ADOLESCENT DEPRESSION –
ENHANCING OUTCOMES IN PRIMARY CARE
A Resource from the American College of Preventive Medicine

A Clinical Reference
The following Clinical Reference Document provides the evidence to support the Adolescent Depression Time Tool.

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1. INTRODUCTION

Adolescent depression is a serious disorder with a high risk of suicidality, recurrence, and chronicity. [1,2]

- Major depressive disorder (MDD) is a specific diagnosis which includes symptoms of low mood, anhedonia, and other neurovegetative symptoms (i.e., insomnia, decreased concentration, low energy, etc.). [3]
- The Guideline for Adolescent Health – Primary Care (GLAD-PC) provides a diagnostic tool that focuses on screening for MDD. Screening for MDD in adolescents follows a 2009 United States Preventive Services Task Force (USPSTF) recommendation. [4] GLAD-PC can also be applied to other forms of depression, such as dysthymia. [1,2]

MDD is characterized and diagnosed by:

- The presence of five or more of nine symptoms the have persisted for a two week period AND represent a change from previous functioning. [5]
  - At least one of the five or more symptoms is 1) depressed mood OR 2) loss of interest or pleasure in things that previously was interesting or pleasurable. [5]
- Nine categories of symptoms: [5]
  1. Depressed mood most of the day, nearly every day, indicated by subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful).
  2. Markedly diminished interest or pleasure in all or almost all activities most of the day, nearly every day (as indicated by subjective account or observation made by others).
  3. Significant weight loss when not dieting OR weight gain (e.g., more than 5% of body weight in a month); decrease or increase in appetite nearly every day.
  4. Insomnia or hypersomnia every day.
  5. Psychomotor agitation or retardation nearly every day (observed by others, not merely subjective feeling of restlessness or being slowed down).
  6. Fatigue or loss of energy nearly every day.
  7. Feeling of worthlessness or excessive or inappropriate guilt nearly every day.
  8. Diminished ability to think or concentrate or indecisiveness, nearly every day (by subjective account or as observed by others).
  9. Recurrent thoughts of death (not fear of dying), recurrent suicidal ideation without a specific plan or a suicide attempt or a specific plan for committing suicide. [5]

In addition to recognizing 5 or more of the 9 symptoms required to diagnose MDD, primary care clinicians should also review the adolescent’s history to identify other primary causes of depression: [5]

- Symptoms should not meet criteria for mixed bipolar disorder
- Symptoms should not be caused by direct physiologic effects of a substance (e.g., drug of abuse, medication) or a general medical condition (e.g., hypothyroidism).
- Symptoms should not be caused by bereavement – i.e., after the loss of a loved one, the symptoms persist for longer than two months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.
- Symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

CLASSIFICATION OF SEVERITY

According to the DSM-IV, severity can be based on symptom count (of the 9 symptoms). [5]

- This method is commonly used, has been used in large population-based studies [6] and is particularly relevant in primary care settings in which less-severe clinical presentations of depression are more common. [1]
- GLAD-PC guidelines [http://www.glad-pc.org] [1,2] for primary care clinicians' management of adolescent depression distinguish between mild, moderate, and severe MDD.
Mild depression is defined as 5 to 6 symptoms that are mild in severity with only mild impairment in functioning. [1]

In contrast, severe depression is present if a patient experiences all 9 of the DSM-IV symptoms. Depression might also be considered severe if the patient experiences severe impairment in functioning (such as being unable to leave home).

- An adolescent who meets 5 symptom criteria also should be considered severe if he or she presents with a specific suicide plan, clear intent, or recent attempt, or psychotic symptoms.

