Pediatric Mood Disorders

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Project ECHO®
Billings Clinic - Montana

What are mood disorders?

- Unipolar Depression
- Bipolar Depression

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Partnership Access Line

What is the Partnership Access Line?

The Partnership Access Line (PAL) is a state-funded program providing mental health consultation for questions such as diagnostic clarification, medication adjustment or treatment planning.

For more information on the services we provide, please select one of the programs below:

Alaska | Washington | Wyoming

Also in This Section...

- Overview
- Meet the Team
- Care Guides and Resources
- Conferences
- PAL Plus
- Alaska Partnership Access Line (PAL-PAK)
- Washington Partnership Access Line
- Washington's Mental Health Referral Service for Children and Teens
- Wyoming Partnership Access Line
- Contact Us

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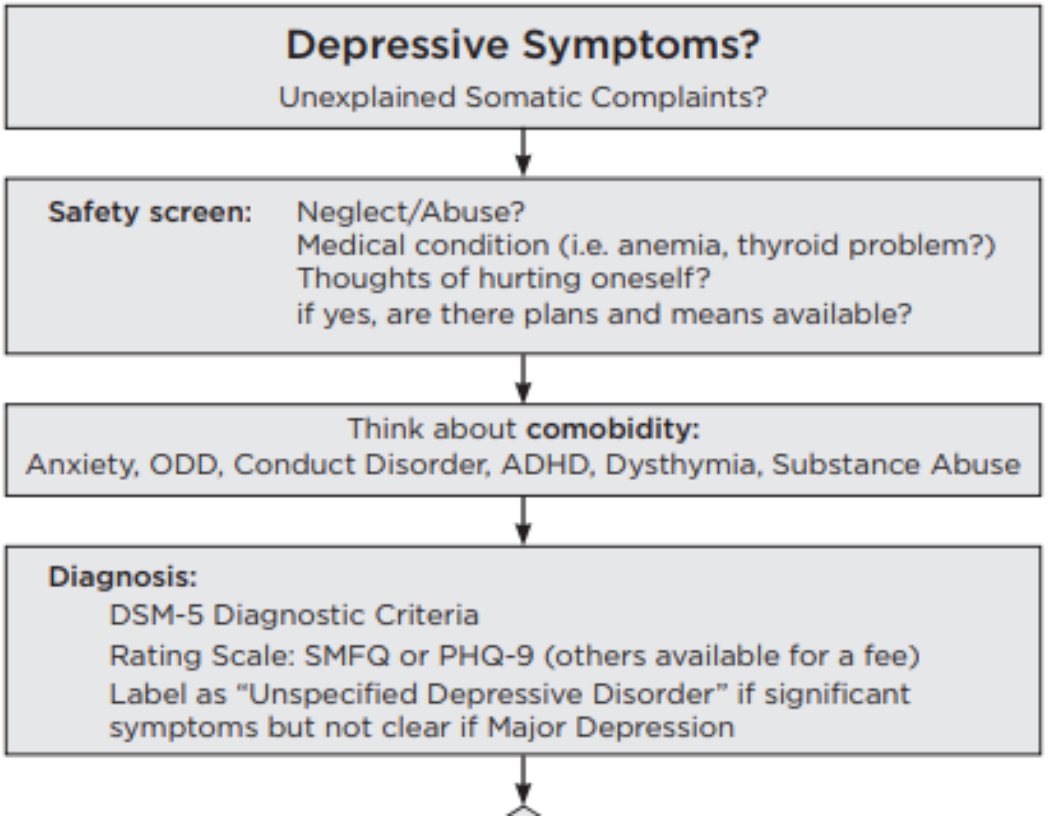
Unipolar Depression Care Pathway



