Medical Management of Anxiety & Mood Disorders in Pediatric Primary Care

Update 2021

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  - Supernus
  - Takeda/Shire
  - Arbor

- Authorship (royalties)
  - Routledge Press / Francis Taylor Group
  - St. Martin’s Press
Objectives

After participating in this webinar, participants will be able to:

- Describe key elements of evidence-based treatments of anxiety and mood disorders in children and youth
- List FDA approved medications for the treatment of anxiety and mood disorders in children and youth
- Delineate ways to initiate and monitor medication treatment of anxiety and mood disorders in children and youth
- Apply cultural competency strategies when identifying and managing anxiety and mood disorders in pediatric patients of color
Role of Primary Care Practitioner

- Identify problems / concerns
- Carry out initial assessment
- Provide family psycho-education
  - Online resources
- Begin initial steps of treatment – “primary mental health care”
  - Family counseling
  - Medication management
- Consultation from mental health providers
- Referral of complex cases for ongoing treatment
Pediatric Symptom Checklist and Subscales

- Pediatric Symptoms Checklist (PSC-35, PSC-Y 37)
  - Available in multiple languages and a pictorial version
  - PSC-35 (completed by parent of children 6-11 y.o)
  - PSC-Y-37 (completed by youth 11 y.o. and up)
  - PSC-Y-37 has two questions to screen for suicidal ideation
- Additionally, screens for the following symptoms/behaviors:
  - Internalizing Problems (i.e. Depression or Anxiety)
  - Attention Problems (i.e. ADHD)
  - Externalizing Problems (i.e. Conduct Disorder, Oppositional Defiant Disorder)
- Cutoff scores
  - PSC-35 (6-16 yo) > 28; (4-5 yo) > 24.
Anxiety Fact Sheet

Prevalence
Anxiety disorders are the most common type of mental health disorder in childhood, affecting approximately 8% of all children and adolescents. There are many types of anxiety disorders that affect youth, the most common being Generalized Anxiety Disorder, Panic Disorder, Separation Anxiety Disorder, and Phobic Disorders.

Symptoms
Symptoms of anxiety disorders can include:

- Recurring fears and worries about routine parts of every day life
- Physical complaints, like stomachache or headache
- Trouble concentrating
- Trouble sleeping
- Fear of social situations
- Fear of leaving home
- Fear of separation from a loved one
- Refusing to go to school

Co-morbid disorders, in particular ADHD and depression, are not uncommon.

Diagnosis
A good diagnostic evaluation will include a complete history of symptoms to determine their severity and how long they have been present. Clinicians should assess for anxiety symptoms based on diagnostic criteria established in the DSM IV or ICD 10 and should use standardized anxiety tools to aid in the assessment.

Treatment
Anxiety disorders are treatable! Studies have shown that cognitive behavioral therapies (CBT) and medication treatments are both effective in treating anxiety disorders in youth. Parent involvement in treatment has also been shown to improve outcomes in some children. Early treatment can prevent future difficulties, such as academic or social difficulties and low self-esteem. Additional treatment options can be found here.

Remember....

- Review treatment options with the child and his/her family.
- Include the child and his/her family in the treatment plan.
Pragmatic Interventions in Primary Care: Family Counseling

- Family counseling may be required to limit family setting “induction” of anxiety, negativity, avoidance, acting out, rituals, aggression, etc.

- Focus Parent Counseling on *increasing* positive parenting behavior and coping skills, and on *reducing* over-reactivity, over-protectiveness, catastrophic thinking & hopelessness

- Emphasize positive coping for all family members
  - Cultural values / Respect for differences/ Strengths-based approach
  - Lessons from the pandemic – “we can get through this together”
Assessment & Treatment of Anxiety Disorders in Children and Youth
Anxiety Disorders

- Separation Anxiety
- Selective Mutism
- Specific Phobia
- Social Anxiety/Social Phobia
- Panic Disorder
- Agoraphobia

- Generalized Anxiety
- Substance/Medication Induced Anxiety
- Anxiety Due to Medical Condition
- Obsessive Compulsive Disorder
- Post-Traumatic Stress Disorder
Identifying Kids with Anxiety Disorders

**Symptoms to look for**
- Pattern of school refusal
- Other avoidance behaviors
- Frequent visit to office for vague somatic complaints
- Shyness with peers
- Trouble falling asleep or separating from parents

