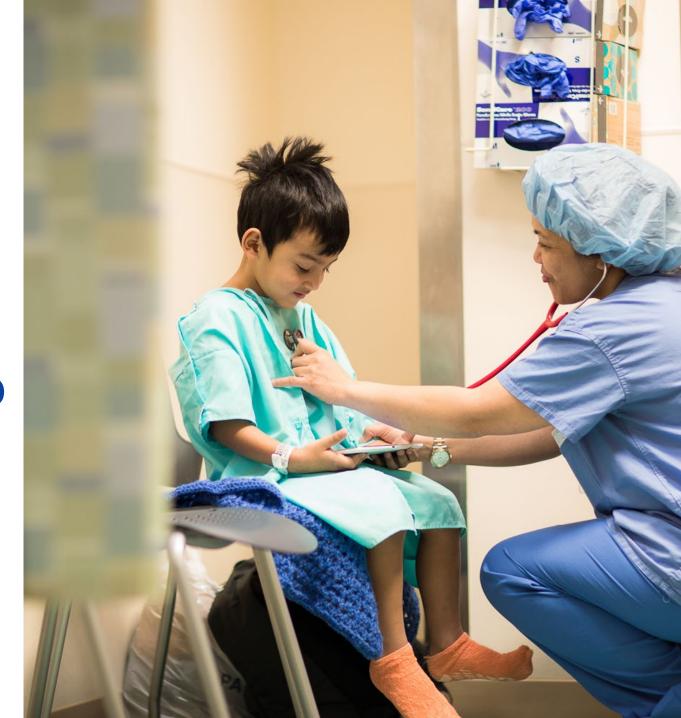
**Children's National-Pediatric Health Network** 

# Managing Pediatric Depression in the Outpatient Setting 2.0

Kelly Register-Brown, MD and Elana Neshkes, MD



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Webinars are open to all who wish to join, and recordings will be available following each session. CME credit will be available. Register online at <a href="https://pediatrichealthnetwork.org/behavioral-health-initiative/">https://pediatrichealthnetwork.org/behavioral-health-initiative/</a>

- . Wednesday, April 10, 2024, 12:00-1:00pm: ADHD 2.0
- Wednesday, September 11, 2024, 12:00-1:00pm: Anxiety 2.0
- . Wednesday, November 13, 2024, 12:00-1:00pm: Disordered Eating Behaviors 2.0