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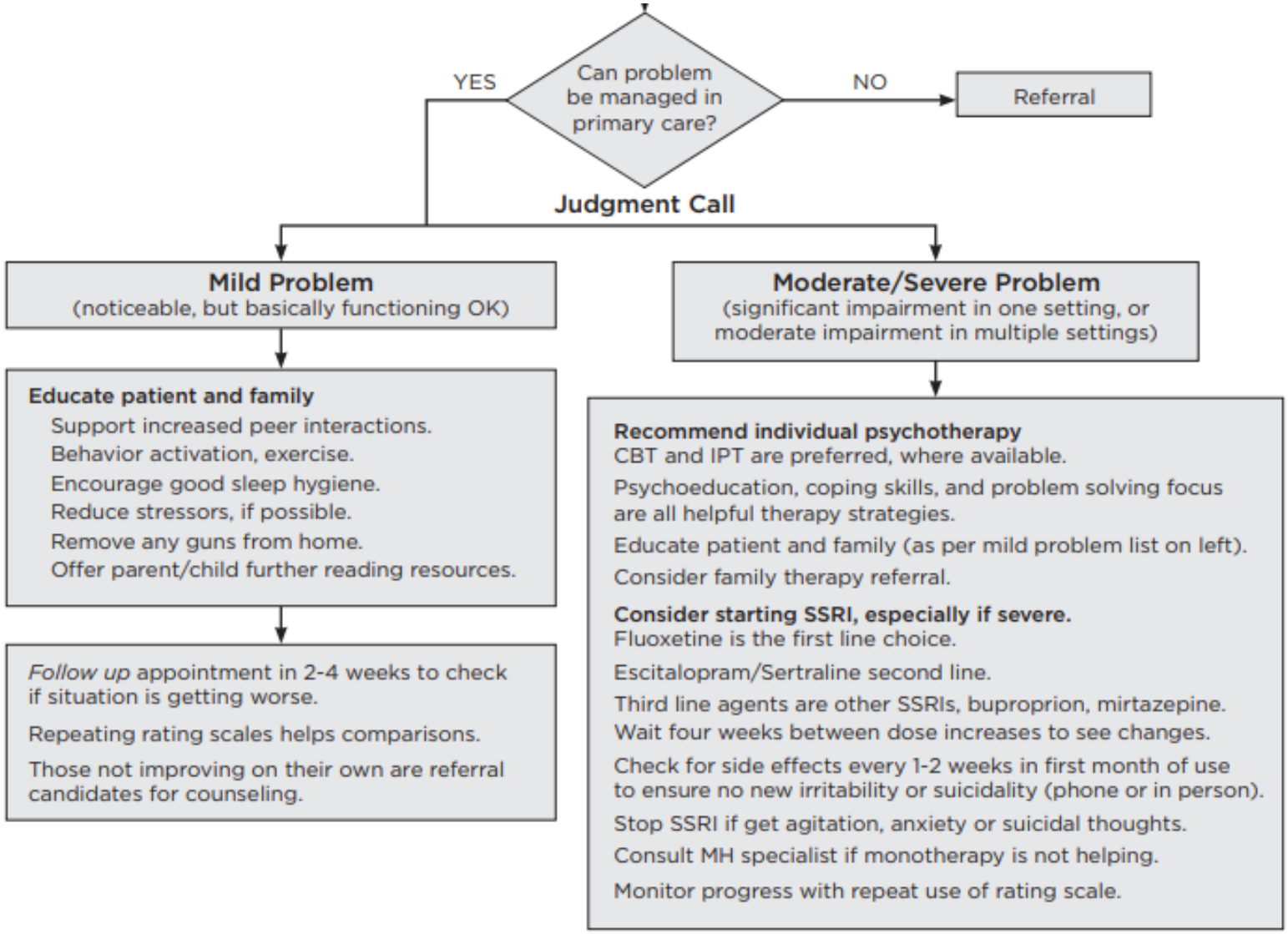
Unipolar Depression Care Pathway