**Questions to ask**
- Is it distressing for child? Others?
- How is problem getting in the way?
- What are the triggers?
- How long has the problem been present?
- What have parents/child tried to do about the problem?
Assessing Anxiety Disorders

Initial assessment:

- Is the anxiety stimulus specific, spontaneous or anticipatory?
- Estimate the degree of avoidance in daily life
- Social & family context -> reinforcers of symptoms
- Temperament, quality of attachment, stranger/separation response, childhood fears
- Medical disorders & medications
- Family history of anxiety disorders
Screen for Child Anxiety Related Emotional Disorders (SCARED)

- www.pediatricbipolar.pitt.edu/resources/instruments
- Child version:
  www.pediatricbipolar.pitt.edu/sites/default/files/SCAREDC
- Parent version:
  www.pediatricbipolar.pitt.edu/sites/default/files/SCAREDParenVersion_1.19.18_0.pdf
# Screen for Child Anxiety Related Emotional Disorders (SCARED)

## Child Version—Pg. 1 of 2 (To be filled out by the CHILD)

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td></td>
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</tbody>
</table>

**Directions:**
Below is a list of sentences that describe how people feel. Read each phrase and decide if it is “Not True or Hardly Ever True” or “Somewhat True or Sometimes True” or “Very True or Often True” for you. Then for each sentence, fill in one circle that corresponds to the response that seems to describe you for the last 3 months.

<table>
<thead>
<tr>
<th>0 Not True or Hardly Ever True</th>
<th>1 Somewhat True or Sometimes True</th>
<th>2 Very True or Often True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I feel frightened, it is hard to breathe.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I get headaches when I am at school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I don’t like to be with people I don’t know well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I get scared if I sleep away from home.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I worry about other people liking me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. When I get frightened, I feel like passing out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I am nervous.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I follow my mother or father wherever they go.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. People tell me that I look nervous.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I feel nervous with people I don’t know well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I get stomachaches at school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. When I get frightened, I feel like I am going crazy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I worry about sleeping alone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I worry about being as good as other kids.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. When I get frightened, I feel like things are not real.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I have nightmares about something bad happening to my parents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I worry about going to school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. When I get frightened, my heart beats fast.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I get shaky.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I have nightmares about something bad happening to me.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Screen for Child Anxiety Related Disorders (SCARED)

Child Version—Pg. 2 of 2 (To be filled out by the CHILD)

<table>
<thead>
<tr>
<th>0 Not True or Hardly Ever True</th>
<th>1 Somewhat True or Sometimes True</th>
<th>2 Very True or Often True</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I worry about things working out for me.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. When I get frightened, I sweat a lot.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I am a worrier.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I get really frightened for no reason at all.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. I am afraid to be alone in the house.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. It is hard for me to talk with people I don’t know well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. When I get frightened, I feel like I am choking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. People tell me that I worry too much.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I don’t like to be away from my family.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. I am afraid of having anxiety (or panic) attacks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. I worry that something bad might happen to my parents.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. I feel shy with people I don’t know well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. I worry about what is going to happen in the future.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. When I get frightened, I feel like throwing up.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I worry about how well I do things.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. I am scared to go to school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. I worry about things that have already happened.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. When I get frightened, I feel dizzy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. I feel nervous when I am going to parties, dances, or any place where there will be people that I don’t know well.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. I am shy.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SCORING:
A total score of ≥ 28 may indicate the presence of an Anxiety Disorder. Scores higher that 30 are more specific.
A score of 7 for items 1, 6, 9, 12, 15, 18, 19, 22, 24, 27, 30, 34, 38 may indicate Panic Disorder or Significant Somatic Symptoms.
A score of 9 for items 5, 7, 14, 21, 23, 28, 33, 35, 37 may indicate Generalized Anxiety Disorder.
A score of 8 for items 4, 8, 13, 16, 20, 25, 29, 31 may indicate Separation Anxiety Disorder.
A score of 9 for items 3, 10, 26, 32, 39, 40, 41 may indicate Social Anxiety Disorder.
A score of 3 for items 2, 11, 17, 36 may indicate Significant School Avoidance.
Evidence from RCTs support the efficacy of:

Cognitive-behavioral therapy (CBT)

Pharmacological interventions (e.g., SSRIs)

Citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, **sertraline**, vilazodone

Combined CBT + SSRIs: might have some advantages over both monotherapies, but optimal sequencing yet to be established

Treatments are neither universally nor completely effective, so there is treatment development work to be done
Sertraline in GAD

