following websites that provide high quality information and support.

Books families may find helpful:

An Unquiet Mind (1995), by Kay Redfield Jamison, MD (a memoir by a bipolar disorder researcher who had the illness herself — can be helpful for understanding the nature of Bipolar I illness)
Bipolar Disorder for Dummies (2005), by Candida Fink, MD and Joe Craynak (don’t be put off by the name of the book, it is balanced and easy to read)
The Bipolar Workbook: Tools for controlling your mood swings (2006), by Monica Ramirez Basco (contains some practical advice, based on CBT principles)
Your Child Does Not Have Bipolar Disorder (2011) by Stuart Kaplan (describes when a bipolar label would not be appropriate, and how we know how to help irritable, angry, explosive children)
The Bipolar Teen: What You Can Do to Help Your Child and Your Family (2007), by David Miklowitz, PhD and Elizabeth George, PhD

Websites families may find helpful:

American Academy of Child and Adolescent Psychiatry, Practice Parameter on Bipolar Disorder. This contains a very detailed review of treatments.
American Academy of Child and Adolescent Psychiatry Bipolar disorder Resource Center, has video clips, “facts for families,” and many other resource links
www.aacap.org/aacap/families_and_youth/resource_centers/bipolar_disorder_resource_center/home.aspx
National Institute of Mental Health, bipolar disorder section
National Alliance for the Mentally Ill
www.nami.org
Depression and Bipolar Support Alliance
www.dbsalliance.org
Parents Med Guide, contains bipolar disorder medication information from American Psychiatric Association and American Academy of Child and Adolescent Psychiatry
www.parentsmedguide.org