Moderate depression falls between mild and severe categories. [1]

THE DIFFERENCE BETWEEN ADOLESCENTS AND ADULTS

The clinical picture in adolescents is similar to adults, but with differences due to the stage of physical, emotional, cognitive, and social development adolescents may exhibit mood swings, irritability, low frustration tolerance, temper tantrums, somatic complaints, and/or social withdrawal instead of verbalizing feelings of depression. [8]

In addition, adolescents often have other psychiatric disorders, such as behavior disorders or substance abuse problems. [7]

- Children and teens that cause trouble at home or at school may actually be depressed but not know it. Because the child may not always seem sad, parents and teachers may not realize that the behavior problem is a sign of depression.
- Simply asking the child if he or she is depressed or thinking about suicide can be helpful. Rather than “putting thoughts in the child’s head,” it can reassure the child that somebody cares and it may give the young person the chance to talk about problems.

Examples of Common symptoms of adolescent depression: [7]

- Frequent sadness, tearfulness, crying.
- Hopelessness about the future.
- Decreased interest in activities previously enjoyed.
- Lack of motivation, persistent boredom, low energy level.
- Missed classes, absences from school or poor performance in school.
- Social isolation, lack of connection with friends and family.
- Low self esteem and guilt, feelings of failure.
- Extreme sensitivity to rejection or failure.
- Increased irritability, anger, or hostility.
- Difficulty with relationships, little interest in maintaining friendships.
- Frequent unexplained symptoms of physical illnesses.
- Poor concentration.
- A major change in eating and/or sleeping patterns.
- Talk of or efforts to run away from home – usually a cry for help.
- Thoughts or expressions of suicide or self-destructive behavior.
- Alcohol and drug abuse.
- Self-injurious behaviors, such as cutting – especially if difficulty talking about feelings.

CLINICAL COURSE

The median duration of a major depressive episode for clinically referred youths is about 8 months and for community samples, about 1 to 2 months. [10]

- Although most adolescents recover from their first depressive episode, longitudinal studies of both clinical and community samples of depressed youths have shown that the probability of recurrence reaches 20% to 60% by 1 to 2 years after remission and increases to 70% after 5 years. [11]
- Recurrences can persist throughout life, and a substantial proportion of children and adolescents with MDD will continue to suffer with this disorder during adulthood. [8]
• Many factors may contribute to recurrences, including the presence of stressors such as losses, abuse, neglect, and ongoing conflicts and frustrations, as well as presence of co-morbid psychopathology, physical illness, poor family functioning, parental psychopathology, low socioeconomic status, exposure to negative life events and use of certain medications. [8]

RISK FACTORS FOR DEPRESSION
It is important to recognize risk factors for adolescent depression. The risk for depression is higher in adolescents who have a personal history and/or family history of: [1,7]

- Excessive psychosocial circumstances like:
  - Family crises
  - Physical or sexual abuse
  - Neglect
  - History traumatic experiences
- Depression
- Bipolar disorder
- Suicide-related behaviors
- Have attention, learning, conduct or anxiety disorders.
- Female sex
- Being from racial or ethnic minorities
- Substance abuse

Also any vulnerabilities that increase individuals' chances of encountering stress and decrease their ability to deal with the stressor once it occurs. [12]

2. PREVALENCE

In 2008, 8.3% of adolescents (an estimated 2.0 million aged 12-17) experienced at least one major depressive episode (MDE). [13] Female adolescents (12.4%) experienced MDE with severe impairment more frequently than males (4.3%). [13]

- In primary care settings, the prevalence is likely higher (these children typically have higher rates of health care visits), with rates up to 28% reported. [14-17]

Other studies suggest that up to 9% of teenagers meet the criteria for depression at any particular time, and as many as 1 in 5 teens have met the criteria at some point during their adolescence. [18-22]

A report from the National Research Council and the Institute of Medicine reported that 14-20% of youth experience mental, emotional or behavioral disorders at any given time, and the first symptoms occur two to four years before the onset of a full-blown disorder. [23]

- Mental health problems often begin in adolescence, with up to half of all cases beginning by age 14. [24]

The lifetime prevalence of MDD among adolescents may be as high as 20%. [22, 25-26]