Sertraline vs Placebo in a 9-Week RCT*

Subjects Receiving Placebo (n = 11)

Subjects Receiving Sertraline (n = 11)

Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Anxiety Disorders

Heather J. Walter, MD, MPH, Oscar G. Bukstein, MD, MPH, A. Reese Abright, MD, Helene Keable, MD, Ujjwal Ramtekkar, MD, MPE, MBA, Jane Ripperger-Suhler, MD, Carol Rockhill, MD, PhD, MPH

- AACAP recommends
  - CBT for 6-18 year old patients with social anxiety, generalized anxiety, separation anxiety, specific phobia or panic disorder
  - **SSRIs** be offered for patients with social anxiety, generalized anxiety, separation anxiety, or panic disorder
  - Combination treatment (CBT + SSRI) could be offered preferentially to patients with social anxiety, generalized anxiety, separation anxiety, or panic disorder
  - **SNRIs** could be offered to patients with these disorders
The Cycle of Anxiety

**COGNITIVE**
Anxious interpretations
Prediction of feared outcome
e.g., “They’ll think I’m stupid”

**PHYSIOLOGICAL**
Somatic Sensations
of anxiety, difficulty concentrating, dizziness, heart racing

**BEHAVIORAL**
Escape/Avoidance
of feared situation/outcome

Temporary Relief
reduced anxiety

*Negative Reinforcement*
Rationale for CBT

Three Components of Anxiety:

- **Biological/Physical:** increase in sympathetic nervous system activity
  - \(\rightarrow\) Muscle relaxation, diaphragmatic breathing

- **Cognitive:** “Expecting bad things to happen.”
  - \(\rightarrow\) Cognitive Restructuring

- **Behavioral:** Avoidance of Threat
  - \(\rightarrow\) Problem solving
  - \(\rightarrow\) Graded Exposure
Adapting CBT to Children and Youth

Exposure and Response Prevention

- Rank ordered list (symptom hierarchy)
- Graded exposure to situations eliciting symptoms while being instructed to not engage in rituals
- Practice in sessions; homework between sessions
- Over repeated exposures, associated anxiety is reduced via “autonomic habituation” and disconfirmation of fear-relevant beliefs
- Response rate: 65 - 90%
- Symptom reduction: 45 - 70%
Workbook Publishing, Inc.

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Information for first time buyers

System Requirements
Summary: Treatment of Pediatric Anxiety Disorders

- Plausible justification for initial treatment with either CBT or pharmacotherapy
- CBT may be the best choice for the mildly ill child
- Treatment with an SSRI is the current drug standard, although the FDA Black Box warning about suicidal ideation requires careful and ongoing monitoring
- In CBT, it is important to be collaborative – MD and therapist should work together to promote success
Symptoms of Depression in Children and Adolescents

- Poor concentration
- Irritability
- Experience of boredom
- Quitting or decreased involvement in activities or relationships
Further symptoms develop as depression persists

- Poor school performance
- Social isolation
- Family conflict
- Appetite and sleep changes
- Appetitive disorders – substance abuse, eating disorder, cutting among adolescents
- Hopelessness
- Acute and chronic suicidal ideation
- Suicide attempts
Depression associated with...

- Child neglect
- Parental depression or substance abuse
- Significant childhood difference (handicap, illness, learning disability)
- Domestic violence, marital conflict or persistent post separation parental conflict
- Other forms of child abuse
Depression associated with...

- Substance Abuse in Adolescents
- Anxiety and Post Traumatic Stress Disorder
- Unresolved grief
- ADHD
- School failure/learning disability
- Conduct problems
Screening for Depression in Children and Adolescents

- Recommendation from US Preventative Task Force
  - Screening for major depressive disorder in adolescents ages 12 to 18 years
    (PHQ-A highest positive predictive value)
  - Adequate systems to ensure accurate diagnosis, effective treatment, and appropriate follow-up
  - Current evidence insufficient to assess balance of benefits and harms of screening for major depressive disorder in children ≤ 11 years

Guidelines for Adolescent Depression in Primary Care

  http://pediatrics.aappublications.org/content/141/3/e20174081
- Conducted focus groups, surveys, literature reviews and analyses of published studies

Guidelines for Adolescent Depression in Primary Care: Navigating the GLAD-PC Recommendations and Toolkit

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Associate Professor of Clinical Psychiatry
Columbia University Irving Medical Center/New York State Psychiatric Institute

