

# **Depression**

## **Treatment in Adults**

### **For Primary Care Providers**

Carla Cobb, Pharm.D., BCPP  
Leanna Donner, Pharm.D.  
D'Anne Holley, RPh

# Table of Contents

<b>Depression</b>	<b>page</b>
Depression Treatment Overview	3
Depression Algorithm	4
Antidepressant Medications	5-6
Antidepressant Augmenting Agents	7
Antidepressant Side Effects	8
Patient Health Questionnaire (PHQ-9)	9
PHQ Scoring Guide	10

**Bipolar Disorder** ....See back of pocket guide

## Contacts

For additional pocket guides, contact:

Merit Medication Consultants

3936 Ave. B, Suite D

Billings, MT 59102

406-281-8252

[info@meritmeds.com](mailto:info@meritmeds.com)

© 2011, Carla Cobb

This pocket guide is intended for the use of licensed medical care providers only. Patients and/or individuals who are not licensed medical care providers who come into possession of this guide should confirm any information obtained from or through this guide with other sources, and review all information regarding any medical condition or treatment with a physician.

Although every effort has been made to ensure that drug doses and other information are presented accurately in this guide, the ultimate responsibility rests with the prescribing physician. Neither the publisher, the sponsor, nor the authors can be held responsible for errors or for any consequences arising from the use of information contained herein. Readers are strongly urged to consult any relevant primary literature. No claims or endorsements are made for any drug or compound currently under clinical investigation.

The information provided herein is not intended or implied to be a substitute for professional medical advice, diagnosis or treatment. All content, including text, graphics, images and information, contained on or available through this guide is for general information purposes only. You are encouraged to confirm any information obtained from or through this guide with other sources, and review all information regarding any medical condition or treatment as you deem is appropriate in your medical judgment. The publisher does not advise or recommend to its readers treatment or action with regard to matters relating to a patient's health or well-being other than to suggest that readers consult appropriate health-care materials in such matters. No action should be taken based solely on the content of this guide.

NEVER DISREGARD YOUR (OR ANOTHER'S) PROFESSIONAL MEDICAL OPINION OR TRAINING BECAUSE OF SOMETHING YOU HAVE READ IN THIS POCKET GUIDE.