3. SIGNIFICANCE OF THE PROBLEM

Mental illness is the leading cause of disability in the U.S. for people between 15 and 44 years of age. [27]

SUICIDE RISK
Adolescent-onset MDD is associated with an increased risk of death by suicide, suicide attempts, and suicide ideation. [19,28-29]

Suicide is the third leading cause of death in 11 to 18-year-olds, as well as many others with suicidal ideation:
• 22.0% - 28.9% (median = 25.7%) of U.S. high school students (grades 9 – 12) report serious thoughts of killing themselves in the past year. [30]
• 10.9% of high school students report making a suicide plan in the past year. [30]
• 6.3% of high school students report attempting suicide ≥ 1 time(s) in the past year. [30]
• 1.9% of high school students report having made a suicide attempt that required treatment by a nurse or physician in the past year. [30]
• As the rate of depression rises, so does the suicide rate. [7]

Approximately 60% of adolescent depression sufferers report having thought about suicide and 30% actually attempt suicide. [31-33]

Two factors predict risk for repeat suicide attempts among youths who have made previous attempts: [34]
• More severe clinical depression and
• Caregivers who exert more parental control.

The majority (59%) of teen suicide victims had had psychiatric symptoms for more than 3 years before their deaths. [19]

OTHER EFFECTS OF ADOLESCENT DEPRESSION
Depressed youth have other poor long-term outcomes including reduced social functioning, deteriorating school performance, risk for drug and alcohol use, and nicotine dependence. [35,36] For example, the 2008 Results from the National Survey on Drug Use and Health noted that amongst the 2 million adolescents with MDE in the past year, 37.4% reported illicit drug use during the same time period. [13]

Depression during adolescence is associated with:
• Girls being at increased odds of failure to complete high school.
• Failure to enter college, both sexes. [37]
• Higher odds of having intercourse and increased number of sexual partners. [38]

Long-term sequelae of Adolescent MDD include:
• impaired work, social, and family functioning during young adulthood. [28, 29]
• recurrent depression in early adulthood. [19,28, 29]

CO-MORBIDITIES ASSOCIATED WITH ADOLESCENT DEPRESSION
High frequency of concurrent psychiatric disorders:
• 40% to 90% of youths with depressive disorder have other psychiatric disorders, with up to 50% having two or more co-morbid diagnoses. [8]
• Most frequent are anxiety disorders, followed by disruptive disorders, attention-deficit/hyperactivity disorder (ADHD) and substance use disorders.

4. ROLE OF PRIMARY CARE

The management of mental health issues is a growing part of primary care practices. [39]
• 3 out of 4 diagnosed mental health disorders in young people are handled in primary care.
• A key role of primary care is to identify problems early, treat while still mild to moderate, or link to specialty care.
• 3 out of 4 cases of adolescent depression are mild to moderate in severity, and therefore responsive to early intervention. [40]

The majority of adolescents visit a health care provider once a year, providing an ideal opportunity to integrate a brief screening for depression into clinical encounters. [41]
• Nearly 7 in 10 adolescents (12-17 years of age) reported at least one primary care visit during the previous year. [42]
Those with emotional and behavioral problems tend to be more frequent visitors to primary care. [43, 44]

Nearly 1 of every 4 pediatric primary care visits (24%) involves behavioral, emotional or developmental concerns. [45]

An estimated 45% of suicide victims visited their primary care physician in the month prior to their death, and 77% had contact with their primary care physician in the previous year (all ages). [46]

Adolescents report many mental health concerns to their primary care clinicians, [47, 48] and primary care represents a setting in which parents and adolescents feel relatively comfortable disclosing mental health problems. [49, 50]

Adolescents and their families prefer primary care venues for managing adolescent depression.