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## **Today's Speakers**



Kelly Register-Brown, MD, MSc Psychiatrist



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Psychiatrist
Pediatrician

**Disclosures: None** 

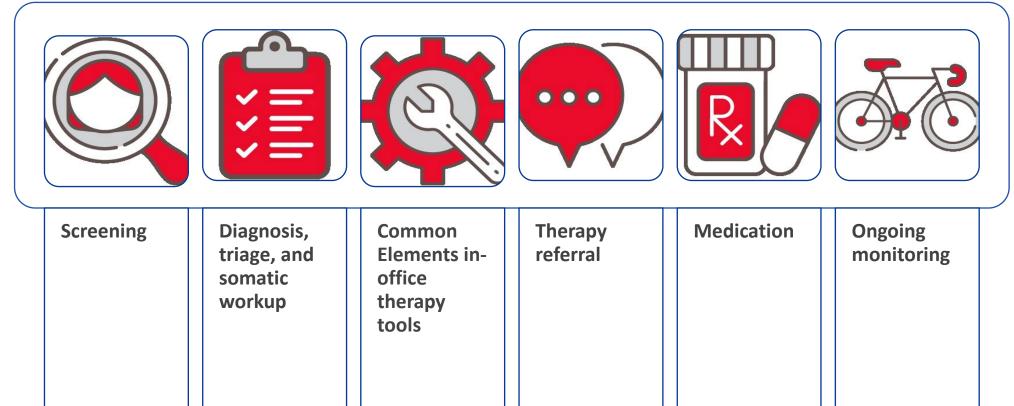
# Key Resources

#### Key Resources

- PHN Behavioral Health Initiative website for PCP resources on behavioral health, previous webinars, future webinar registration, and office hours registration: <a href="https://pediatrichealthnetwork.org/behavioral-health-initiative/">https://pediatrichealthnetwork.org/behavioral-health-initiative/</a>
- AAP's Addressing Mental Health Concerns in Pediatrics: A Practical Resource Toolkit for Clinicians, 2nd edition: <a href="https://publications.aap.org/toolkits/pages/Mental-Health-Toolkit">https://publications.aap.org/toolkits/pages/Mental-Health-Toolkit</a>
- AAP's Mental Health Competencies for Pediatric Practice: <a href="https://publications.aap.org/pediatrics/article/144/5/e20192757/38256/Mental-Health-Competencies-for-Pediatric-Practice">https://publications.aap.org/pediatrics/article/144/5/e20192757/38256/Mental-Health-Competencies-for-Pediatric-Practice</a>
- AAP's Guidelines for Adolescent Depression in Primary Care (GLAD-PC): Part I. Practice Preparation, Identification, Assessment, and Initial Management: <a href="https://publications.aap.org/pediatrics/article/141/3/e20174081/37626/Guidelines-for-Adolescent-Depression-in-Primary">https://publications.aap.org/pediatrics/article/141/3/e20174081/37626/Guidelines-for-Adolescent-Depression-in-Primary</a>
- Virginia Mental Health Access Program Guide for Promoting Child and Adolescent Behavioral and Mental Health in Primary Care (VMAP Guidebook): <a href="https://vmap.org/guidebook/">https://vmap.org/guidebook/</a>
- AAP's Mental Health Strategies for Pediatric Care: <a href="https://publications.aap.org/aapbooks/book/702/Mental-Health-Strategies-for-Pediatric-Care">https://publications.aap.org/aapbooks/book/702/Mental-Health-Strategies-for-Pediatric-Care</a>



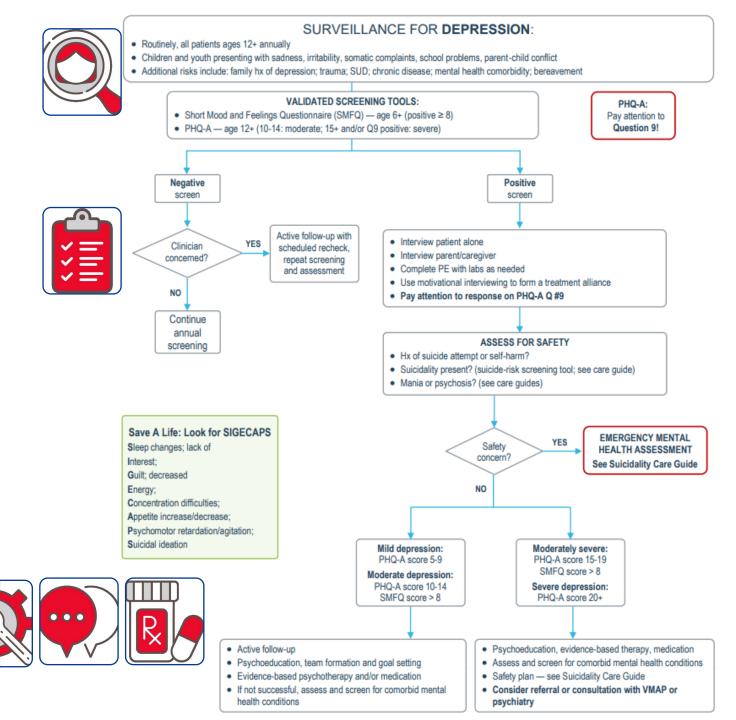
# Steps in Management



Decisions are guided by an algorithm.

# VMAP Depression Algorithm

https://vmap.org/quidebook/



#### Pediatric Health Network

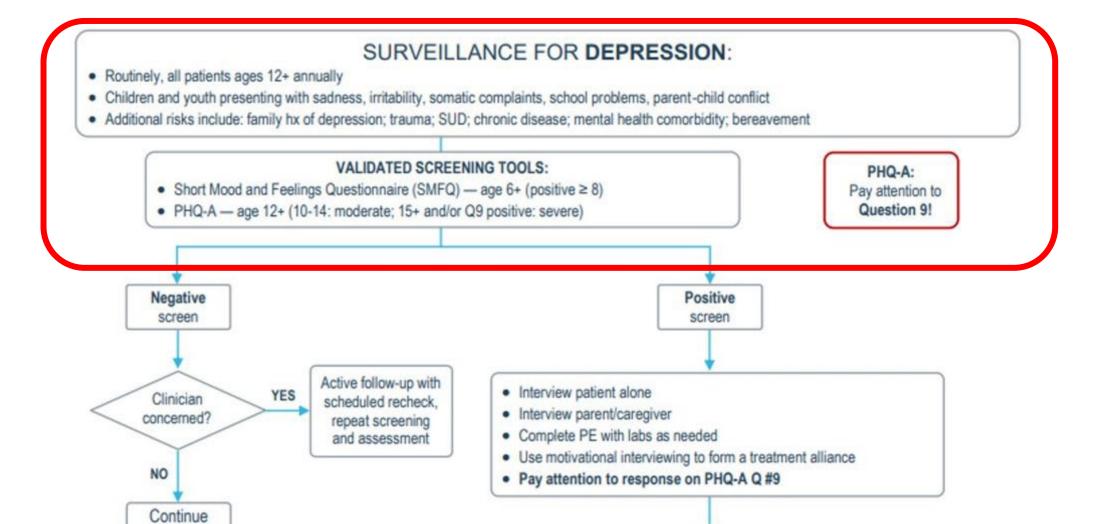
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# Screening