# Depression Treatment Overview

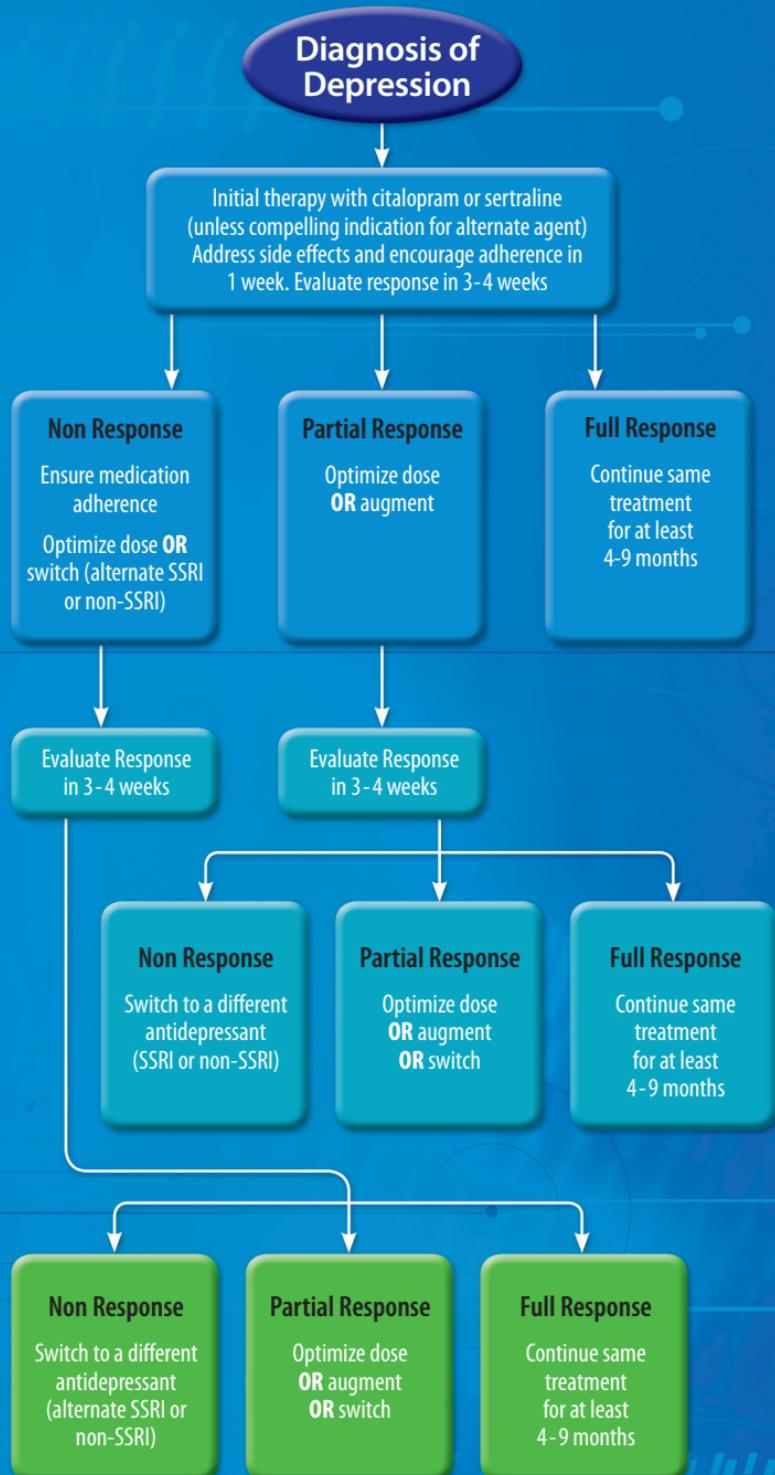
2-4, 13

Goals of Therapy	<ul style="list-style-type: none"><li>• Remission of symptoms (PHQ-9 &lt;5)</li><li>• Improve function</li><li>• Improve quality of life</li><li>• Incorporate psychotherapy</li><li>• Prevent relapse</li></ul>		
Medication Progress Monitoring	Week 1	<ul style="list-style-type: none"><li>• Decrease in anxiety</li><li>• Appetite and sleep pattern normalization</li><li>• Assess side effects and encourage adherence</li></ul>	
	Week 2 & 3	<ul style="list-style-type: none"><li>• Increase in energy (may increase risk of suicide)</li><li>• Improved concentration and memory</li></ul>	
	Week 4-6	<ul style="list-style-type: none"><li>• Improved mood</li><li>• Decreased suicidal ideation</li><li>• Assess sexual function</li></ul>	
Duration of Treatment	<ul style="list-style-type: none"><li>• 6-12 weeks of treatment is needed to stabilize depressive symptoms</li><li>• Continue therapeutic dose for at least 4-9 months then may try to taper</li><li>• Monitor for signs of relapse</li><li>• Maintenance treatment may be needed for severe or recurrent episodes</li></ul>		
Discontinuation of Antidepressants	<ul style="list-style-type: none"><li>• Reduce dose by no more than 25% every week over the course of 4-8 weeks</li><li>• If intolerable withdrawal symptoms occur, resume previous dose and slow the taper rate</li></ul>		
Common Withdrawal Symptoms	<ul style="list-style-type: none"><li>• Flu-like symptoms</li><li>• Dizziness</li><li>• Shock sensations</li><li>• Malaise</li></ul>	<ul style="list-style-type: none"><li>• Headache</li><li>• Nausea</li><li>• Lethargy</li><li>• Abnormal dreams</li></ul>	<ul style="list-style-type: none"><li>• Changes in mood, sleep, memory and concentration</li></ul>

## References:

1. Lacy CF, Armstrong LL, Goldman MP, Lance LL. Lexi-Comp's Drug Information Handbook. 16th ed. Hudson (OH): Lexi-Comp; 2008.
2. Teter CJ, Kando JC, Wells BG, Hayes PE. Depressive Disorders. In: Dipiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, editors. Pharmacotherapy. A Pathophysiological Approach. 7th ed. New York (NY): McGraw Hill;2008: 1123-1139.
3. Gourley DR, Eoff JC. The APhA Complete Review for Pharmacy. 8th ed. Washington (DC): American Pharmacists Association; 2011.
4. Oxman TE. Clinician Participant Manual for the Prepared Practice: Managing Depression in Primary Care. 2006.
5. Trivedi MH, Rush AJ, Crisman ML et al. Clinical results for patients with major depressive disorder in the Texas Medication Algorithm Project. *Arch Gen Psychiatry*. 2004;61:669-80.
6. Aronson SC, Ayres VE. Depression: A treatment algorithm for the family physician. *Hosp Physician*; 2000: 21-38.
7. Gold Standard, Inc. Monographs. Clinical Pharmacology [database online]. Available at: <http://www.clinicalpharmacology.com>. Accessed: March 22, 2011.
8. Trivedi MH, Fava M, et al. Medication augmentation after the failure of SSRIs for depression. *New Engl J Med* 2006;354:1243-54
9. Evidence-based best practices for the treatment of bipolar disorder in South Carolina primary care. South Carolina College of Pharmacy.
10. Drayton SJ, Weinstein B. Bipolar Disorder. In: Dipiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, editors. Pharmacotherapy. A Pathophysiological Approach . 7th ed. New York (NY): McGraw Hill;2008:1141-1160.
11. Suppes T, Dennehy EB, Hirschfeld R, et al. The Texas implementation of medication algorithms update to the algorithms for treatment of bipolar I disorder. *J Clin Psychiatry* 2005;66:870-886.
12. Clinical Handbook of Psychotropic Drugs. Bechtlbnyk-Butler KZ, Jeffries JJ, editors. Toronto, ON, Hogrefe & Huber, 2006.
13. Micromedex 2.0, accessed 04/10/2011.
14. Cipriani A, Furukawa TA, Salanti G et al. Comparative efficacy and acceptability of 12 new generation antidepressants: a multiple-treatments meta-analysis. *Lancet* 2009;373:746-758
15. Management of Bipolar Disorder Working Group. VA/DoD clinical practice guideline for management of bipolar disorder in adults. Washington (DC): Department of Veterans Affairs, Department of Defense; 2010 May. 176 p.

# Depression Treatment Algorithm<sup>2,5-6, 14</sup>



# Antidepressant Medications<sup>1-4, 14</sup>

## Selective Serotonin Reuptake Inhibitors (SSRIs)

Monitor PHQ-9 and suicidal ideation

Generic (brand name)	Initial Dose	Max Dose (mg/day)	Titration	Comments
Citalopram (Celexa®)	10 mg daily	40	May increase by 10-20 mg increments at intervals of no less than 1 week	<ul style="list-style-type: none"> <li>QT prolongation</li> <li>Caution in heart disease, drug interactions</li> </ul>
Escitalopram (Lexapro®)	10 mg daily	20	May increase to 20 mg daily after 4 weeks	<ul style="list-style-type: none"> <li>Enantiomer of citalopram</li> <li>No generic; expensive</li> </ul>
Fluoxetine (Prozac®)	10-20 mg daily in the morning	80 (most patients respond to 20-40 mg daily)	May increase by 10-20 mg increments after several weeks	<ul style="list-style-type: none"> <li>Long half life so fewer withdrawal symptoms</li> <li>Activating, more drug interactions</li> </ul>
Paroxetine (Paxil®)	10-20 mg daily at bedtime	50	May increase by 10 mg increments at intervals of no less than 1 week	<ul style="list-style-type: none"> <li>More sedation, weight gain, anticholinergic side effects, drug interactions, withdrawal effects</li> <li>CR may cause less GI distress</li> </ul>
Sertraline (Zoloft®)	25-50 mg daily	200	May increase by 25-50 mg increments at intervals of no less than 1 week	<ul style="list-style-type: none"> <li>Fewer drug interactions</li> <li>More diarrhea</li> <li>Used in geriatric population</li> </ul>