- More than a third who are referred to mental health specialists do not follow through with the visit. [51]

Depression screening is feasible in primary care, is accepted by patients, parents and providers, and does not disrupt the flow of patient care. [52]

- It increases the identification of adolescents with depression, it increases the rates of referral and it increases the number who are treated. [53, 54]

**PRIMARY CARE CLINICIANS: PERCEPTION OF THEIR ROLE AND REALITY**

Most primary care clinicians believe it is their responsibility to identify depression in their adolescent patients. [55] Surveys have shown that nearly 9 in 10 primary care pediatricians and adolescent psychiatrists believe that it is the responsibility of primary care clinicians to identify depression in adolescents, but only about 1 in 5 feel that it should be treated in the primary care setting. [55-57]

In reality, only a small percentage of depressed adolescents are treated by mental health professionals.

- By default, primary care practices often function as mental health clinics for this population. [58]

  - The pervasive lack of mental health services [51], continuing stigma associated with mental health referral, and families' expressed preferences for obtaining mental health care in the primary care setting [58], suggest that primary care clinicians are likely to shoulder increasing responsibility not only for identifying but also for managing youth with depression.

- Primary care clinicians have become the major providers of mental health services by default, despite the fact that clinicians are often not reimbursed for services. [59, 60] These circumstances have led to:
  - Recommendations that primary care should be provided the necessary guidance to support their management of mental health problems. [61-63]
  - Development of Guidelines for Adolescent Depression in Primary Care (GLAD-PC) by a committee of primary care experts, depression researchers, guideline development experts, policy-makers, and family organization representatives. [1,2]

**5. PRACTICE PATTERNS**

**ADOLESCENT MENTAL HEALTH DISORDERS: DIAGNOSTIC RATES**

Despite the relatively high frequency of MDD in adolescents, this disorder is undertreated and often not identified in primary care settings.

- Epidemiologic studies suggest that approximately half of depressed adolescents are diagnosed before reaching adulthood. [64]

Pediatricians tend to under identify children with mental health problems, especially of mood and anxiety related symptoms. [65] As a result, as many as 2 in 3 depressed youths are not identified by their primary care clinicians and do not receive any kind of care. [66] Under diagnosis may due to:
1. Infrequent inquiry for symptoms of depression: The Periodic Survey from the American Academy of Pediatrics found that only about half of primary care pediatricians “usually” inquire about depression among their patients. [57]

- Infrequent discussion of emotional health: Data from the California Health Interview Survey shows that in well-visits, only 1 in 3 adolescents reported a discussion of emotional health. [67]
- Infrequent screening of adolescents for suicide risk factors: In a cross-sectional survey of pediatricians and family physicians 47% reported that at least one of their adolescent patients attempted suicide in the previous year, but only 23% routinely screen adolescent patients for mental disorders or suicide risk factors. [68]
- Infrequent use of Validated Assessment tools: Fewer than 1 in 3 pediatricians use a standardized instrument to assess for depression. [69]

Most primary care clinicians rely on presenting complaints and family concerns to identify depressed youth. [55]

Relying on complaints or simple interviews leads to under-identification of depression. [70]

Even physicians who are trained in mnemonics to guide interviews under-identify adolescent depression. [71]

PREVALENCE OF APPROPRIATELY TREATED ADOLESCENTS

The Surgeon General and the Institute of Medicine report only 1 in 5 adolescents with mental health disorders receive appropriate treatment. [24, 40] Other sources indicate that the majority of depressed adolescents do not receive any type of treatment, [72-74] and those that receive treatment only about half of diagnosed adolescents with depression are treated appropriately. [64] In 2008, only 38.9% of adolescents with MDE in the last year received treatment for their depression. [13]

Overall, only a minority of children with mental health problems are referred to a mental health provider. [52] One study noted that fewer than 2% of childhood psychiatric problems are treated by mental health professionals. [75]

ROLE OF EMERGENCY DEPARTMENTS

Over the past decade, child mental health related visits to hospital emergency departments have significantly increased, suggesting that emergency departments have also become substitute sources of care for routine mental health problems. [76]

- A chart review of 25 hospital emergency departments found that depression was among the top five diagnoses for adolescents 15-18 years old presenting to hospital emergency departments. [77]