#### PHQ-9 Modified for Teens (PHQ-A)

		5. Poor appetite, weight loss, or overeating?	0	1	2	3
		Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?	0	1	2	3
		7. Trouble concentrating on things like school work, reading, or watching TV?	0	1	2	3
		Moving or speaking so slowly that other people could have noticed?  Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?	0	1	2	3
		Thoughts that you would be better off dead, or of hurting yourself in some way?	0	1	2	3
		If you are experiencing any of the problems on this form, h you to do your work, take care of things at home or get alo				nade it for
		[ ] Not difficult at all [ ] Somewhat difficult [ ] Very	difficult	[ ] Extrem	ely difficult	
		In the <u>past year</u> have you felt depressed or sad most days, even if you felt okay sometimes?  [ ] Yes [ ] No				
		Has there been a time in the <u>past month</u> when you have h [ ] Yes [ ] No	ad serious t	thoughts al	oout ending	your life?
		Have you <b>EVER</b> , in your WHOLE LIFE, tried to kill yourself o	r made a su	uicide atten	npt?	
		lf you have had thoughts that you would be better off dead or of hurt Health Care Clinician, go to a hospital emergency room or call 911	ing yourself i	in some way,	please discuss	this with your
		OFFICE USE ONLY:				
		SCORE: Screener Name:		Date:		
ediatric Health Network Children's National.	A	Modified with permission by the GLAD-PC team from the PHQ-9 (a. (Johnson, 2002), and the CDS (DISC Development Group, 2000).  2018 The REACH Institute. Guidelines for Adole				1111

PHQ-9: Modified for Teens (ages 11-17)

Instructions: How often have you been bothered by each of the following symptoms during the past <u>two</u> <u>weeks?</u> For each symptom put an "X" in the box beneath the answer that best describes how you have

Not At

0

AII

Several

1

1

Days

More Than

2

2

Half the

Days

Nearly

**Every Day** 

3

3

been feeling.

much?

Little interest or pleasure in doing things?
 Feeling down, depressed, irritable, or hopeless?

4. Feeling tired, or having little energy?

3. Trouble falling asleep, staying asleep, or sleeping too

#### PHQ-9 Modified for Teens (PHQ-A)

9. Thoughts that you would be better off dead, or of hurting yourself in some way?

Name: Dat	0.0					
Instructions: How often have you been bothered by each of the following symptoms during the past <u>two</u> <u>weeks?</u> For each symptom put an "X" in the box beneath the answer that best describes how you have been feeling.						
	(0) Not At All	(1) Several Days	(2) More Than Half the Days	(3) Nearly Every Day		
Little interest or pleasure in doing things?	0	1	2	3		
2. Feeling down, depressed, irritable, or hopeless?	0	1	2	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, weight loss, or overeating?	0	1	2	3		
Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?	0	1	2	3		
7. Trouble concentrating on things like school work, reading, or watching TV?	0	1	2	3		
Moving or speaking so slowly that other people could have noticed?     Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?	0	1	2	3		
9. Thoughts that you would be better off dead, or of hurting yourself in some way?						
If you are experiencing any of the problems on this form, how difficult have these 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						
In the <u>past year</u> have you felt depressed or sad most days, [ ] Yes [ ] No	even if you	felt okay s	ometimes?			
Has there been a time in the <u>past month</u> when you have had serious thoughts about ending your life?  [ ] Yes [ ] No						
Have you <b>EVER</b> , in your WHOLE LIFE, tried to kill yourself or made a suicide attempt?  [ ] Yes [ ] No						
If you have had thoughts that you would be better off dead or of hurt Health Care Clinician, go to a hospital emergency room or call 911	ing yourself i	in some way,	, please discuss	this with you		
OFFICE USE ONLY:  SCORE: Screener Name:		Date:				

Modified with permission by the GLAD-PC team from the PHQ-9 (Spitzer, Williams, & Kroenke, 1999), Revised PHQ-

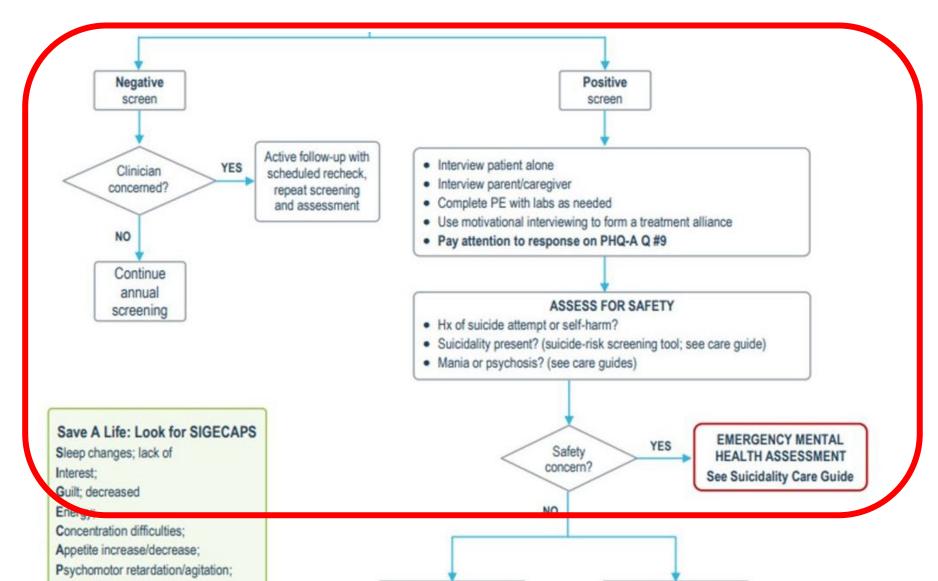
PHQ-9: Modified for Teens (ages 11-17)