## Bupropion

Monitor PHQ-9 and suicidal ideation

Generic (brand name)	Initial Dose	Max Dose (mg/day)	Titration	Comments
Bupropion (Wellbutrin®)	IR: 100 mg BID	IR: 450	IR: may increase after 4 days if tolerated (4 hours between doses, max single dose 150 mg)	<ul style="list-style-type: none"> <li>Contraindicated in patients with bulimia, anorexia nervosa, and seizures</li> <li>Low incidence of sexual dysfunction, weight gain</li> <li>Activating, insomnia; avoid bedtime dosing</li> <li>May be helpful for ADHD and smoking cessation</li> </ul>
	SR: 150 mg Q AM	SR: 400	SR: may increase to 150 mg BID by day 4 if tolerated (8 hours between doses)	
	XL: 150 mg Q AM	XL: 450	XL: may increase to 300 mg/day by day 4 if tolerated	

# Antidepressant Medications<sup>1-4, 14</sup>

## Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)

Monitor blood pressure, PHQ-9, suicidal ideation

Medication (brand name)	Initial Dose	Max Dose (mg/day)	Titration	Comments
Duloxetine (Cymbalta®)	40-60 mg daily (may be given in divided doses)	120 (no additional benefit >60)	Start at 30 mg daily for 1 week if tolerability is a concern, then increase dose	<ul style="list-style-type: none"><li>• No generic, expensive</li><li>• Contraindicated in patients with narrow angle glaucoma</li></ul>
Venlafaxine (Effexor®)  (Effexor XR®)	IR: 37.5 mg BID	IR: 375 (in divided doses)	May increase by 75 mg increments at intervals of at least 4 days	
	XR: 37.5-75 mg daily	XR: 225	XR: 37.5 mg in AM then increase to 75 mg in AM after 1 week, 150 mg in AM after 2 weeks; if partial response after 4 weeks may increase to 225 mg in AM	<ul style="list-style-type: none"><li>• Less GI irritation</li></ul>
Desvenlafaxine (Pristiq)	50 mg	400 (no additional benefit >50)	Titrate as tolerated	<ul style="list-style-type: none"><li>• Metabolite of venlafaxine</li><li>• No generic, expensive</li></ul>

## Mirtazapine

Monitor PHQ-9, suicidal ideation, weight, neutropenia

Medication (trade name)	Initial Dose	Max Dose (mg/day)	Titration	Comments
Mirtazapine (Remeron®)	15 mg at bedtime	45	May increase dose by 15 mg increments at intervals of 1 or 2 weeks	<ul style="list-style-type: none"><li>• Less sexual dysfunction</li><li>• Sedating; may be less sedating as dose is increased</li><li>• May stimulate appetite, weight gain</li></ul>

# Antidepressant Augmenting Agents<sup>1,6-8</sup>

Generic (brand name)	Initial Dose	Max Dose (mg/day)	Side Effects	Comments
<b>Buspirone*</b> (BuSpar®)	15 mg/day week 1, 30 mg/day week 2, 45 mg/day weeks 3-5, then 60 mg/ day	60 mg/ day (in 2 divided doses)	Dizziness, nausea, headache, nervousness, diarrhea	<ul style="list-style-type: none"> <li>Give in divided doses</li> </ul>
<b>Bupropion*</b> (Wellbutrin SR®)	200 mg/day for 2 wks, 300 mg/day by week 4, 400 mg/day week 6	400 mg/ day (in 2 divided doses)	Restlessness, insomnia, nausea, headache, seizures  Also see page 8	<ul style="list-style-type: none"> <li>Give in divided doses</li> <li>See page 5</li> </ul>
<b>Liothyronine*</b> (Cytomel®)	25 mcg/day for 1 wk then 50 mcg/day	50 mcg/ day	May aggravate cardiac conditions  Symptoms of excessive dosage: anorexia, diaphoresis, heat intolerance, nausea/ vomiting, tremor	<ul style="list-style-type: none"> <li>Monitor BUN/Cr in elderly patients</li> <li>Response usually within 3 weeks</li> </ul>
<b>Lithium*</b> (Eskalith®, Lithobid®)	450 mg at bedtime (decrease to 225 mg if not tolerated initially)	900 mg/ day after 1 week	Gastrointestinal distress, polydipsia/ polyuria, acne, weight gain, fine hand tremor	<ul style="list-style-type: none"> <li>See Bipolar Guide pages 6, 8</li> <li>Therapeutic level: may be lower for depression augmentation</li> <li>Avoid in renal impairment</li> </ul>
<b>Quetiapine</b> (Seroquel®, Seroquel XR®)	50 mg at bedtime for 2 days then 150 mg for 2 days	300 mg/ day	Hypotension, somnolence, sedation, headache, agitation, dizziness, endocrine and metabolic changes, dry mouth, weight gain, extrapyramidal symptoms	<ul style="list-style-type: none"> <li>Monitor blood glucose, liver enzymes, lipids, weight, movement disorder side effects</li> </ul>
<b>Aripiprazole</b> (Abilify®)	2-5 mg/ day, increase by up to 5 mg/day at one week intervals	15 mg/ day	Headache, agitation, insomnia, somnolence, extrapyramidal symptoms, nausea, dyspepsia	<ul style="list-style-type: none"> <li>Monitor blood glucose, liver enzymes, lipids, weight, movement disorder side effects</li> <li>Antipsychotic with least weight gain</li> </ul>

