IU Medical Group Primary Care
Clinical Practice Guideline
Clinical Management of Depression For Adolescents 12-18 Years Old

Approved by:

Dawn Haut, MD
Chair, Pediatric Clinical Policy Advisory Committee

5/10/11 Date

Greg Kiray, MD
Chief Medical Officer
Metro Offices

4/15/11 Date

John Kunzer, MD
Chief Medical Officer
Community Health Centers

4/18/11 Date

This practice guideline is intended to provide the practitioner with a framework to assist in patient care decisions. It does not replace the physician’s judgment and may not be appropriate for all cases.
Clinical Management of Depression for Adolescents 12-18 years old

1. Ask Screening Questions
   1. During the past month, have you been bothered by increased irritability, feeling down, depressed or hopeless?
   2. During the past month, have you been bothered by little interest or pleasure in doing things?
   - Screen for Associated High Risk Indicators
     3. Parental/Family/Personal history of mood disorders and/or suicidal behaviors
     4. Significant psychosocial stressors (family crisis, physical/sexual abuse, neglect, trauma or chronic illness)
     5. Use of substances (alcohol, prescription medications, illicit substances)
     6. Academic or Behavioral concerns expressed by teen or parent.

2. Positive Screen and/or High risk indicator
   Yes
   - Administer PHQ-9
   - Positive screen for depression or suicidal ideation
   - Exit algorithm
     - Repeat Surveillance in 6-12 months
     - Perform PCPS-Y to screen for other diagnoses
   No
   - Exit algorithm
     - Repeat surveillance in 6-12 months

3. Exit algorithm
   - Repeat surveillance in 6-12 months

4. Positive Screen
   Exit algorithm
   - Check TSH & Free T4 for everyone and CBC for menstruating
     Obtain UPT prior to starting any medications in sexually active women

5. Assess severity of depression based on PHQ-9
   - Moderate or Severe
     - PHQ-9 Score 10-27
   - Mild
     - PHQ-9 Score 5-9

6. Educate patient and family regarding diagnosis and treatment course:
   - Evaluate SSRI therapy
     - Initiate SSRI therapy if not previously started
     - Monitor adverse events and suicidal ideation (Q 2 week appointments until stable)
     - Re-access depressive symptoms using PHQ-9
     - Titrar dose upward if indicated based on medication titration recommendations
   - Provide patient and family with contact information for PCP, crisis center, and suicide hotline
   - Evaluate safety plan
     - Ensure counting has been established and evaluate patient’s perception of hopelessness. Make referral if not in place.

7. Assess for Suicide Risk, Homicidal Risk, and Psychosis:
   - Positive Screen: only if ONE of the following is present
     - Recent recurrent thoughts of death or self harm
     - Developed plan for suicide
     - Presence of intent or uncertainty/doubt regarding intent
     - Auditory/visual hallucinations, paranoia
     - Thoughts of harm to others
     - Prior attempts, history of self-injurious behavior
   - Other Areas to Assess
     - Future orientation (immediate plans, future goals, activities looking forward)
     - Significant relationships (family, friends, faith, etc)
     - Recent exposure to family/friend who has attempted or completed suicide
     - Recent self-injurious or risk taking behaviors
     - Access to gun or weapon
     - Level of intent

8. Positive Screen
   Exit algorithm
   - Refer to psychotherapy if chronic or recurrent
   - Provide active support and monitor with visits Q4 weeks
   - Provide with PCP and crisis numbers
   - Evaluate safety plan
   - Consider initiating SSRI if chronic, recurrent, or debilitating

9. Positive Screen
   Exit algorithm
   - Re-assess patient in 4-6 weeks
     - Monitor progress with PHQ-9
     - Assess suicide risk
     - If on SSRI, assess presence of adverse events
     - Evaluate safety plan

10. Re-assess after 4-6 weeks using PHQ-9
     Yes
     - Improvement
     No
     - Improvement

11. Medication options:
    - Increase dosage of SSRI, while continuing to monitor for side effects/adverse events
    - Consider transitioning to another SSRI after 6 weeks at maximum dosage, if little or no symptomatic improvement
    - Assess risk of suicide and presence of psychiatric symptoms
    - Review safety plan and continue active monitoring
    - Consider involving Child Psychiatry if symptoms are not improved after two failed SSRI's given at maximum dosage for 6 weeks AND/OR if there is uncertainty of diagnosis

12. Exit algorithm and monitor every 1-2 months, then Q3, then Q6, then monthly with continued active support as appropriate
PHQ 2 Initial Screening\(^R_1,R_2\)

Over the past 2 weeks, how often have you been bothered by any of the following problems?