Pediatric Health Network

## Diagnosis, Triage, and Somatic Workup



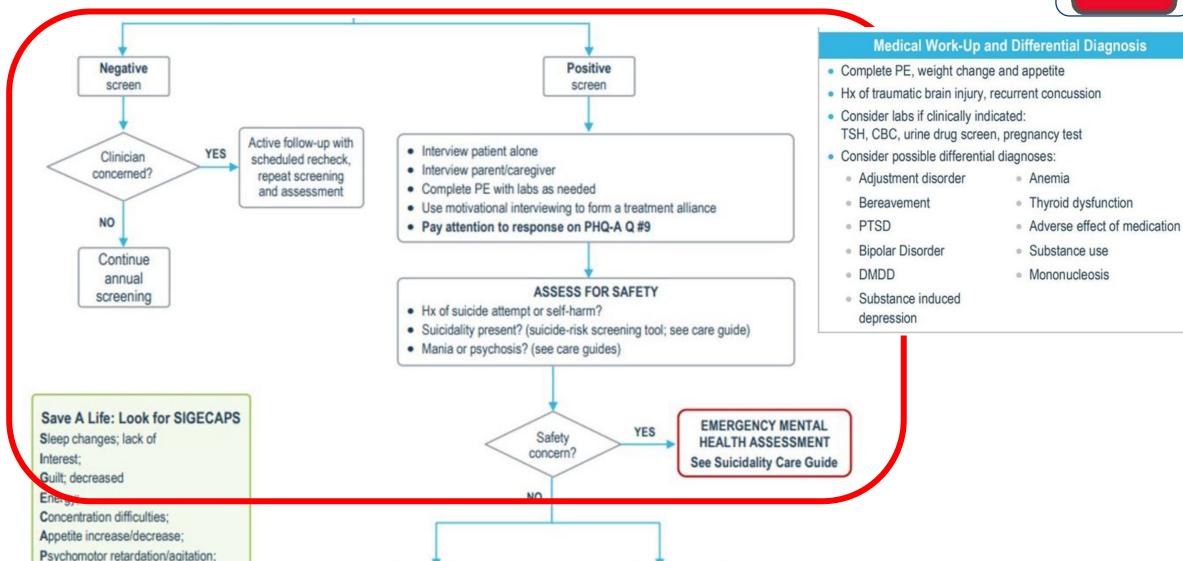
## **VMAP Depression Algorithm**







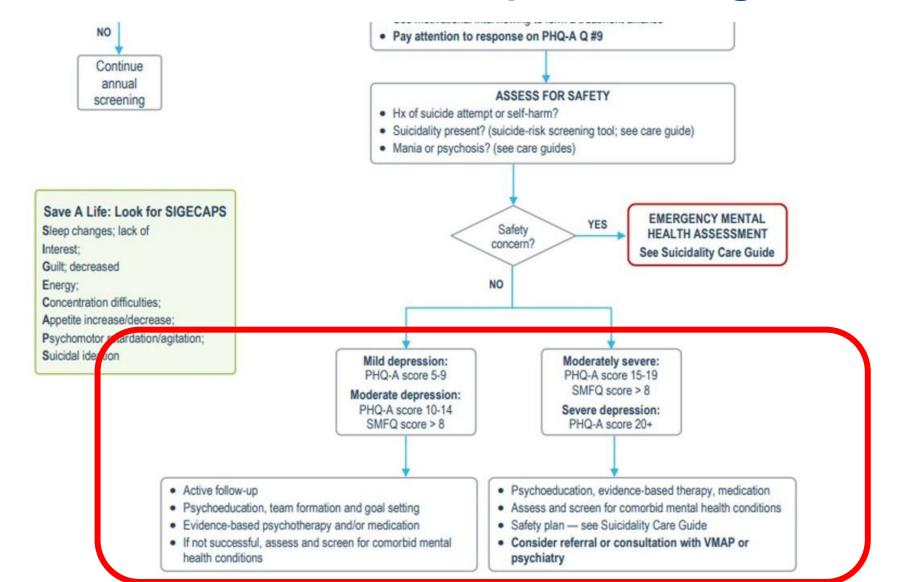




# Common Elements In-Office Therapy Tools



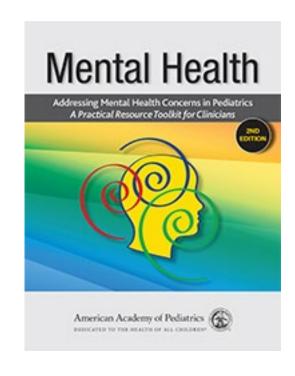
### **VMAP Depression Algorithm**





#### **AAP on Common Elements Approaches**

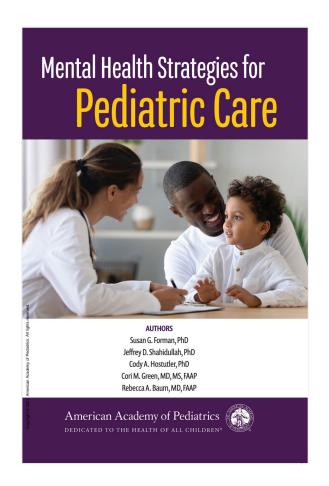




"Common-elements" approaches can be used as brief interventions. They... are <u>semi-specific components</u> of psychosocial therapies that apply to a group of related conditions.

#### **AAP on Common Elements Approaches**



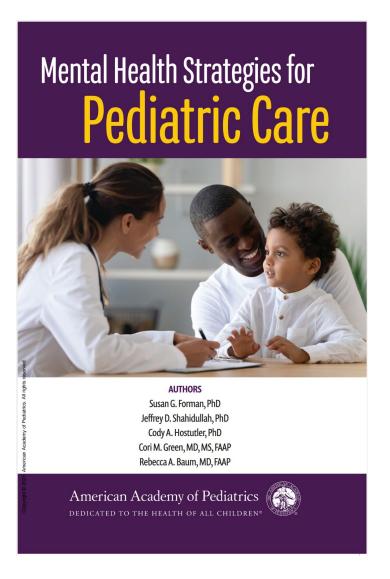


The common elements approach recognizes that most evidence-based interventions contain the same components, or elements. Therefore, rather than learning how to deliver hundreds of manualized treatments, clinicians can address patient mental health issues by learning the elements distilled from these interventions and how to combine them for different symptoms and disorders.



### **Common Elements Tools for Depression**

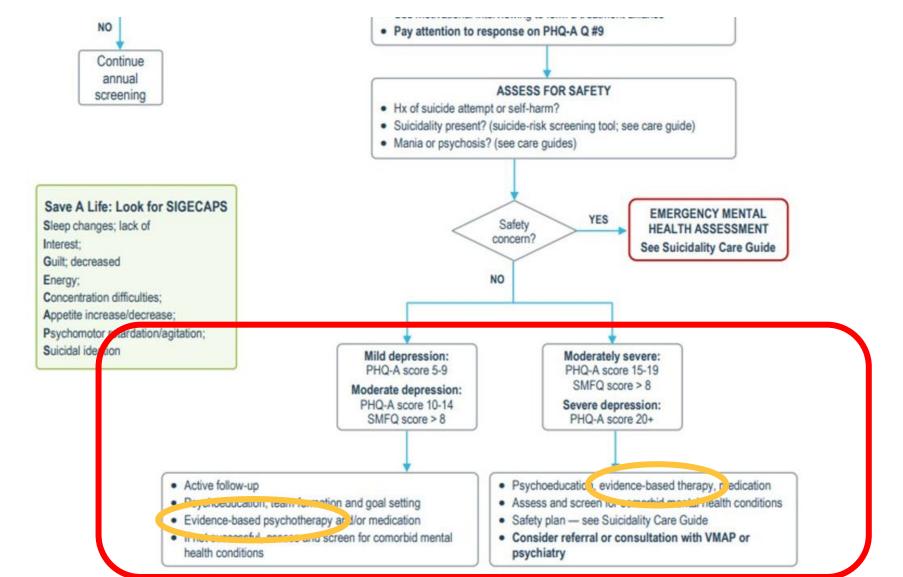
- Cognitive restructuring
- Self-monitoring
- Pleasant activity scheduling
- Problem solving training
- Maintenance/relapse prevention training
- Psychoeducation



# Therapy Referral



## **VMAP Depression Algorithm**









- **CBT (Cognitive Behavioral Therapy):** "Thoughts influence behaviors and feelings, and vice versa. Treatment targets patient's thoughts and behaviors to improve his/her mood. Essential elements of CBT include increasing pleasurable activities (behavioral activation), reducing negative thoughts (cognitive restructuring), and improving assertiveness and problem-solving skills to reduce feelings of hopelessness."
- IPT-A (Interpersonal Therapy for Adolescents): "Interpersonal problems may cause or exacerbate depression and that depression, in turn, may exacerbate interpersonal problems. Treatment targets patient's interpersonal problems to improve both interpersonal functioning and his/her mood. Essential elements of interpersonal therapy include identifying an interpersonal problem area, improving interpersonal problem-solving skills, and modifying communication patterns."