\* Dosing per STAR \* D Trial<sup>8</sup>

# Antidepressant Side Effects<sup>1-2, 4, 13</sup>

Side Effects	SSRIs	SNRIs	Bupropion (Wellbutrin®)	Mirtazapine (Remeron®)	Management
Orthostatic hypotension	+	++	+	+++	<ul style="list-style-type: none"> <li>Rise from laying/sitting position slowly</li> </ul>
Conduction abnormalities	+	++	++	++	<ul style="list-style-type: none"> <li>Monitor ECG if indicated</li> </ul>
Sedation	++	++	+	+++	<ul style="list-style-type: none"> <li>Bedtime administration</li> </ul>
Anticholinergic (dry mouth/eyes, constipation, urinary retention, tachycardia)	+	++	+	++	<ul style="list-style-type: none"> <li>Increase fluids</li> <li>Sugarless gum</li> <li>Dietary fiber</li> <li>Artificial tears</li> </ul>
GI distress, nausea	++++	++++	+++	++	<ul style="list-style-type: none"> <li>Often improves in 1-2 weeks</li> <li>Take with food</li> </ul>
Restlessness, jitters, tremors	+++	+++	++++	+	<ul style="list-style-type: none"> <li>Start with low doses</li> <li>Reduce dose temporarily</li> </ul>
Headache	+++	+++	+++	+	<ul style="list-style-type: none"> <li>Lower dose if needed</li> <li>Acetaminophen</li> </ul>
Insomnia	+++	+++	+++	+	<ul style="list-style-type: none"> <li>Promote sleep hygiene</li> <li>Take in the morning</li> </ul>
Sexual dysfunction	++++	++++	+	+	<ul style="list-style-type: none"> <li>May be part of disease</li> <li>Decrease dose if needed</li> <li>Consider adding Wellbutrin</li> </ul>
Seizures	+	+	+++	++	<ul style="list-style-type: none"> <li>Discontinue antidepressant</li> </ul>
Weight gain	++	++	++	++++	<ul style="list-style-type: none"> <li>Exercise</li> <li>Diet</li> <li>Consider switching antidepressants</li> </ul>
Agranulocytosis	+	+	+	++	<ul style="list-style-type: none"> <li>Monitor for signs of infection and flu-like symptoms</li> <li>Stop drug, check WBC</li> </ul>

## Side Effect Likelihood

Common	++++
Uncommon	+++
Unlikely	++
Rare	+

## SSRIs: Citalopram (Celexa®)

Sertraline (Zoloft®)  
Fluoxetine (Prozac®)  
Paroxetine (Paxil®)  
Escitalopram (Lexapro®)

## SNRIs: Duloxetine (Cymbalta®)

Venlafaxine (Effexor®)  
Desvenlafaxine (Pristiq®)

# Patient Health Questionnaire (PHQ-9)

Over the past 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3
3. Trouble falling asleep, staying asleep or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself – or that you are a failure – or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or, the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thought that you would be better off dead or of hurting yourself in some way	0	1	2	3

Column totals \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_

Add totals together \_\_\_\_\_

10. If you checked off any problems, how difficult have those problems made it for you to do your work, take care of things at home or get along with other people?

- Not difficult at all  
 Somewhat difficult  
 Very difficult  
 Extremely difficult

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

# PHQ-9 Scoring Guide

## Diagnosis

1. Is at least one of the first two questions a **2 or 3**?  Yes  No
2. Calculate symptom count:  
Number of times the patient rates a **2 or 3** for questions 1-8. Count \_\_\_\_\_  
Add 1 if the patient rates question 9 with a **1, 2 or 3**. Count \_\_\_\_\_  
Total Symptom Count \_\_\_\_\_
- Is the total symptom count 5 or more?  Yes  No
3. Is question 10 rated greater than **Not difficult at all**?  Yes  No

### Diagnosis of Depression:

If the answer is YES to 1, 2 and 3 above, make a tentative diagnosis of depression, after ruling out physical causes, normal bereavement and a history of a manic or hypomanic episode. Screen for bipolar disorder using the Mood Disorders Questionnaire (see Bipolar Guide page 9).