Nerissa S. Bauer, MD, MPH, FAAP
NSB Consulting, LLC
Behavioral Pediatrician | Consultant | Blogger
GLAD-PC Recommendations

Identification
- Patients at risk for depression should be identified and systematically monitored

Assessment/Diagnosis
- High-risk adolescents should be evaluated for depression as well as those with a chief complaint of emotional problems
- Clinicians should use standardized tools to aid in the assessment
GLAD-PC Recommendations
Assessment Tools

- Reliance on presenting complaint or family concerns *under-identify* cases
- No “gold standard” screening tool
  - Patient Health Questionnaire – Adolescent (PHQ-A)
  - Kutcher Adolescent Depression Scale (KADS-6)
  - Mood Disorder Questionnaire – Adolescent version
  - Beck Depression Inventory
  - Reynolds Adolescent Depression Scale
  - Mood and Feelings Questionnaire
Scoring the PHQ-9 Modified for Teens

Scoring the PHQ-9 modified for teens is easy but involves thinking about several different aspects of depression.

To use the PHQ-9 as a diagnostic aid for major depressive disorder:

☐ Questions 1 and/or 2 need to be endorsed as a “2” or “3.”
☐ Need five or more positive symptoms (positive is defined by a “2” or “3” in questions 1-8 and by a “1”, “2”, or “3” in question 9).
☐ The functional impairment question (How difficult….) needs to be rated at least as “somewhat difficult.”

To use the PHQ-9 to screen for all types of depression or other mental illness:

☐ All positive answers (positive is defined by a “2” or “3” in questions 1-8 and by a “1”, “2”, or “3” in question 9) should be followed up by interview.
☐ A total PHQ-9 score ≥ 10 (see below for instructions on how to obtain a total score) has a good sensitivity and specificity for MDD.

To use the PHQ-9 to aid in the diagnosis of dysthymia:

☐ The dysthymia question (In the past year…) should be endorsed as “yes.”

To use the PHQ-9 to screen for suicide risk:

☐ All positive answers to question 9 as well as the two additional suicide items MUST be followed up by a clinical interview.

To use the PHQ-9 to obtain a total score and assess depressive severity:

☐ Add up the numbers endorsed for questions 1-9 and obtain a total score.
☐ See table below:

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Depression Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>No or minimal depression</td>
</tr>
<tr>
<td>5-9</td>
<td>Mild depression</td>
</tr>
<tr>
<td>10-14</td>
<td>Moderate depression</td>
</tr>
<tr>
<td>15-19</td>
<td>Moderately severe depression</td>
</tr>
<tr>
<td>20-27</td>
<td>Severe depression</td>
</tr>
</tbody>
</table>

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

Name: ____________________________ 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. Little interest or pleasure in doing things?</td>
<td>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Feeling down, depressed, irritable, or hopeless?</td>
<td>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Trouble falling asleep, staying asleep, or sleeping too much?</td>
<td>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Feeling tired, or having little energy?</td>
<td>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Poor appetite, weight loss, or overeating?</td>
<td>0 1 2 3</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>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Trouble concentrating on things like school work, reading, or watching TV?</td>
<td>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. 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?</td>
<td>0 1 2 3</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>0 1 2 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 past year have you felt depressed or sad most days, even if you felt okay sometimes?

[ ] Yes  [ ] No

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.
GLAD-PC Recommendations
Assessment should include...

- Interviews with family members
- Degree of impairment across domains
- Other psychiatric conditions
Overall Assessment Plan

Visit 1
Is there a problem?
Safety assessment
Other medical conditions
Distribute general rating scale

Visit 2
Review general rating scale
Establish primary diagnosis
Initial treatment plan

Visit 3 and Beyond
Track progress
Check gaps and assumptions
History should always include...

- Family status
- Family stresses and transitions (moving, divorce, death of family member, economic distress/loss of job)
- History of abuse – physical, sexual, emotional
- Peer Relationships
- Legal difficulties and sexual activity (for children over age 11)
History should always include...