6. CASE FINDING AND DIAGNOSIS

IDENTIFICATION OF ADOLESCENT DEPRESSION

An important step to improving recognition and diagnosis of adolescent depression is to initiate (if not already being performed) routine monitoring for:

- Presence of risk factors that increase the likelihood of depression (See I. Introduction: Risk factors for adolescent depression). [1]
- Symptoms of depression in those at high risk for depression (See I. Introduction: The difference between adolescents and adults), and those adolescents who present with emotional problems as the chief complaint. [1]
  - Common symptoms that may signal adolescent MDD: [1]
    - Insomnia
    - Weight loss
    - Decline in academic functioning
    - Family conflict
Identification of depression in high risk adolescents, those with symptoms of depression, or those with a chief complaint of emotional problems should be done systematically using DSM-IV-TR criteria [5] and through:

1. Direct physician – patient interviews,
2. Direct interviews with families/caregivers, and
3. The use of standardized, psychometrically reliable screening tools. [1] (For more information about recommended screening tools, rating scales and cutoff scores, refer to the GLAD-PC toolkit – [http://www.glad-pc.org/].

Three other important areas to assess during patient and family/caregiver interviews include:

1. Assessment of the degree of functional impairment in different domains (e.g., home, school, peer settings),
2. Identification of other psychiatric conditions, and
3. Identification of comorbidities that may affect diagnosis or treatment (e.g., substance abuse, anxiety disorder, attention-deficit /hyperactivity disorder, sexual abuse, etc.). [1]

SCREENING WITH STANDARDIZED TOOLS

Assessment is quick and easy to administer -- a brief questionnaire taken by patients in the waiting or examination room. [1]

- Reviewing and scoring the questionnaire is a simple way to evaluate if a teen is suffering from depression or another mental health condition or is at risk for suicide.

Standardized instruments can greatly improve the assessment process. There are several such instruments that perform fairly well among adolescents. [1, 80]

- The USPSTF analysis found the best evidence supporting the Beck Depression Inventory [81] the Patient Health Questionnaire for Adolescents (PHQ-A) [82].
  - Sensitivity ranged from 73% for the Patient Health Questionnaire for Adolescents (PHQ-A) [82] to 91% for the Beck Depression Inventory-Primary Care Version (BDI-PC). [83]
  - Specificity ranged from 91% (BDI-PC) to 94% (PHQ-A).
  - Positive predictive values were 56% for both tests and negative predictive values of 97% to 99%.

- Other commonly used adolescent-screening instruments include the:
  - Reynolds Adolescent Depression Screen [84] and the Mood and Feelings Questionnaire. [85]
  - The Kutcher Adolescent Depression Scale is a newer 6-item instrument
    - Sensitivity and specificity of 81% and 86%, respectively, in a school population with a positive predictive value of 39% and a negative predictive value of 98%. [86]

EXAMPLE SCREENING TOOL: PATIENT HEALTH QUESTIONNAIRE-2 (PHQ-2)

This screening survey has only two questions:

- Over the past few weeks, have you often felt down, depressed, or hopeless?
- Have you lost interest in or no longer take pleasure in doing things you used to enjoy?

If respondents indicate “yes” to either question, the screening test is positive. [71, 79]

7. MANAGING ADOLESCENT DEPRESSION

THE TREATMENT PLAN [2]

There are many approaches to treating adolescent depression (e.g., active monitoring, psychotherapy, psychosocial interventions) [2]. However, given the episodic nature of depression, the varying degrees of severity, and different available pharmacotherapeutic agents, primary care clinicians must recognize that a successful treatment approach at one time may be unsuccessful at a later date. [2] Nonetheless, there are basic components of any treatment approach [2]:

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• Education and Support for the patient and family.
• Recognition and solicitation of patient and family preferences for treatment options, as well as availability of treatment services.
• Customization of treatment plan according to the severity of disease, risk of suicide, and co-morbid conditions.
• Safety plan should be included.
• Mental Health Specialist: The need for a consultation with a mental health specialist should be considered.
• Physical and Nutritional health should also be included.
• Interventions should take into account family cultural and religious background and focus on strengthening relationships, providing parental guidance (e.g., management of conflicts), and reducing family dysfunction. [87]
• The GLAD-PC toolkit provides detailed guidance regarding treatment choices (i.e., a patient with psychomotor retardation may not be able to actively engage in psychotherapy).