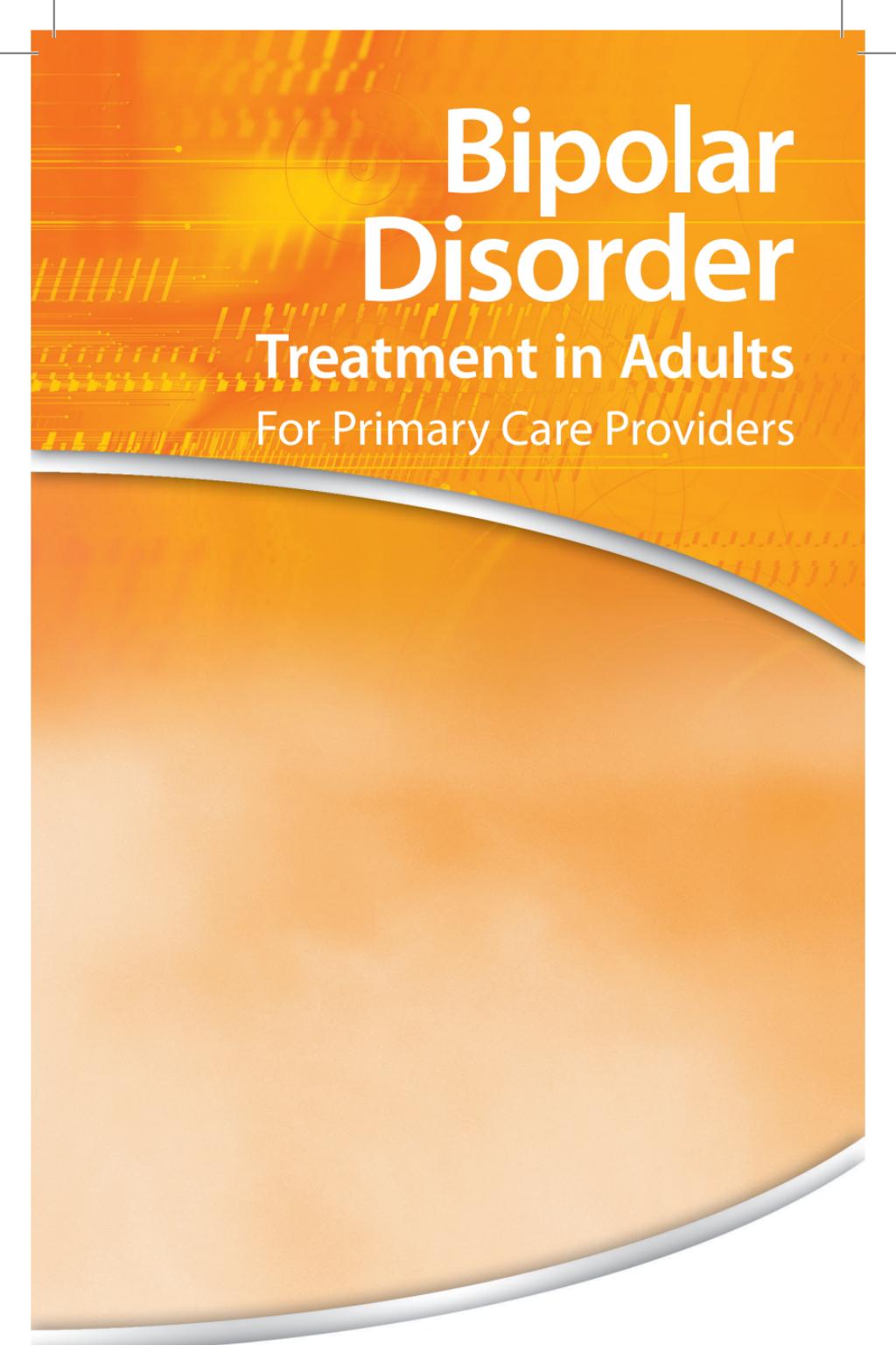
## Treatment and Monitoring

To calculate the **Severity Score** total all of the points from all of the columns.

1. Treatment or treatment change may be warranted if at least one of the first two questions is rated a **2 or 3** OR question 10 is rated at least **Somewhat difficult**.
2. If question 9 is positive, assess for suicide risk.
3. If the **Severity Score** is greater than or equal to 5, use the following table:

Score	Tentative Diagnosis	Treatment Recommendation
5-9	Minimal symptoms	Support, ask to call if worse, return in 1 month
10-14	Minor Depression Dysthymia or Major Depression, mild	Support, contact in one week Antidepressant or psychotherapy, contact in one week
15-19	Major Depression, moderate	Antidepressant or psychotherapy
≥ 20	Major Depression, severe	Antidepressant and psychotherapy (especially if not improved on monotherapy)

4. Monitoring – a change in the **Severity Score** of 5 or more is considered clinically significant in assessing improvement of symptoms.



# Bipolar Disorder

## Treatment in Adults

### For Primary Care Providers

Carla Cobb, Pharm.D., BCPP  
Leanna Donner, Pharm.D.  
D'Anne Holley, RPh

# Table of Contents

<b>Bipolar Disorder</b>	page
Bipolar Treatment Overview	3
Bipolar Depressed Algorithm	4
Bipolar Manic Algorithm	5
Bipolar Disorder Medications	6-7
Mood Stabilizer Monitoring	8
Mood Disorder Questionnaire (MDQ)	9
MDQ Scoring Guide	10

**Depression**.....See back of pocket guide

## Contacts

For additional pocket guides, contact:

Merit Medication Consultants

3936 Ave. B, Suite D

Billings, MT 59102

406-281-8252

[info@meritmeds.com](mailto:info@meritmeds.com)

© 2011, Carla Cobb

## Helpful Websites for Patients and Families:

National Alliance on Mental Illness ..... [www.nami.org](http://www.nami.org)

Substance Abuse and Mental Health Services Administration . . . [www.mentalhealth.org](http://www.mentalhealth.org)

Mental Health America ..... [www.nmha.org](http://www.nmha.org)