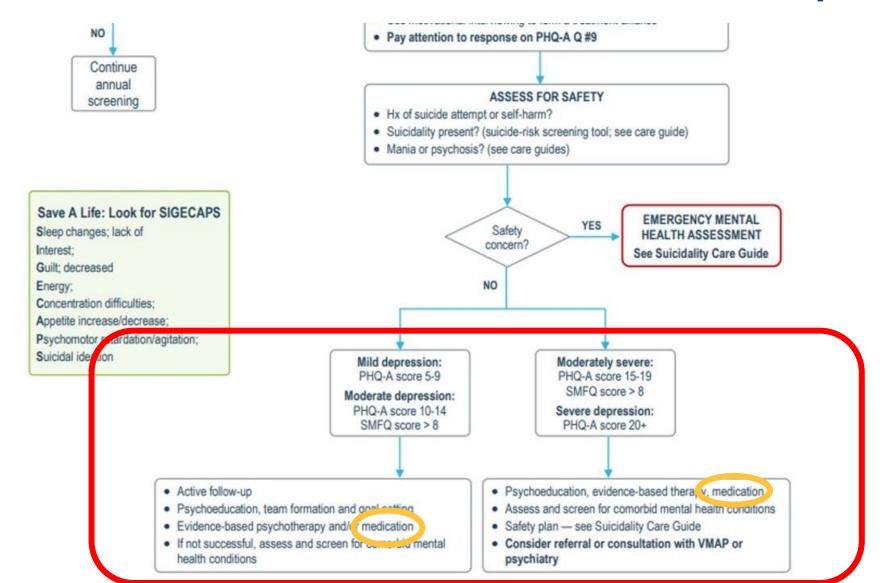
GLAD-PCToolkit, page 88, GLADPC.ORG

# Medication



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### **VMAP Clinical Pathway**









VMAP Guide v1.0 www.vmap.org

#### MEDICATION GUIDANCE: COMMONLY PRESCRIBED ANTI-DEPRESSANTS (not an exhaustive list)

Class	Generic	Brand Name	Available Forms/Doses	Dosing Information	Other Information	Comments				
SSRI	fluoxetine	Prozac	• 20mg/5ml	*Initial dose: 5-10mg	When switching meds tapering is not	Common first line, FDA approved for				
			• Tabs 10/20/40/60mg		half-life of active metabolite (avg 9.3 days)					MDD age 8+, OCD age 7+, PMDD
				Typical effective dose: 20mg						
				<b>Duration:</b> 24 hours	Common side effects and risk of serotonin syndrome ++					
SSRI	escitalopram	Lexapro	• 5mg/5ml	*Initial dose: 5mg	long QT syndrome MDD age 12+, GAD	Common first line, FDA approved for				
			• Tabs 5/10/20mg	Max dose: 20mg		long Q1 syndrome Common side effects and risk of	MDD age 12+, GAD			
				Typical effective dose: 10mg	serotonin syndrome ++					
				<b>Duration:</b> 24 hours						
SSRI	sertraline	Zoloft	• 20mg/ml	Initial dose: 12.5mg	Drowsiness and sleep disturbance	Evidence based for MDD, OCD				
			<ul> <li>Tabs 25/50/100mg</li> </ul>	Max dose: 200mg	more common in adults than children  Common side effects and risk of	age 6+, PMDD, PTSD.				
				Typical effective dose: 100mg	serotonin syndrome ++					
				<b>Duration:</b> 24 hours						

#### **Counseling Families About SSRIs**

- Serious risks (suicidal ideation, treatment emergent mania, activation, easy bruising, cardiac events, serotonin syndrome)
- Common side effects (GI issues, headaches...)
- Need to take the medication (nearly) every day for it to work (not PRN)
- Start at a low dose and titrate to reduce side effects.
- Takes 4-6 weeks to reach full effect once at target dose
- Likely duration of treatment (6-12 months after remission), then supervised taper to avoid discontinuation symptoms
- Call office before follow-up appointment with questions/concerns about medication
- Call crisis line/911 for any safety concerns





#### SIDE EFFECT INFORMATION FOR FAMILIES: SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIs)

SERTRALINE (Zoloft), FLUOXETINE (Prozac), CITALOPRAM (Celexa), ESCITALOPRAM (Lexapro), FLUVOXAMINE (Luvox), PAROXETINE (Paxil)

AME of medication:	
OSE of medication:	

#### USED for the treatment of the following conditions

- Depression or mood disorder
- od disorder Eating disorders
- Anxiety disorder

- Disruptive mood dysregulation disorder
- · Obsessive-compulsive disorder

#### SIDE EFFECTS of these medications include but are not limited to

- Nausea, vomiting, constipation, diarrhea, weight gain
- Dry mouth, blurry vision (anticholinergic symptoms)
- Drowsiness/sedation or insomnia
- Mood changes, anxietySkin problems (rash, itching)

Activation (especially Prozac)
 Dizziness, tremor, headache

Racing heart

#### RARE but SERIOUS side effects include but are not limited to

- Serotonin syndrome (fever, agitation, sweating, tremor, seizures)
- Worsening depression, elevated mood/hypomania
- Increased risk of bruising
- Adverse heart (cardiovascular) events (especially Celexa)

Please tell your provider if there is a personal or family history of heart disease, including abnormal heart rhythms (prolonged QTc syndrome), in which case screening is indicated prior to starting this medication.