1. *I have had little interest or pleasure in doing things.*
   - Not at all = 0
   - Several days = 1
   - More than half of the days = 2
   - Nearly everyday = 3

2. *I've been feeling down, depressed, or hopeless.*
   - Not at all = 0
   - Several days = 1
   - More than half of the days = 2
   - Nearly everyday = 3

**Total score of ≥3 screens positive for initial depression screen.** *PHQ-2 Sensitivity (Score ≥ 3): 75.2%, PHQ-2 Specificity (Score ≥ 3): 73.7%, PHQ-2 PPV (Score ≥ 3): 11.8%, PHQ-2 NPV (Score ≥ 6): 98.5%*

High Risk Indicators\(^R_3,R_4\):

1. Patient or family history of
   a. Depression
   b. Bipolar
   c. Suicidal behavior
   d. Substance abuse
   e. Other psychiatric illness

2. Patient history of
   a. Significant psychosocial stressors/family crises (recent death, break up, family conflict, peer conflict, etc)
   b. Physical and/or sexual abuse
   c. Neglect or traumatic exposure
   d. Chronic illness
   e. Anxiety disorder, ADHD, learning disorder, academic difficulty or behavioral problems
   f. Lacking support systems
   g. Poor coping skills

Citation:

## MODIFIED PATIENT HEALTH QUESTIONNAIRE-9

**Name:**

**Clinician:**

**Date:**

### Instructions:
How often have you been bothered by each of the following symptoms during the past **two weeks**? For each symptom put an “X” in the box beneath the answer that best describes how you have been feeling.

<table>
<thead>
<tr>
<th>No A. At All (0)</th>
<th>Several Days (1)</th>
<th>More Than Half The Days (2)</th>
<th>Nearly Every Day (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feeling down, depressed, irritable, or hopeless?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Little interest or pleasure in doing things?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Trouble falling asleep, staying asleep, or sleeping too much?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Poor appetite, weight loss, or overeating?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Feeling tired, or having little energy?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Feeling bad about yourself — or feeling that you are a failure, or that you have let yourself or your family down?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Trouble concentrating on things like school work, reading, or watching TV?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or the opposite — being so fidgety or restless that you were moving around a lot more than usual?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself in some way?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**In the past year** have you felt depressed or sad most days, even if you felt okay sometimes?  
[ ] Yes ( ) No

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

Has there been a time in the past month when you have had serious thoughts about ending your life?  
[ ] Yes [ ] No

Have you **KILLED** in your whole life, tried to kill yourself or made a suicide attempt?  
[ ] Yes [ ] No

**Citation:**

Modified from the PHQ-9 (Modified from PRIME-MD PHQ-9 © Copyright 1999 Pfizer Inc. Opie et al. JAMA, 1999), Revised PHQ-9 (Gleason, 2002), and the Columbia DESR (DESR Development Group, 2008)
PHQ-9 Severity Assessment

* Add up the numbers endorsed for questions 1-9 and obtain a total score.

**Total Score Depression Severity**

- 0-4 No or Minimal depression
- 5-9 Mild depression
- 10-14 Moderate depression
- 15-19 Moderately severe depression
- 20-27 Severe depression

Note: PHQ-9 is a screening test. Each survey should be independently evaluated by screener for significance of responses as well as pertinence to the algorithm.