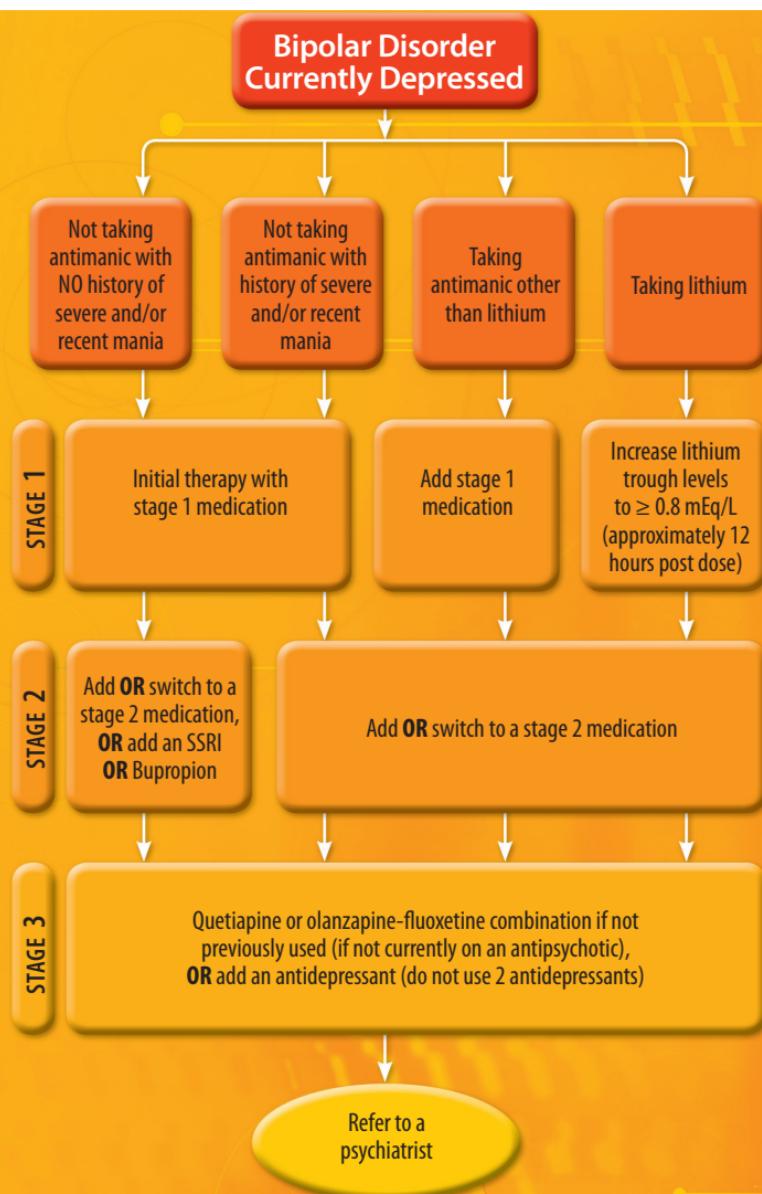
Network of Care for Behavioral Health . . . <http://montana.networkofcare.org>

# Bipolar Treatment Overview<sup>3,10</sup>

Recommend hospitalization for patients with severe, psychotic, or suicidal symptoms.

Goals of Therapy	<p><b>Acute:</b></p> <ul style="list-style-type: none"><li>• Control current episode</li><li>• Reduce harm to self and others</li></ul>
General Approach to Treatment	<p><b>Maintenance:</b></p> <ul style="list-style-type: none"><li>• Prevent or minimize future episodes</li><li>• Optimize medication adherence</li><li>• Reduce drug adverse effects and drug interactions</li><li>• Educate the patient and family about the disorder</li><li>• Follow-up on a regular schedule</li><li>• Optimize function and quality of life</li></ul>
General Approach to Treatment	<p><b>Pharmacological:</b></p> <ul style="list-style-type: none"><li>• Identify and manage secondary causes of mania such as antidepressants, drug abuse, alcohol abuse, hypothyroidism, or dementia</li><li>• Initiate mood stabilizer</li><li>• During acute episode, medications can be added (or increased) and then tapered once the patient is stabilized</li><li>• Do not use an antidepressant without a mood stabilizer</li><li>• Antidepressants may destabilize mood or cause a switch to mania/hypomania</li><li>• Add an antipsychotic if psychosis is present</li></ul> <p><b>Non Pharmacological:</b></p> <ul style="list-style-type: none"><li>• Inform patient, family and caregivers of self-help and support groups</li><li>• Address adequate nutrition, sleep, exercise, and stress reduction</li><li>• Encourage psychotherapy and supportive counseling</li><li>• Minimize nicotine and stop caffeine intake 8 hours prior to bedtime</li><li>• Document mood episodes in a daily mood chart</li><li>• Treat comorbid substance use and abuse</li></ul>
Monitoring	<ul style="list-style-type: none"><li>• Monitor patients every 1-2 weeks for 6 weeks when starting new medications or switching therapies</li><li>• Once stabilized, monitor patient every month for 3 months, then every 2-3 months</li><li>• Monitor for depression using PHQ-9</li><li>• Continually assess suicidality</li><li>• Monitor medication adherence as this may be a reason for non-response and recurrent episodes</li></ul>

# Bipolar Depressed Algorithm<sup>9,11,15</sup>



## Bipolar Algorithm Medications

### Stage 1 Medications

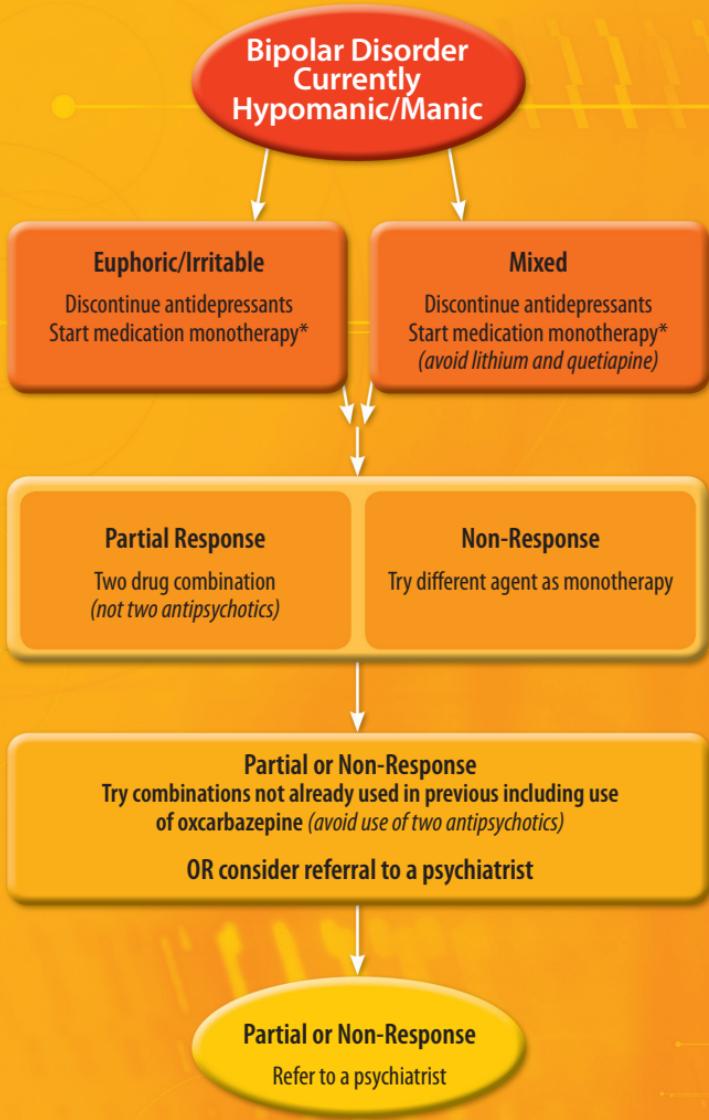
1. Lithium (Eskalith®)
2. Quetiapine (Seroquel®)
3. Lamotrigine (Lamictal®)