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Drug Name	Dosage Form	Usual starting dose for adolescent	Increase increment (after ~4 weeks)	RCT evidence in kids	FDA depression approved for children?	Editorial Comments
Fluoxetine (Prozac)	10, 20, 40mg 20mg/5ml	10 mg/day (60mg max)*	10-20mg**	Yes	Yes (Age ≥ 8)	Long 1/2 life, no side effect from a missed dose
Fluoxetine considered first line per the evidence base in children						
Sertraline (Zoloft)	25, 50, 100mg 20mg/ml	25 mg/day (200mg max)*	25-50mg**	Yes	No	May be prone to side effects when stopping
Escitalopram (Lexapro)	5, 10, 20mg 5mg/5ml	5 mg/day (20mg max)*	5-10mg**	Yes	Yes (Age ≥ 12)	The active isomer of citalopram.
Escitalopram and Sertraline considered second line per the evidence base in children						
Citalopram (Celexa)	10, 20, 40mg 10mg/5ml	10 mg/day (40mg max)*	10-20mg**	Yes	No	Few drug interactions
Bupropion (Wellbutrin)	75, 100mg 100, 150, 200mg SR forms 150, 300mg XL forms	75 mg/day (later dose this BID) (400mg max)*	75-100mg**	No	No	Can have more agitation risk. Avoid if eat d/o. Also has use for ADHD treatment.
Mirtazapine (Remeron)	15, 30, 45mg	15 mg/day (45mg max)*	15mg**	No	No	Sedating, increases appetite
Venlafaxine (Effexor)	25, 37.5, 50, 75, 100mg 37.5,75, 150 mg ER forms	37.5 mg/day (225mg max)*	37.5 to 75mg**	No (May have higher SI risk than others for children)	No	Only recommended for older adolescents. Withdrawal symptoms can be severe.
Duloxetine (Cymbalta)	20, 30, 40, 60mg	30 mg/day (120mg max)*	30mg	No	No	May cause nausea. May help with somatic symptoms.
Chalopram, bupropion, mirtazapine, venlafaxine, and duloxeline considered third line treatments per the evidence base in children						

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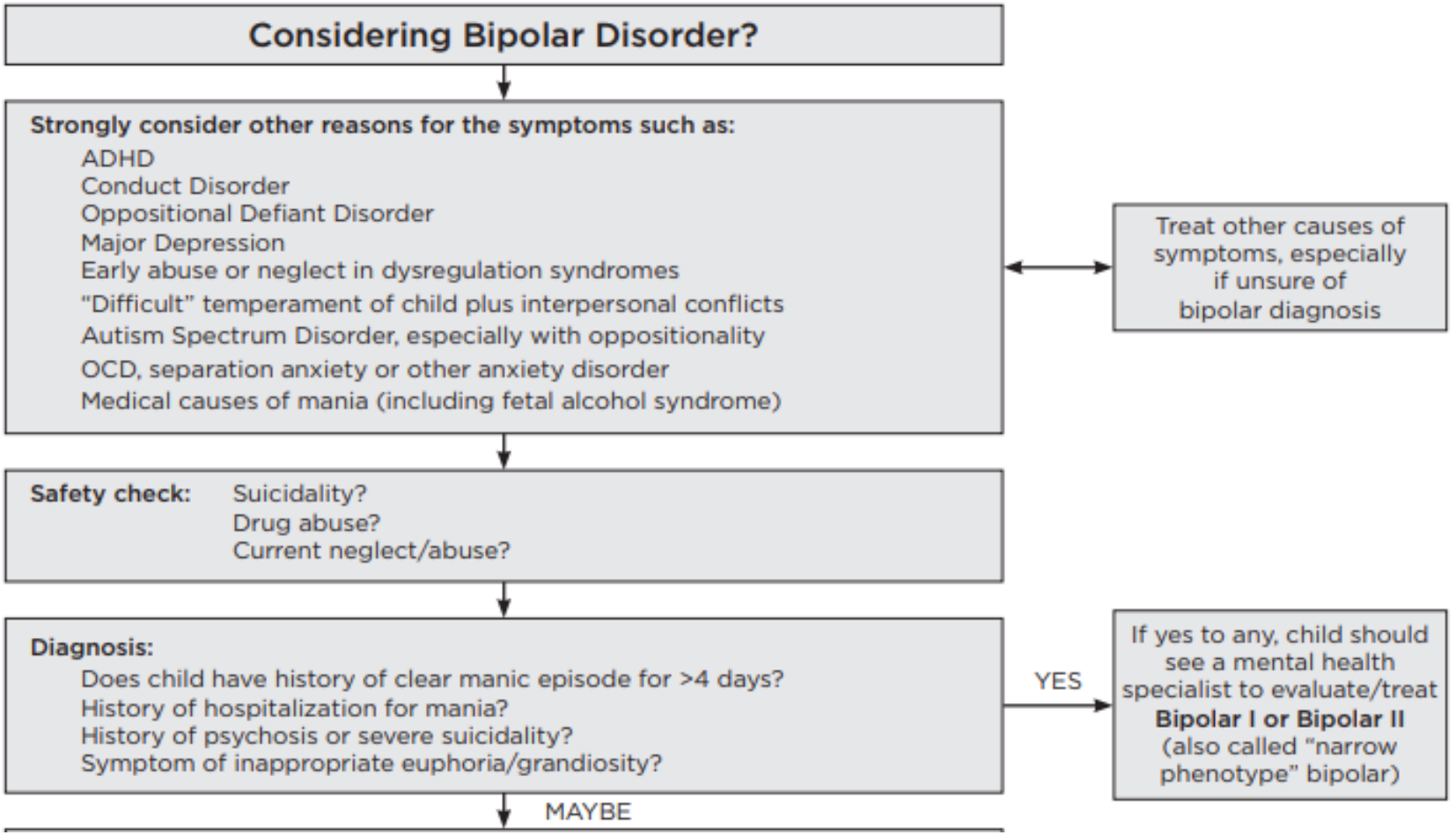
Bipolar Depression Care Pathway