EDUCATION AND SUPPORT
Adolescents and families should be educated that many adolescents experience symptoms transiently and may not need specialized care. For many adolescents, primary care clinicians can provide active treatment by simply listening, being supportive, and offering strategies to deal with life situations that frequently underlie depression. [2]

Focus of education
Educate adolescents and families on depression causes, symptoms, course of disease, different treatments of depression and the risks associated with these treatments versus no treatment at all. [87] The goal of education is to make the treatment decision-making process transparent and should enlist patient and parent as collaborators in their own care.

Key educational messages [87]
• Depression is an illness, not a weakness; it is no one’s fault but usually involves genetic and environmental factors.
• The difficulties that the child experiences in functioning are manifestations of the illness.
• It is often a recurrent illness that may have a prolonged period of recovery.
• Do not be disappointed if recovery is prolonged; the keys to beating depression are staying with the treatment plan over the long term.
• Provide the parents with guidance about parenting: when to be strict and when to be lax in light of their child’s depression.
• Enhance understanding of depression by providing written materials and reliable internet sites about depression and its treatment.

Support
• Supportive management for the adolescent performed by the primary care clinician may include active listening and reflection, restoration of hope, assistance in learning problem solving and coping skills, and strategies for maintaining participation in treatment. [87]
• Family involvement -- it is virtually impossible to successfully treat an adolescent patient without the close involvement of parents. [87]
  o Motivation often comes from parents.
  o Monitoring the adolescent for worsening symptoms. This is a key role in maintaining a safety net for the adolescent. [87]

PSYCHOTHERAPY
Psychotherapy by a trained therapist is recommended as a first-line treatment for depressed adolescents, especially if preferred over pharmacologic therapy. Psychotherapy includes cognitive behavioral therapy (CBT) and interpersonal therapy (IPT). [2]

CBT
- **Therapeutic targets**: improve mood by focusing on patient's thoughts and behaviors.
- **Therapeutic goals**: increase pleasurable activities (behavioral activation), reduce negative thoughts (cognitive restructuring), and improve assertiveness and problem-solving skills to reduce feelings of hopelessness.
- **Who is included during CBT?** Adolescents may include sessions with parents/caregivers to review progress and increase compliance with CBT-related tasks.

**IPT**

- **Therapeutic targets**: the patient's interpersonal problems to improve both interpersonal functioning and his or her mood.
- **Therapeutic goals**: identify interpersonal problem area(s), improve interpersonal problem-solving skills, and modify communication patterns.
- **Who is included during IPT?** Parents/caregivers are involved in sessions during specific phases of the therapy.

Psychotherapy may be less feasible and practical (i.e., time, availability of trained staff), but evidence supports its role in enhancing the quality of care of depressed adolescents.

**PHARMACOTHERAPY**

Antidepressant medications can be useful in certain clinical situations, [2] and the decision to treat an individual pediatric patient with an antidepressant should be based on:

- The clinical situation
- How closely the patient will be monitored, either through the clinical setting or at home. [80]
- Follow-up is essential in light of 2004 FDA black box warning about increased suicide risk during the first two months of treatment with antidepressant medication (http://www.fda.gov/Drugs/DrugSafety/InformationbyDrugClass/ucm096273.htm).