### Stage 2 Medications

1. Lithium (Eskalith®)
2. Valproate (Depakote®)
3. Lamotrigine (Lamictal®)
4. Carbamazepine (Tegretol®)
5. 2nd Generation Antipsychotic

- Do not use an antidepressant without a mood stabilizer.
- If partial or non-response after 4-6 weeks of therapy, move to the next stage of treatment.

# Bipolar Manic Algorithm<sup>9,11</sup>



## \* Bipolar Disorder Medications

Lithium (Eskalith®)  
Valproate (Depakote®)  
2nd generation antipsychotics  
Carbamazepine (Tegretol®)

# Bipolar Disorder Medications<sup>3,7,9-10,12</sup>

## Mood Stabilizers

See monitoring on page 8

Generic (brand name)	Initial Dose	Max Dose (mg/day)	Side Effects	Comments
<b>Carbamazepine (CBZ) (Tegretol®)</b>	200 mg BID	1600 mg/ day  Adjust in 200 mg incre- ments	Ataxia, dizziness, sedation, slurred speech, nausea, vomiting, rash	<ul style="list-style-type: none"> <li>• Many drug interactions</li> <li>• Monitor blood levels Goal: 4-12 mcg/ml</li> <li>• Pregnancy category C</li> <li>• Black Box Warning: aplastic anemia/ agranulocytosis</li> <li>• Obtain baseline HLA-B test in Asian patients</li> </ul>
<b>Divalproex sodium (Depakote®)</b>  <b>Valproic Acid (VPA) (Depakene®)</b>	500-1000 mg/day divided BID or at bedtime	60 mg/ kg/day	Nausea, sedation, tremor, weight gain, alopecia, transient elevation in liver enzymes	<ul style="list-style-type: none"> <li>• Black box warning: hepatotoxicity, teratogen, pancreatitis</li> <li>• Monitor blood levels – Goal: 50-125 mcg/ml</li> <li>• Pregnancy category D</li> </ul>
<b>Lamotrigine (Lamictal®)</b>	25 mg/day X 2 weeks, 50 mg/day X 2 weeks, then 100 mg/day X 1 week  With Divalproex/VPA: 25 mg QOD X 2 weeks, then 25 mg/day X 2 weeks, then 50 mg/ day X 1 week  With CBZ: 50 mg/ day X 2 weeks, then 50 mg BID X 2 weeks, then 100 mg BID X 1 week, then 150 mg BID X 1 week	200 mg/ day  With Divalproex/ VPA: 100 mg/day  With CBZ: 400 mg/ day	Dizziness, headache, ataxia, nausea, diplopia, rash	<ul style="list-style-type: none"> <li>• Black box warning: severe rashes such as Stevens-Johnson Syndrome</li> <li>• Pregnancy category C</li> <li>• Adjust dose in renal impairment</li> </ul>
<b>Lithium (Eskalith®) (Lithobid®)</b>	300-600 mg/day at bedtime  >1,200 mg give in divided doses	Based on blood level	Tremor, polydipsia polyuria, nausea (take with food), diarrhea, weight gain, weakness, lethargy, confusion	<ul style="list-style-type: none"> <li>• Drug interactions (NSAIDs, ACEI, Hctz)</li> <li>• Monitor blood levels – Goal for maintenance treatment: 0.8-1.0 mEq/L</li> <li>• Pregnancy category D</li> <li>• Good renal function and adequate salt and fluid intake are essential</li> <li>• Avoid in renal impairment</li> </ul>
<b>Oxcarbazepine (Trileptal®)</b>	300 mg BID	2400 mg/ day	Dizziness, diplopia, fatigue, headache, ataxia, tremor, slurred speech	<ul style="list-style-type: none"> <li>• No drug levels to monitor</li> <li>• Fewer drug-drug interactions than carbamazepine</li> <li>• Adjust dose in renal impairment</li> </ul>

# Bipolar Disorder Medications<sup>3,7,9-10,12</sup>

## Antipsychotics

Monitor blood, glucose, liver enzymes, lipids, weight, movement disorder side effects

