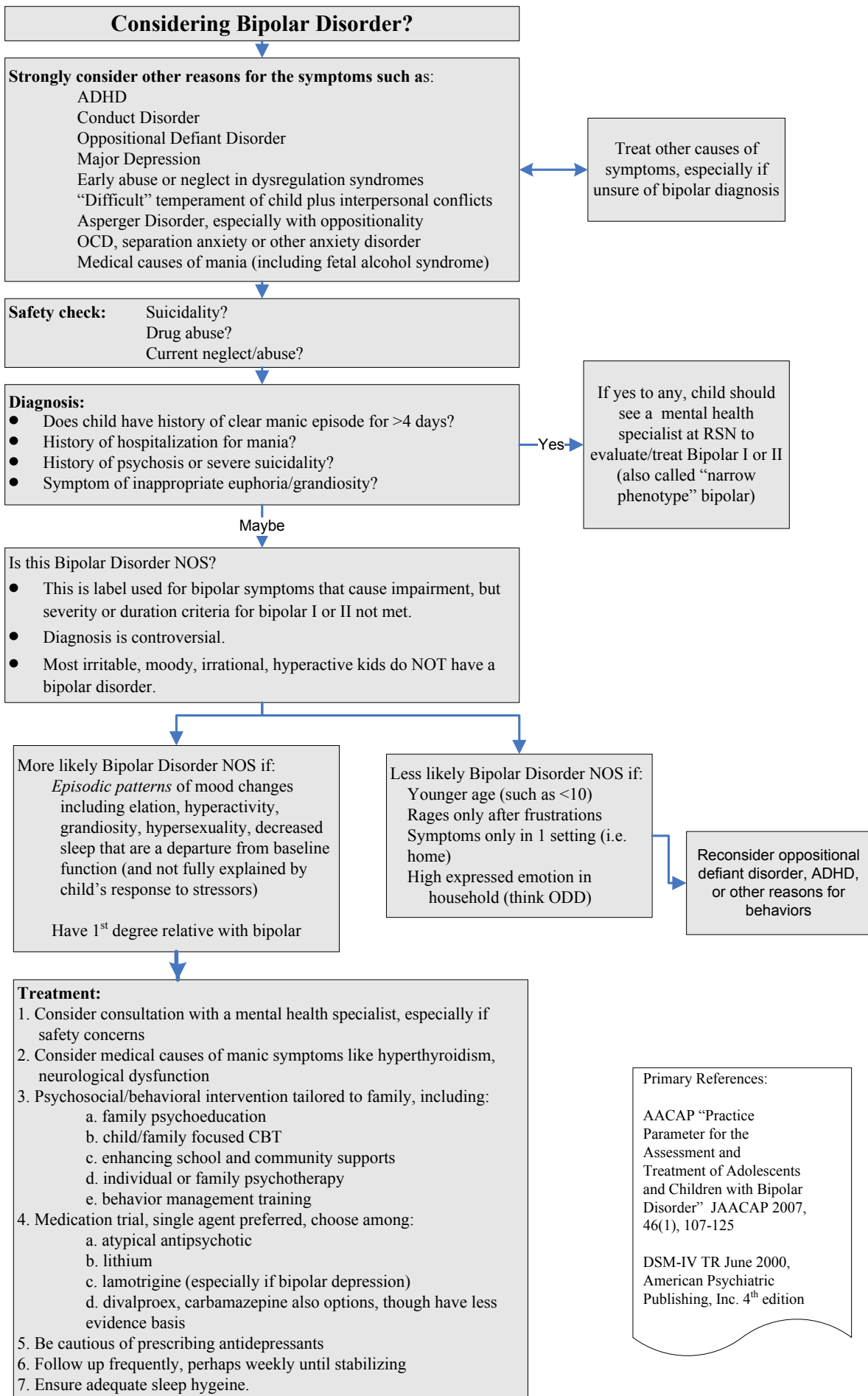


# Bipolar Disorder

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.