*PHQ-9 Sensitivity (Score ≥ 6): 100.0%, PHQ-9 Specificity (Score ≥ 6): 50.4%, PHQ-9 PPV (Score ≥ 6): 8.3%, PHQ-9 NPV (Score ≥ 6): 100.0%*

Citation:
Suicide Risk Factors

Predisposing risk factors:
- Psychiatric disorders
- Previous attempt
- Family hx. of mood disorder or suicidal behavior
- History of physical or sexual abuse
- Exposure to violence

Precipitating factors:
- Access to means
- Social stressor
- Lack of social support
- Substance use
- Feelings of helplessness, poor problem solving

Citation:
Emergency Contact Numbers

1. **Mental Health Association of Marion County Crisis and Suicide Hotline 24/7, 301 E. 38th St.**
   Indianapolis, IN 46205, 317-251-7575 Insurance N/A. No inpatient services

2. **Midtown Community & Mental Health Center Crisis Hotline 24/7, 1001 W. 10th St Indianapolis, In 46202, 317-630-7791, Insurance: Medicare, Medicaid, and most commercial Insurance policies. Insurance policies evaluated on individual basis. Inpatient services are provided up for 18 and over.**

3. **Adult and Child Center, Inc Crisis Services 24/7, 8320 Madison Ave, Indianapolis, IN 46227, 317-882-5122 or 887-882-5122, adult child.org. Insurance N/A. Inpatient services are not provided**

4. **Gallahue Mental Health Services Behavioral Care Services Crisis Line 24/7, 7150 Clearvista Drive, Indianapolis, In 46256, Crisis Line: 317-621-5700 or 800-662-3445, Outpatient Referral: 3:7-621-5719 or 866-621-5719. Almost all insurance policies are accepted. Exclusion only applies to hospital-specific policies**
Mania/Hypomania Red Flags (Based on DSM IV-TR Criteria)

1. Persistently elevated, expansive, or irritable mood, lasting at least 4 days, that is clearly different from the usual non-depressed mood associated with:
   - Inflated self-esteem or grandiosity
   - Decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
   - More talkative than usual or pressure to keep talking
   - Flight of ideas or subjective experience that thoughts are racing
   - Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
   - Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
   - Excessive involvement in high-risk pleasure activities (e.g., increased spending/shopping, hypersexuality, or foolish business investments)

2. The individual’s change in personality, disturbance in mood, and the change in functioning are observable by others.

3. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment) or a general medical condition (e.g., hyperthyroidism).

Note: Hypomanic-like or manic episodes due to antidepressant therapy does not support a diagnosis of Bipolar II Disorder.

Note: When evaluating for depression, consider alternative diagnosis that can mimic or intensify presentation as well as interfere with therapeutic management, including diagnosis listed below:

- **Mental Health Diagnosis:** Anxiety Disorder, PTSD, Depressive episode of bipolar disorder, Eating Disorder, ADHD, Conduct Disorder
- **Medical Diagnosis:** Anemia, Mononucleosis, Thyroid Disorder

Citation:
Active Monitoring/Support \textsuperscript{R3, R5}

1. Frequent visits, phone follow-ups

2. Evaluate patient Self-Management Goals (regular exercise, outlets/activities, nutritional recommendations, sleep recommendations)

3. Peer support group, community resources

4. Educational information for patient and families

5. Communication with outside involved parties (school, counselors, family, friends, etc). Obtain informed consent

Supportive Handouts

For the Physician: Glad-PCToolkit
- Depression Monitoring Flowsheet
- Topics to discuss with patients when initiating medications

For the Patient: (GLAD- PCToolkit)
- Antidepressant medications and you
- How can you help with sleep problems
- Self-care success: things you can do to help yourself
- Symptom monitoring sheet for depression
- Depression Medications and side effects monitoring sheet
- Mental health and drugs and alcohol
- Suicide: What should I know

For the Family: Glad-PCToolkit
- Depression and the family
- Family Support Action Plan
- A family guide: what families should know about adolescent depression and treatment options (National Alliance on Mental Health [NAMI])/

Supportive Websites
- American Academy of Psychiatry: Resource Center
  www.aacap.org
- American Academy of Pediatrics: Parenting Corner
  www.aap.org/parents.html
- National Institute of Mental Health Site on Depression in Children and Adolescents