Generic (brand name)	Initial Dose	Max Dose (mg/day)	Side Effects	Comments
<b>Aripiprazole</b> (Abilify®)	10-15 mg/day once daily	30 mg/ day	Somnolence, headache, nausea, constipation, dyspepsia, dizziness	<ul style="list-style-type: none"> <li>Minimal sedation and weight gain</li> </ul>
<b>Asenapine</b> (Saphris®)	5-10 mg SL BID	20 mg/ day	Somnolence, dizziness, constipation, akathisia, QT prolongation	<ul style="list-style-type: none"> <li>Sublingual tablet; do not eat or drink for 10 minutes after taking</li> <li>Minimal weight gain</li> </ul>
<b>Olanzapine</b> (Zyprexa®)	10-15 mg/day at bedtime	20 mg/ day	Sedation, orthostasis, weight gain, dry mouth, headache dizziness	<ul style="list-style-type: none"> <li>Zyprexa Zydis – Orally disintegrating tablets useful for patients who cannot chew or who are “cheeking”</li> </ul>
<b>Quetiapine</b> (Seroquel®, Seroquel® XR)	Mania: 50 mg BID Goal: 200 mg BID on day 4  Bipolar Depression: 50 mg at bedtime Goal: 300 mg at bedtime on day 4	800 mg/ day	Sedation, dizziness, headache, weight gain, tremor, constipation	
<b>Risperidone</b> (Risperdal®)	1-2 mg/day at bedtime  Adjust by 1 mg/day at intervals $\geq$ 24 hours	8 mg/day	Orthostasis, dose related extrapyramidal effects, some weight gain, sedation, prolactin elevation	<ul style="list-style-type: none"> <li>Concentrate, oral disintegrating tablets, and long acting injection are available</li> <li>Generic tablets available</li> </ul>
<b>Ziprasidone</b> (Geodon®)	40 mg BID with meals  Increase to 60-80 mg BID with meals on day 2	160 mg/ day	Insomnia, headache, nausea, vomiting, lightheadedness, dizziness	<ul style="list-style-type: none"> <li>Contraindicated with medications that cause QT prolongation</li> <li>Minimal weight gain</li> </ul>

# Bipolar Medication Monitoring<sup>3,9-10,12</sup>

Medication	Test	Baseline	Follow Up	Comments
Lithium	TSH	X	Every 6-12 mos.	May cause hypothyroidism
	CMP	X	Every 12 mos. (every 3 mos. if renal dysfunction)	100% renally eliminated, Lithium toxicity may occur if hyponatremic
	CBC with differential	X	Every month X 3 mos., then as indicated	May cause leukocytosis
	ECG	X	Every 6-12 mos.	May cause ECG changes
	Pregnancy test	X		May cause cardiovascular defects
	Lithium level		After 1-2 weeks of treatment, then monthly X 3 mos., then every 3-6 mos. and as indicated	Obtain level 4-5 days after dosage adjustment and 12 hours after the dose; Goal for Maintenance: 0.8-1.0 mEq/L Toxic level >1.5 mEq/L
Valproate (VPA)	Liver enzymes	X	Every 6 mos.	Hepatically eliminated; black box warning for hepatotoxicity
	CBC with differential	X	Every 6 mos.	May cause thrombocytopenia
	VPA level		Weekly X 2-3 weeks, then every 3 mos. or as indicated	Obtain level 4-5 days after dosage adjustment ; Goal level: 50-125 mcg/ml
	CBC with differential	X	Every 6-12 mos. or as indicated	Monitor routinely (especially during first few months of treatment); Goal level: 4-12 mcg/ml
	Liver enzymes	X	Every 6-12 mos. or as indicated	
	CMP	X	Every 6-12 mos. or as indicated	
	ECG (if pt > 40 yrs or heart dx)	X		
	Serum level		Every 1-2 weeks X 2 mos., then every 3-6 months	
Carbamazepine	Dermatologic	X	Every 3-6 months	Black box warning for severe rashes
	Electrolytes	X		May cause hyponatremia
	Vitals, weight, fasting plasma glucose, fasting lipid profile	X	At 4 weeks, 12 weeks, annually, and as indicated	Metabolic side effects
Lamotrigine/Ocarbazepine/Antipsychotics	** All monitoring parameters should be completed as clinically indicated in addition to the above recommendations.			
	8			

# Mood Disorder Questionnaire (MDQ)

<b>1. Has there ever been a period of time when you were not your usual self and...</b>	<b>Yes</b>	<b>No</b>
...you felt so good or so hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?	<input type="checkbox"/>	<input type="checkbox"/>
...you were so irritable that you shouted at people or started fights or arguments?	<input type="checkbox"/>	<input type="checkbox"/>
...you felt much more self-confident than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you got much less sleep than usual and found that you didn't really miss it?	<input type="checkbox"/>	<input type="checkbox"/>
...you were more talkative or spoke much faster than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...thoughts raced through your head or you couldn't slow your mind down?	<input type="checkbox"/>	<input type="checkbox"/>
...you were so easily distracted by things around you that you had trouble concentrating or staying on track?	<input type="checkbox"/>	<input type="checkbox"/>
...you had more energy than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more active or did many more things than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more social or outgoing than usual, for example you telephoned friends in the middle of the night?	<input type="checkbox"/>	<input type="checkbox"/>
...you were much more interested in sex than usual?	<input type="checkbox"/>	<input type="checkbox"/>
...you did things that were unusual for you or that other people might have thought were excessive, foolish or risky?	<input type="checkbox"/>	<input type="checkbox"/>
...spending money got you or your family in trouble?	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. If you checked YES to more than one of the above, have several of these ever happened during the same period of time?</b>	<input type="checkbox"/>	<input type="checkbox"/>

**3. How much of a problem did any of these cause you – like being unable to work; having family, money or legal troubles; getting into arguments or fights?**

No Problems    Minor Problem    Moderate Problem    Serious Problem

Hirschfeld R et al. Development and validation of a screening instrument for bipolar spectrum disorder: the Mood Disorder Questionnaire. Am J Psychiatry 2000;157:1873–1875.

# MDQ Scoring Guide

## Diagnosis

1. Are there 7 or more **YES** answers to question **1**?  Yes  No
2. Is the answer to question **2** a **YES**?  Yes  No
3. Is question **3** marked **Moderate Problem** or **Serious Problem**?  Yes  No

### **Diagnosis of Bipolar Disorder:**

If all answers are YES then the screen is positive for possible bipolar I disorder. Complete a clinical interview to make a diagnosis. This screen is not as sensitive for Bipolar II Disorder (depression and hypomania).

**For Treatment and Monitoring see “Bipolar Disorder Treatment Overview.”**