In an ideal world, 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.



# Bipolar Disorder Medications (page 1)

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

## Atypical Antipsychotics

Drug Name	Dosage Form	Usual Starting Dose	Sedation	Weight Gain	EPS (stiff muscles)	Bipolar (+) child RCT evidence?	FDA bipolar approved?	Editorial Comments
Risperidone (Risperdal)	0.25, 0.5, 1, 2, 3, 4mg 1mg/ml	0.25mg QHS	+	+	+	Yes	Yes (Age >10)	Generic forms. More dystonia risk than rest
Aripiprazole (Abilify)	2, 5, 10, 15, 25, 30mg 1mg/ml	2mg QD	+	+	+/-	Yes	Yes (Age >10)	Long ½ life, can take weeks to build effect
Quetiapine (Seroquel)	25, 50, 100, 200, 300, 400mg	25mg BID	++	+	+/-	Yes	Yes (Age >10)	Pills larger, could be hard for kids to swallow.
Ziprasidone (Geodon)	20, 40, 60, 80mg	20mg BID	+	+	+/-	No	No	Greater risk of QT lengthen, EKG check
Olanzapine (Zyprexa)	2.5, 5, 7.5, 10, 15, 20mg	2.5 mg QHS	++	++	+/-	Yes	Yes (Age >13)	Greatest risk of weight gain, ↑cholesterol

Table + and – from Fedorowicz V. J. & Fombonne E. (2005), Lublin, H. et al (2005), and Correll C. U. et al (2009)

### **Monitoring for all atypical antipsychotics:**

1. Weight checks and fasting glucose/lipid panel roughly every Q6months.
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 (page 2)

## Other Medication Options

Drug Name	Bipolar (+) RCT evidence in kids	FDA bipolar approved children?	Monitoring	Editorial Comments
Lithium	Yes	Yes (over age 12)	Baseline EKG, BUN/ creat, TSH, CBC. Lithium level after 5 days. Q3month Lithium level. Q6mo TSH, BUN/crt	Sedating, weight gain, renal and thyroid toxicity. If dehydration can get acute toxicity. Reduces suicide risk though an overdose can be fatal
Valproate	No	No	CBC, LFT at baseline, in 3 month, then Q6month. VPA level checks needed	Weight gain, sedation, rare severe toxicity of liver, ↓platelets ↓WBC, risk of polycystic ovary syndrome
Carbamazepine	No	No	CBC, LFT at baseline, then every 3-6 months. CBZ level checks needed	Aplasia and rash risk. Note a negative result trial with kids and oxcarbazepine & bipolar
Lamotrigine	No	No	CBC, LFT at baseline, in 2-4 weeks, then Q6 month Monitor for rash	Stevens-Johnson rash risk requires slow titration, adult studies support use for bipolar depression

## 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.

CODE 0 = NONE  
1 = MINIMAL, MAY BE EXTREME NORMAL  
3 = MODERATE  
2 = MILD  
4 = SEVERE

### EXAMINATION PROCEDURE

EITHER BEFORE OR AFTER COMPLETING THE EXAMINATION PROCEDURE OBSERVE THE PATIENT UNOBTUSIVELY AT REST (E.G., IN WAITING ROOM). THE CHAIR TO BE USED IN THIS EXAMINATION SHOULD BE A HARD, FIRM ONE WITHOUT ARMS.