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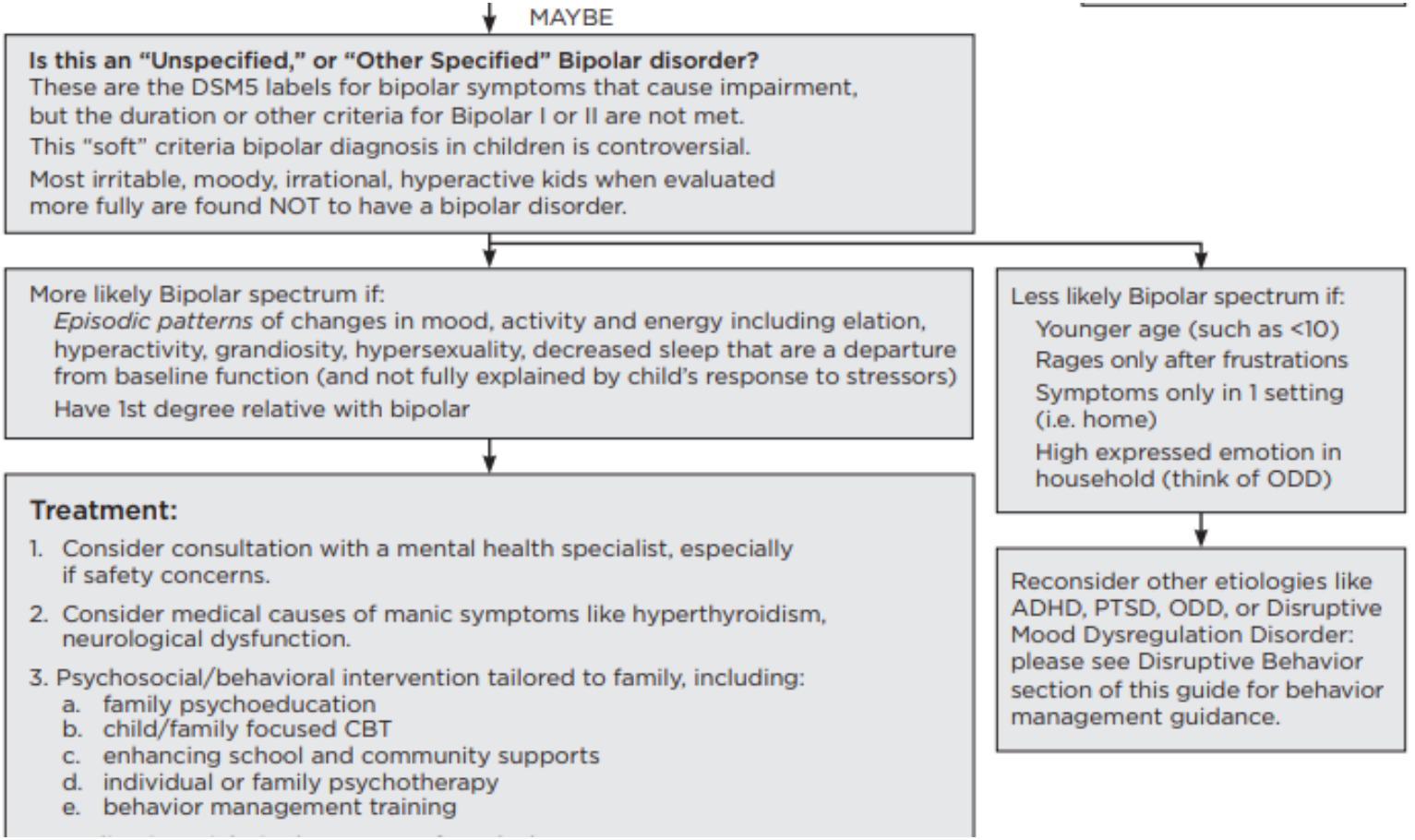
Bipolar Depression Care Pathway