Citation:
Safety Plan R3,R4

- Instruct family
  - Remove lethal means (i.e. firearms, alcohol, prescription medications, over-the-counter medications)
  - Involvement of concerned individual
    - Provide supervision
    - Monitor for risk factors of suicide
      - Self-destructive thoughts, trapped/hopeless thoughts
      - Creating morbid or death related art, poetry, writing
      - Using death concepts during play
      - Listening to death related music
      - Reading death related literature or accessing death related television shows, movies, computer websites
      - Giving away possessions
      - Recklessness
  - Creation of emergency plan for communicating patient emotional decline, develop active suicidal/homicidal ideation,

- Patient
  - Engage in treatment
    - Determine means for individual to calm themselves (create list of activities they soothing when they are set)
    - List of reasons for living
  - List of emergency contacts if patient becomes suicidal
    - Crisis numbers, Office numbers, 911
    - List of Friends/Family/Pastors etc that can be contacted during crisis
  - Schedule follow up
  - Develop and sign contract

- Consider and discuss need for safety plan at school and school involvement should patient undergo an acute crisis while at school

Citation:
### SSRI Reference Chart

<table>
<thead>
<tr>
<th>Drug Name</th>
<th>Initial Dose</th>
<th>Titration</th>
<th>Common Dose</th>
<th>Max Dose</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxetine (First Line)</td>
<td>10 mg Q day</td>
<td>Increase by 10 mg Q 1-2 weeks until effective</td>
<td>20 mg Q day</td>
<td>60 mg</td>
<td>FDA approved for depression in adolescents 8-17</td>
</tr>
<tr>
<td>Escitalopram (Second Line, but can be first line in ages 12-17)</td>
<td>5 mg Q day</td>
<td>After 3 weeks, increase by 5 mg Q 2 weeks</td>
<td>20 mg Q day</td>
<td>20 mg Q day</td>
<td>FDA approved for depression in adolescents 12-17 years old</td>
</tr>
<tr>
<td>Sertraline (Second Line)</td>
<td>25 mg Q day</td>
<td>Increase by 12.5-25 mg Q 1-2 weeks</td>
<td>100 mg Q day</td>
<td>200 mg Q day</td>
<td>Not FDA approved for depression in adolescents</td>
</tr>
<tr>
<td>Citalopram (second Line)</td>
<td>10 mg Q day</td>
<td>Increase by 10 mg Q 2 weeks</td>
<td>20 mg Q day</td>
<td>60 mg Q day</td>
<td>Not FDA approved for depression in adolescents</td>
</tr>
</tbody>
</table>

**When starting SSRI:**

- Before initiating SSRI:
  - Routine pediatric examination (height, weight, BP, HR) within 6 months prior to starting.
  - Baseline assessment of suicidal ideation, and level of intent

- Be aware that SSRIs may be activating in adolescents and increase behavioral agitation and disinhibition. In depressed adolescents, this may increase risk for suicidal thoughts/behaviors and requires careful physician attention. Few case reports of amotivational syndrome in adolescents on Sertraline.

  - **Common Side Effects**
    - GI: Nausea, vomiting, constipation, diarrhea, anorexia, dry mouth, dyspepsia, changes in appetite
    - CNS: Headache, anxiety, nervousness, agitation/jitteriness, insomnia, nocturnal myoclonus, tremor
    - Sexual: Anorgasmia, decreased libido, erectile difficulties, abnormal ejaculation, impotence
    - General: Increased sweating, weight loss, fatigue, irritability, Impulsivity/risk-taking behavior, insomnia
    - Hematologic: abnormal bleeding (Caution use with impaired platelets or patients on aspirin, NSAIDs or other concerns for coagulation)
    - Dermatologic – Rash
    - Discontinuation Syndrome: Dizziness, drowsiness, nausea, lethargy, headache

  - **Uncommon Side Effects:**
    - Increased suicidal behavior
    - Mania/hypomania
    - Serotonin syndrome: fever, hyperthermia, restlessness, confusion

**NOTE:** Paroxetine (Paxil) - FDA does not recommend using paroxetine for treatment of depression in adolescents. Clinical trials have shown improvement over placebo. Also Class D during pregnancy.