<ol style="list-style-type: none"> <li>1. ASK PATIENT WHETHER THERE IS ANYTHING IN HIS/HER MOUTH (I.E., GUM, CANDY, ETC.) AND IF THERE IS, TO REMOVE IT.</li> <li>2. ASK PATIENT ABOUT THE CURRENT CONDITION OF HIS/HER TEETH. ASK PATIENT IF HE/SHE WEARS DENTURES. DO TEETH/DENTURES BOTHER PATIENT NOW?</li> <li>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.</li> <li>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)</li> <li>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.)</li> <li>6. ASK PATIENT TO OPEN MOUTH. (OBSERVE TONGUE AT REST WITHIN MOUTH,) DO THIS TWICE.</li> </ol>	<ol style="list-style-type: none"> <li>7. ASK PATIENT TO PROTRUDE TONGUE. OBSERVE ABNORMALITIES OF TONGUE MOVEMENT.) DO THIS TWICE.</li> <li>*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.)</li> <li>9. FLEX AND EXTEND PATIENT'S LEFT AND RIGHT ARMS (ONE AT A TIME). (NOTE ANY RIGIDITY AND RATE ON DOTES.)</li> <li>10. ASK PATIENT TO STAND UP. (OBSERVE IN PROFILE. OBSERVE ALL BODY AREAS AGAIN. HIPS INCLUDED.)</li> <li>*11. ASK PATIENT TO EXTEND BOTH ARMS OUTSTRETCHED IN FRONT WITH PALMS DOWN. (OBSERVE TRUNK, LEGS, AND MOUTH.)</li> <li>*12. HAVE PATIENT WALK A FEW PACES, TURN, AND WALK BACK TO CHAIR. (OBSERVE HANDS AND GAIT) DO THIS TWICE.</li> </ol> <p>** ACTIVATED MOVEMENTS</p>																								
<b>FACIAL AND ORAL MOVEMENTS:</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">1. MUSCLES OF FACIAL EXPRESSION E.G., MOVEMENTS OF FOREHEAD, EYEBROWS, PERIORBITAL AREA, CHEEKS; INCLUDE FROWNING, BLINKING, SMILING, GRIMACING</td> <td style="width: 5%;">0</td> <td style="width: 5%;">1</td> <td style="width: 5%;">2</td> <td style="width: 5%;">3</td> <td style="width: 5%;">4</td> </tr> <tr> <td>2. LIPS AND PERIORAL AREA E.G., PUCKERING POUTING, SMACKING</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>3. JAW E.G., BITING CLENCHING, CHEWING, MOUTH OPENING, LATERAL MOVEMENT</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>4. TONGUE RATE ONLY INCREASE IN MOVEMENT BOTH IN AND OUT OF MOUTH. NOT INABILITY TO SUSTAIN MOVEMENT</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table>	1. MUSCLES OF FACIAL EXPRESSION E.G., MOVEMENTS OF FOREHEAD, EYEBROWS, PERIORBITAL AREA, CHEEKS; INCLUDE FROWNING, BLINKING, SMILING, GRIMACING	0	1	2	3	4	2. LIPS AND PERIORAL AREA E.G., PUCKERING POUTING, SMACKING	0	1	2	3	4	3. JAW E.G., BITING CLENCHING, CHEWING, MOUTH OPENING, LATERAL MOVEMENT	0	1	2	3	4	4. TONGUE RATE ONLY INCREASE IN MOVEMENT BOTH IN AND OUT OF MOUTH. NOT INABILITY TO SUSTAIN MOVEMENT	0	1	2	3	4
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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

Public domain, formatted by University of Massachusetts Medical Center Adult Mental Health Unit  
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 NOS” 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)

### **Websites families may find helpful:**

American Academy of Child and Adolescent Psychiatry, Practice Parameter on Bipolar Disorder, updated in 2007. This is a very detailed review of our current state of knowledge and a review of currently available treatments.

[www.aacap.org/galleries/PracticeParameters/JAACAP\\_Bipolar\\_2007.pdf](http://www.aacap.org/galleries/PracticeParameters/JAACAP_Bipolar_2007.pdf)

National Institute of Mental Health

[www.nimh.nih.gov](http://www.nimh.nih.gov)

National Alliance for the Mentally Ill

[www.nami.org](http://www.nami.org)

American Academy of Child and Adolescent Psychiatry, select “Facts for Families”

[www.aacap.org](http://www.aacap.org)

The Balanced Mind Foundation

[www.thebalancedmind.org](http://www.thebalancedmind.org)