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Bipolar Depression Care Pathway

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 hygeine — consider sleep medications if necessary.

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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)	Generic forms. Long 1/2 life, can take weeks to build effect, more weight gain than for adults
Quetiapine (Seroquel)	25, 50, 100, 200, 300, 400mg	25mg BID	++	+	+/-	Yes	Yes (Age ≥ 10)	Generic forms. Pills larger, could be hard for kids to swallow.
Ziprasidone (Geodon)	20, 40, 60, 80mg	20mg BID	+	+	+/-	Yes	No	Generic forms. 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)	Generic forms. Greatest risk of weight gain, increased cholesterol
Asenapine (Saphris)	Sublingual 2.5, 5, 10mg	2.5 mg SL BID	++	+/-	+/-	Yes	Yes (Age ≥ 10)	Oral paresthesias, must dissolve in mouth
Lurasidone (Latuda)	20, 40, 60 80, 120mg	20 mg QD	+	+	+/-	Yes	Yes (Age ≥ 10)	Take with food

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.

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Other Medication Options

Drug Name	Bipolar (+) RCT evidence in kids	FDA bipolar approved children?	Monitoring	Editorial Comments
Lithium	Yes	Yes (Age ≥ 7)	Baseline EKG, BUN/creat, TSH, CBC. Lithium level after 5 days. Q3month Lithium level. Q6mo TSH,BUN/creatinine	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 ovarian syndrome
Carbamazepine	No	No	CBC, LFT at baseline, then every 3-6 months. CBZ level checks needed	Aplasia and rash risk. Oxcarbazepine bipolar trial with kids had negative results
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

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Pediatric Symptom Checklist-17 (PSC-17)

Caregiver Completing this Form: _____ Date: _____

Name of Child: _____

		Please mark under the heading that best fits your child			For Office Use		
		NEVER	SOME-TIMES	OFTEN	I	A	E
1.	Fidgety, unable to sit still						
2.	Feels sad, unhappy						
3.	Daydreams too much						
4.	Refuses to share						
5.	Does not understand other people's feelings						
6.	Feels hopeless						
7.	Has trouble concentrating						
8.	Fights with other children						
9.	Is down on him or herself						
10.	Blames others for his or her troubles						
11.	Seems to be having less fun						
12.	Does not listen to rules						
13.	Acts as if driven by a motor						
14.	Teases others						
15.	Worries a lot						
16.	Takes things that do not belong to him or her						
17.	Distracted easily						
	(scoring totals)						

Scoring:

- Fill in unshaded box on right with: "Never" = 0, "Sometimes" = 1, "Often" = 2
- Sum the columns.
  PSC17 Internalizing score is sum of column I
  PSC17 Attention score is sum of column A
  PSC17 Externalizing score is sum of column E
  PSC-17 Total Score is sum of I, A, and E columns

Suggested Screen Cutoff:

PSC-17 - I ≥ 5
PSC-17 - A ≥ 7
PSC-17 - E ≥7
Total Score ≥ 15

Higher Scores can indicate an increased likelihood of a behavioral health disorder being present.