Fluoxamine (Luvox) is only used for the treatment of OCD, not for depression.
SSRI- Detailed Reference information

First Line:

Fluoxetine (Prozac)

a. **General Information:**
   i. Only SSRI that is US FDA for treatment of adolescent depression (ages 8-17)
   ii. Also labeled for OCD
   iii. Other Uses: Bulimia nervosa, Premenstrual Dysorphic Disorder, Panic Disorder with or without agoraphobia

b. **Initial Start Dose:** Start at 10 mg/day  
   **Max Dose:** 60 mg  
   **Common Effective Dose:** 20 mg

c. **Titration:** Increase by 10 mg every 1-2 weeks to reach effective dose

d. **Adverse Reactions/Warnings:** *Cautious use with renal or hepatic abnormalities as well as seizure disorders, cardiac dysfunction, DM

Second Line:

1. Escitalopram (Lexapro) (Can be used as first line for 12-17 y.o.)
   e. **General Information:**
      i. US FDA for treatment of adolescent depression (ages 12-17).
      ii. Other Uses: GAD. Has been studied in children with social anxiety disorders and pervasive developmental delay (including autism)

   f. **Initial Start Dose:** Start at 5 mg/day  
      **Max Dose:** 20 mg/day  
      **Common Effective Dose:** 20 mg/day

g. **Titration:** After 3 weeks of administration, may increase by 5 mg every 2 weeks

2. Sertraline (Zoloft)
   a. **General Information:**
      i. Not US FDA for treatment of adolescent depression
      ii. Other Uses: OCD, Panic-Disorder (with or without agoraphobia), PTSD, Premenstrual Dysphoric Disorder, and Social Anxiety Disorder

   b. **Initial Start Dose:** Start at 25 mg  
      **Max Dose:** 200 mg/day  
      **Common Effective Dose:** 100 mg

   c. **Titration:** Increase by 12.5-25 mg every 1-2 weeks

   d. **Adverse Reactions/Warnings:** *Use with caution in patients with seizure disorders. May cause hyponatremia, SIADH, significant weight loss

3. Citalopram (Celexa)
   a. **General Information:**
      i. Not US FDA for treatment of adolescent depression. One positive and one negative trial.
      ii. Other Uses: OCD

   b. **Initial Start Dose:** Start at 10 mg/day  
      **Max Dose:** 60 mg/day  
      **Common Effective Dose:** 20 mg

   i. **Titration:** Increase by 10 mg every 2 weeks (Slow Titration every 2 weeks decreases risk for suicidal behavior)

   c. **Adverse Reactions/Warnings:** *Use with caution in patients with seizure disorders

Citation:
# PHQ-9 modified for Adolescents (PHQ-A)

Name: ________________________ Clinician: ________________________ Date: __________

**Instructions:** How often have you been bothered by each of the following symptoms during the past **two weeks**? For each symptom put an “X” in the box beneath the answer that best describes how you have been feeling.

<table>
<thead>
<tr>
<th></th>
<th>(0) Not at all</th>
<th>(1) Several days</th>
<th>(2) More than half the days</th>
<th>(3) Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Feeling down, depressed, irritable, or hopeless?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Little interest or pleasure in doing things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Trouble falling asleep, staying asleep, or sleeping too much?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Poor appetite, weight loss, or overeating?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Feeling tired, or having little energy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Feeling bad about yourself – or feeling that you are a failure, or that you have let yourself or your family down?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Trouble concentrating on things like school work, reading, or watching TV?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Moving or speaking so slowly that other people could have noticed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Or the opposite – being so fidgety or restless that you were moving around a lot more than usual?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead, or of hurting yourself in some way?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the **past year** have you felt depressed or sad most days, even if you felt okay sometimes?
- □ Yes
- □ No

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

Has there been a time in the **past month** when you have had serious thoughts about ending your life?
- □ Yes
- □ No

Have you **EVER**, 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 hurting yourself in some way, please discuss this with your Health Care Clinician, go to a hospital emergency room or call 911.**

**Office use only:**

Severity score: __________

Modified with permission from the PHQ (Spitzer, Williams & Kroenke, 1999) by J. Johnson (Johnson, 2002)