· Suicidal ideation (very unlikely and studies did not report any attempts)

#### Administration

- For children with autism spectrum disorder, these medications are often effective at lower doses. Therefore, the
  dose is started lower and then titrated upward as needed.
- These medications do not need to be taken with food. However, if there is any stomach upset, it may help to take
  the medication with food.
- This medication must be taken regularly. Abrupt discontinuation may lead to withdrawal symptoms (nausea, fatigue, chills, muscle aches, agitation). Please tell your provider if you want to stop the medication and we can help to taper it down.

#### Other Information

- Generally, there is no need to pre-screen patients to start this medication unless there is a family or personal
  history of cardiac disease or the patient is taking other medications which may prolong the QTc interval. Please tell
  your provider if there is a family history of heart problems.
- While there may be some effect from the medication during the first week, it will take between 2 to 8 weeks for the
  medication to have its full the reposition of the state.
- Side effects will be monitored at upcoming visits. Please contact us sooner if you have any questions or concerns about potential side effects.

#### HealthyChildren.org Language on the Black Box Warning



#### About the FDA black box warning

You may have heard that selective SSRIs have a boxed warning (commonly referred to as "black box warning") from the U.S. Food and Drug (FDA) Administration. The boxed warning calls attention to serious or life-threatening risks.

The FDA tests and approves medicines before they can be sold. The details of the black box warning are important to understand because some parents and adolescents feel hesitant about medicine that seems harmful.

In 2004, the FDA added a black box warning for antidepressants for children and adolescents. The FDA reviewed 24 research studies with more than 4,400 children and adolescents who had been prescribed any of 9 antidepressants. No child died by suicide in any of these trials. FDA officials found that about 2 out of 100 children not taking antidepressants would report suicidal thoughts or behaviors, compared to 4 out of 100 who were taking antidepressants.

Many research studies show that antidepressants are safe and effective at treating children with depression. The black box warning is intended to encourage parents and doctors to ask about suicidal thoughts.



## **Choosing an SSRI**

R	

	Fluoxetine	Sertraline	Escitalopram
FDA indicated for MDD age 8-11	X		
FDA indicated for MDD age 12+	X		X
FDA indicated for GAD age 7+			X
FDA indicated for OCD age 6		X	
FDA indicated for OCD age 7+	X	X	
Longer half-life (e.g. useful for teen with adherence issues)	X		
Cytochrome p450 interactions more likely	x (potent inhibitor of CYP2D6)	X (inhibits CYP2D6)	
Relatively more activating	X		
Lower concern for QTc prolongation	X	X	

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- High risk of SSRI side effects: Younger patients, patients with neurodevelopmental
  disabilities, or family history of bipolar disorder: consider lower dose and slower titration;
  consider using a shorter half-life medication (not fluoxetine); consider MAP consult
- Concern for bipolar depression in your patient (e.g. episodic grandiosity, hypersexuality, impulsivity, sleep disruption): consult/refer to Psychiatry
- **Medically ill child** with need for other serotonergic medications or risk of cytochrome p<sub>450</sub> interactions: coordinate with specialists, check interactions, consider escitalopram or sertraline due to decreased p<sub>450</sub> interactions

# Ongoing Monitoring and Recovery







**Initial Treatment Phase** (week 1 to remission; goal is remission within 8 weeks; monitor q 1-2 weeks)

Week 1: start at low test dose, contact family to check in after 1 week

Weeks 2-4: Titrate if continuing symptoms and no adverse effects

**Week 4:** Appointment using PHQ-Modified for Teens (PHQ-A) to assess efficacy. Drop in PHQ-A scores: ≥5 points=adequate; 0-1 points=inadequate.







**Initial Treatment Phase** (week 1 to remission; goal is remission within 8 weeks; monitor q 1-2 weeks)

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**Week 4:** Appointment using PHQ-Modified for Teens (PHQ-A) to assess efficacy. Drop in PHQ-A scores: ≥5 points=adequate; 0-1 points=inadequate.