- Substance use/abuse
- School performance
- Previous Psychiatric treatment
- Family history of psychiatric disorder
- Suicidal ideation, intent, attempts
Treatment of Mood Disorders in Children and Youth
Evidence for Treatment of MDD in Children and Adolescents

- Treatment research is relatively sparse for MDD in children and adolescents.
- Varied opinions about whether psychotherapy or pharmacotherapy, or a combination should be the first-line treatment.
- Initial acute treatment depends on: severity of MDD symptoms, number of prior episodes, chronicity, age, contextual issues in family, school, social, negative life events, compliance, prior treatment response, motivation for treatment.
Comprehensive Treatment Planning

Non-pharmacological
- Therapy (Individual, group, family)
- Exercise, Nutrition, Exposure to daylight
- Sleep routine/hygiene
- Limiting screen time and social media

School/environmental support
- School accommodations (504 plan)
- Family success centers

Community Resources
- Mobile Response Teams
- Crisis Center

Pharmacology
- Starting an SSRI is not an emergency
- 4-6 weeks for antidepressants to start working

- In mild to moderate depression, therapy should be the first treatment option
- Research shows that a combination of medication and therapy is most effective
- In children younger than 16y.o, medication may not be as effective
- Patient and parent preferences should be considered in the treatment planning process
GLAD-PC Recommendations

Initial Management

- Educate patient and family about depression
- Outline confidentiality and its limits
- Develop a treatment plan with specific goals in key areas of functioning
- Establish roles of primary care and mental health specialist with patient and family
- Establish links with mental health resources
- Monitor for adverse effects of treatment
- Develop a safety plan – contract?
GLAD-PC Recommendations
Further Management

- **Mild depression**: patient education / referral / follow up
  - Recommend scientifically tested treatments
  - Consider active support and monitoring

- **Moderate depression** – consider consultation with a mental health specialist
  - Consider starting an SSRI or an Evidence Based Psychotherapy (EBP)

- **Severe depression**
  - SSRI’s **and** EBP

- **Complicating factors/conditions** (e.g. co-existing substance use disorder, self-injury, suicidal ideation)
  - Consider immediate MH referral or hospitalization
GLAD-PC Recommendations
Further Management

- Continue to track outcomes and functional targets
- Reassess diagnosis and treatment if no response in 6-8 weeks
- Consider consultation with mental health professional if treatments produced only partial response
- Ensure adequate management
Treatment Modalities for MDD

- Psychotherapy: CBT or IPT (with family and individual modules) for mild to moderate MDD
- Antidepressants can be used for: non-rapid cycling bipolar disorder, psychotic depression, depression with severe symptoms that prevents effective therapy or that fails to respond to adequate psychotherapy
- Pharmacotherapy alone may not be effective due to the psychosocial context
Meta-analysis of Antidepressant Trials for Depression in Youth

<table>
<thead>
<tr>
<th></th>
<th>Response Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antidepressants</td>
<td>61%</td>
</tr>
<tr>
<td>Placebo</td>
<td>50%</td>
</tr>
</tbody>
</table>

Pharmacotherapy

- Response 40-70% with medications vs 30-60% for placebo
- Remission with medications lower (30-40%)
- Little efficacy evidence for non SSRIs
- Bupropion effective in open trials
FDA Approval for Acute Treatment of Major Depressive Disorder

<table>
<thead>
<tr>
<th>Medication</th>
<th>Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxetine (3 studies)</td>
<td>8-17</td>
</tr>
<tr>
<td>Escitalopram (1 study)</td>
<td>12-17</td>
</tr>
</tbody>
</table>

Prozac Prescribing Information. Lexapro Prescribing Information.

Pharmacotherapy

- Fluoxetine is the ONLY FDA approved SSRI for children with depression eight years or older
- Escitalopram is approved in children > 12 years old
- Can try other SSRIs if FLX is not effective or intolerable
- How long to treat – 6-9 months after symptom resolution
- Taper over a 2 month period, if symptoms recur, consider another 12 – 18 months of treatment
- Monitor clinical and side effects with standardized scales
- Parents may be depressed, so they need treatment also
- Resolution of family conflicts can be helpful to everyone
FDA Statement on SSRIs

WARNING STATEMENT:

“Health care providers should carefully monitor patients receiving antidepressants for possible worsening of depression or suicidality, especially at the beginning of therapy or when the dose either increases or decreases.”
FDA Statement on SSRIs

Health care providers should be aware of increased or new symptoms of anxiety, agitation, panic attacks, insomnia, hostility, impulsivity, akathisia (severe restlessness), hypomania, and mania in patients taking antidepressants.