#### Strategies for partial/inadequate/no response but no safety concerns:

- Titration to max dose
- Adding/intensifying therapy
- Cross titration to a second SSRI
- Consultation with Psychiatry/MAP program
- Reconsider diagnosis







Initial Treatment Phase (week 1 to remission; goal is remission within 8 weeks; monitor q 1-2 weeks)

Week 1: start at low test dose, contact family to check in after 1 week

Weeks 2-4: Titrate if continuing symptoms and no adverse effects

Week 4: Appointment using PHQ-Modified for Teens (PHQ-A) to assess efficacy. Drop in PHQ-A scores: ≥5 points=adequate; 0-1 points=inadequate.

**Continuation Phase** (months 2-6 after remission; monitor q1-3 months)

Monitor with PHQ-A

Goals of therapy:

- consolidate skills
- cope with the psychosocial sequelae of the depression
- address potential contributors to relapse (antecedents, contextual factors, environmental stressors, and internal as well as external conflicts)





### Monitoring Response to SSRI Treatment



**Initial Treatment Phase** (week 1 to remission; goal is remission within 8 weeks; monitor q 1-2 weeks)

Week 1: start at low test dose, contact family to check in after 1 week

Weeks 2-4: Titrate if continuing symptoms and no adverse effects

Week 4: Appointment using PHQ-Modified for Teens (PHQ-A) to assess efficacy. Drop in PHQ-A scores: ≥5 points=adequate; 0-1 points=inadequate.

**Continuation Phase** (months 2-6 after remission; monitor monthly

Monitor with PHQ-A

Goals of therapy:

- consolidate skills
- cope with the psychosocial sequelae of the depression
- address potential contributors to relapse (antecedents, contextual factors, environmental stressors, and internal as well as external conflicts)

**Remission Phase** (months 6-12 after remission; monitor no less often than q3months)

Continue SSRI for 12 months to reduce risk of relapse.

Recheck PHQ-A at 12 months. If score is below cutoff, consider slow taper.

If tapering SSRI, monitor for reemergence of depression and any comorbid anxiety.

Monitor for 6-24 months after stopping SSRI.





### Managing SSRI Side Effects



#### Common, generally selflimited

- Insomnia or sedation (adjust med admin schedule)
- GI side effects
- Change in appetite
- Headache

# Less common, may require medication change

- Activation
- Dizziness
- Tremor
- Hyperhydrosis
- Sexual dysfunction

## Rare, potential emergency

- New suicidality
- Serotonin syndrome
- Easy bleeding
- Hyponatremia
- Mania
- Prolonged QT interval

GLAD-PC Toolkit, page 92. VMAP Guidebook, page 68.

Strawn JR, Mills JA, Poweleit EA, Ramsey LB, Croarkin PE. Adverse Effects of Antidepressant Medications and their Management in Children and Adolescents. Pharmacotherapy. 2023 Jul;43(7):675-690.







- Activation: mild anxiety/jitteriness, increased energy, insomnia, or irritability up through more severe presentations of agitation and hyperactivity
- **Risk factors for activation**: younger age, higher blood SSRI level, rapid titration, ?family history of bipolar disorder, comorbidity (autism, ?ADHD)
- The **risk of induction of mania** in pediatric patients with depression or anxiety is relatively rare (<2%) and not statistically different from placebo in RCTs of pediatric participants.
- **Red flags for mania** (versus activation) include hypersexuality, grandiose ideas, psychosis, and latency after dose change before emergence of concerning symptoms.

Dwyer JB, Bloch MH. Antidepressants for Pediatric Patients. Curr Psychiatr. 2019 Sep;18(9):26-42F.









START		
Week 2		
Week 3		
Week 4		
Ongoing		

#### **SSRI Approximate Dose Equivalence:**

Fluoxetine 10mg Sertraline 25-37.5mg Escitalopram 5mg

#### **SSRI Approximate Half Lives:**

Fluoxetine 4-6 days Sertraline 30-36 hours Escitalopram 26-32 hours



# Cross-Titrating SSRI's Example: Escitalopram 20mg to Sertraline for a healthy 16-year-old



	i	i	i	
START	Escitalopram 5mg	Escitalopram 5mg	Escitalopram 5mg	Escitalopram 5mg
Week 2	Escitalopram 5mg	Escitalopram 5mg	Escitalopram 5mg	Sertraline 25mg
Week 3	Escitalopram 5mg	Escitalopram 5mg	Sertraline 25 mg	Sertraline 25 mg
Week 4	Escitalopram 5mg	Sertraline 25 mg	Sertraline 25 mg	Sertraline 25 mg
Ongoing	Sertraline 25 mg	Sertraline 25 mg	Sertraline 25 mg	Sertraline 25 mg

Escitalopram 20mg

Escitalopram 15mg Sertraline 25mg

Escitalopram 10mg Sertraline 50mg

Escitalopram 5mg Sertraline 75mg

Sertraline 100mg (consider further sertraline titration in subsequent weeks if needed) Escitalopram 5mg is approximately equivalent to sertraline 25mg.



#### Thank You!

**Question & Answer** 

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