While it “has not concluded that these symptoms are a precursor to either worsening depression or the emergence of suicidal impulses, there is concern that patients who experience one or more of these symptoms may be at increased risk for worsening depression or suicidality.”
Treatment Tactics

- **Initiation:** Achieve Target Dose in 1-3 weeks
  - Minimal or no response: total trial should not exceed 4-8 weeks
  - Partial response: trial up to 12 weeks
  - Monitoring: q 1-2 weeks initially
  - Initiate 2\textsuperscript{nd} SSRI for non response to first agent (x-taper)

- **Continuation Phase**
  - Continue medications 6-9 months after symptom remission
  - When discontinuing, taper no more than 25% per week

- **60-70% recurrence of MDD in adulthood**

- **Maintenance:** 3 years – lifetime (no data)
# Starting / Titrating Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Starting Dose (mg/d)</th>
<th>Increments</th>
<th>Effective dose (mg/d)</th>
<th>Maximum dose (mg/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluoxetine</td>
<td>10</td>
<td>10-20</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Escitalopram</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Citalopram</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>Sertraline</td>
<td>25</td>
<td>12.5-25</td>
<td>50</td>
<td>200</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>60</td>
</tr>
<tr>
<td>Bupropion</td>
<td>75</td>
<td>37.5-75</td>
<td>150</td>
<td>300*</td>
</tr>
<tr>
<td>Venlafaxine</td>
<td>37.5-75</td>
<td>37.5</td>
<td>75</td>
<td>225*</td>
</tr>
</tbody>
</table>

*not determined for children
Non-response or Partial Response

Strategies

- Evaluate adequacy of treatment: dose and duration
- Evaluate compliance
- Evaluate non-pharmacologic treatment
- Review environmental factors (including substance abuse)
Non-response or Partial Response

Strategies

- Continue current dose for a longer period of time
- Increase dose
- Decrease dose if side effects are an issue
- Change medication
- Add another medication (augmentation)
Augmentation of Antidepressant Medication for Children and Adolescents

- Lithium
- Thyroid
- L-Tryptophan
- Valproate
- Carbamazepine
- Buspirone
- Light Therapy
Congratulations. You are the winner of this year's polypharmacy award, and will be entered into the Guinness Book of World Records for treating an adolescent with six antidepressants simultaneously.

Really, it was nothing. I started with Prozac, added trazadone for sleep, imipramine for enuresis, anaframil for symptoms of OCD, Wellbutrin to help with hyperactivity, and Zoloft to augment the Prozac.
When Is It Time To Do More?

- To refer or not to refer?
  - If distressing or interfering and cannot be managed at school or home

- When to refer?
  - The longer a problem goes on the harder it may be to treat

- Where to refer?
  - For consultation, contact your NJPPC Hub
  - For ongoing care, ask NJPPC Hub to link you to local CAP network (or contact AACAP)
New Jersey Pediatric Psychiatry Collaborative
Regional Hubs

Atlantic Health Hub @ Newton Medical Center
Atlantic Health Hub @ Goryeb Children’s Hospital
Hackensack Meridian Hub @ Hackensack University Medical Center
Hackensack Meridian Hub @ Palisades Medical Center
Hackensack Meridian Hub @ Middlesex and Mercer
Hackensack Meridian Hub @ Jersey Shore University Medical Center
Cooper Hub @ Cooper University Medical Center
Cooper Hub @ Pennsville

Essex County served by Rutgers University Behavioral Health Care.

New Jersey Chapter
INCORPORATED IN NEW JERSEY
American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN
NJPPC Hub Benefits

- A child and adolescent psychiatrist available for consultative support through the Child Psych. consult line

- A psychologist/social worker available to:
  - Assist the pediatrician with diagnostic clarification and medication consultation,
  - Speak with a referred child’s family regarding the child’s mental health concerns and to assist in providing diagnostic clarification.

- One-time evaluation by a child and adolescent psychiatrist (CAP) at no charge to the patient when appropriate.
  - Based on the recommendation of the CAP, the PPC Hub staff will work with the family to develop the treatment and care coordination plan.

- Continuous education opportunities in care management and treatment in the primary care office for the common child mental health issues: ADHD, depression, anxiety, etc.
NJPPC Hub Telepsychiatry Services

Implementation rolling out as an expansion of the NJPPC

➢ Three platforms to be utilized
  ◦ Face to face
  ◦ Tele pysch from home
  ◦ Tele pysch from pediatric offices

➢ Notify your Regional Hub if interested
Questions?

For more Information or to Register for the NJPPC

Visit:

https://njaap.org/programs/mental-health/ppc

Contact:

NJAAP
Mental Health Collaborative
609-842-0014
mhc@njaap.org