Use of a selective serotonin reuptake inhibitor (SSRI) is indicated when there is a clear clinical presentation of MDD and no co-morbidities. Prior to initiating an SSRI there should also be patient/family preference with the treatment approach using an SSRI. [2]

- The patient and family should be informed about the potential adverse effects including the possibility of experiencing mania or the development of behavioral activation or suicidal behavior.
- Once the antidepressant is started, and the patient tolerates the SSRI, the clinician should ensure an adequate trial of maximal dose and treatment duration.
- GLAD-PC Toolkit provides an excellent section on titration of SSRI doses [http://www.glad-pc.org/].

Table 1 from GLAD-PC [http://www.glad-pc.org/] lists recommended SSRI’s and dosages for use in youth with depression from GLAD-PC. Note how the effective dosages for adolescents are lower than for adults, and that only fluoxetine is FDA-approved for children and adolescents with depression. [2] As with any therapeutic agent clinicians should:

- Know the potential drug interactions with SSRI’s
- Know that discontinuation of all SSR’Is, with the exception of fluoxetine, should be done with a schedule that slowly decreases the dose to avoid withdrawal effects.

Details regarding the initial selection of a specific SSRI and possible reasons for initial drug choice can be found in the GLAD-PC toolkit [http://www.glad-pc.org/].
TABLE 1 SSRI Titration Schedule from GLAD-PC guidelines. [2]

<table>
<thead>
<tr>
<th>Medication</th>
<th>Starting Dose mg/d</th>
<th>Increments mg</th>
<th>Effective Dose mg</th>
<th>Maximum Dose mg</th>
<th>Contraindication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citalopram</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>60</td>
<td>MAOIs*</td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>10</td>
<td>10-20</td>
<td>20</td>
<td>60</td>
<td>MAOIs*</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>50</td>
<td>50</td>
<td>150</td>
<td>300</td>
<td>MAOIs*</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td>60</td>
<td>MAOIs*</td>
</tr>
<tr>
<td>Sertraline</td>
<td>25</td>
<td>12.5-25</td>
<td>50</td>
<td>200</td>
<td>MAOIs*</td>
</tr>
<tr>
<td>Escitalopram</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>MAOIs*</td>
</tr>
</tbody>
</table>

*MAOI = Monoamine oxidase inhibitor

SAFETY PLANNING
Safety planning with depressed, suicidal or potentially suicidal adolescent patients consists of: [2]
- Instructing the family to remove lethal means.
- Educating the family to recognize warning signs of suicide.
- Instructing the family to monitor for warning signs of suicide.
- Engaging the potentially suicidal adolescent in his or her treatment.
- Providing adolescents with mutually agreeable and available emergency contacts should they find themselves with increasing suicidality.
- Establishing clear follow-up appointments.

CONSULTATION WITH A MENTAL HEALTH SPECIALIST
A critical recommendation of the GLAD-PC guidelines is the need to establish connections with available mental health resources. [2] This is especially important for more complex cases that require input from mental health specialists. The current barriers to consulting mental health specialists (i.e., lack of reimbursement for telephone calls with patients, lack of coordination between primary care clinicians and specialists) are recognized and require systemic changes to the current health care system. [See Section 12 Enhancing Care for Adolescent Depression]

8. ASSESSING AND MANAGING SUICIDE RISK

PROGNOSTIC SIGNIFICANCE
Suicidal ideation and suicide attempts are common in adolescence and do not have the same prognostic significance for completed suicide as those behaviors in later life. [2]

ASSESSMENT OF HIGH-RISK ATTEMPTERS [http://www.glad-pc.org/]
- Organized Plan - Highly Lethal Or Unusual Method with Wish To Die/Concealment
- Rational Thinking Lost
- Sex – Females attempt more suicides; Males complete more suicides.)
- Age Over 16
- Depression (And Comorbid Conduct Disorder/Aggressive Outbursts)
- Previous Attempts
- Ethanol Abuse (Or Substance Abuse)
- Social Supports Lacking
• No Significant Other  
• Sickness/Stressors  
• First-Degree Relative  

**WARNING SIGNS FOR SUICIDE AND CORRESPONDING ACTIONS**  
Call 9-1-1 or seek immediate help from a mental health provider when you hear or see any one of these behaviors:

• Someone threatening to hurt or kill themselves.  
• Someone looking for ways to kill themselves: seeking access to medications, weapons, or other means of inducing harm to self.  
• Someone talking or writing about death, dying, or suicide.  
• Seek help by contacting a mental health professional or calling 1-800-273-TALK (8255) [88] for a referral should you witness, hear, or see anyone exhibiting any one or more of these behaviors:
  o Hopelessness  
  o Rage, anger, seeking revenge  
  o Acting reckless or engaging in risky activities, seemingly without thinking  
  o Feeling trapped—like there's no way out  
  o Increasing alcohol or drug use  
  o Withdrawing from friends, family or society  
  o Anxiety, agitation, unable to sleep, or sleeping all the time  
  o Dramatic mood changes  
  o No reason for living; no sense of purpose in life


**Ways to Help Prevent Suicide in Depressed Adolescents**  
• Encourage adolescents and parents to make their homes safe.  
• In teens ages 10-19, the most common method of suicide is by firearm, followed closely by suffocation (mostly hanging) and poisoning. All firearms and other weapons should be removed from the house, or at least locked up.  
• Other potentially harmful items such as ropes, cords, sharp knives, alcohol, prescription medications, and poisons should also be removed.  
• Ask about suicide.  
  o Providers and parents should ask regularly about thoughts of suicide.  
  o Provides should remind parents that making these inquiries will not promote the idea of suicide.  
• Watch for suicidal behavior.  
  o Behaviors to watch for in children and teens include:  
    ▪ expressing self-destructive thoughts  
    ▪ drawing morbid or death-related pictures  
    ▪ using death as a theme during play in young children  
    ▪ listening to music that centers around death  
    ▪ playing video games that have a self-destructive theme  
    ▪ reading books or other publications that focus on death  
    ▪ watching television programs that center around death  
    ▪ visiting internet sites that contain death-related content  
    ▪ giving away possessions  
• Watch for signs of alcohol use:  
  o If a child has depression, feels suicidal, and drinks a lot of alcohol, the person is more likely to take his or her life.  
  o Parents are usually unaware that their child is drinking. If your child is drinking, you need to discuss this with your child and the clinician.  
• Develop a suicide emergency plan.  
• Work with patients and parents to decide how do proceed if a child feels suicidal. It is important to be specific and provide adolescents with accurate names, phone numbers and addresses [http://www.glad-pc.org/].  

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9. EVIDENCE REVIEW

Few studies have directly examined the effectiveness of primary care physicians and their staffs in "real-world" settings in the recognition and treatment of depression in adolescents. [89]

The Youth-Partners-in-Care study [90] is one that has; it is the best reflection of the current recommendations:

- A large multisite, quality improvement (QI) intervention that included evaluations, education, evidence-based psychosocial treatment, medication if desired, follow-up, and links to specialty mental health services
- It resulted in significantly lower depression scores and rates of severe depression, higher mental health-related quality of life and greater satisfaction with mental health care.
- Improving links between primary care and mental health was a key factor in the better outcomes.
- Most (87.5%) in the intervention chose not to use medication.

There is growing evidence from a few good-quality randomized control trials (RCT’s) showing the effectiveness of cognitive behavior therapy, psychodynamic therapy, interpersonal therapy and family therapy in the treatment of pediatric depression. [80,91]

- There is also evidence that SSRI’s may be particularly effective for severe depression, keeping in mind the risk of increased suicidality.
- There is also indirect evidence from other psychosocial/behavioral interventions and from adult depression studies that also show benefits of primary care–delivered interventions, as well as the impact of provider training to enhance psychosocial skills. [89]

EDUCATION AND SUPPORT

Education and support appear to be sufficient treatment for many adolescents with uncomplicated or brief depression or with mild psychosocial impairment. [87]

- MDD in children and adolescents is more responsive to placebo therapy than other internalized conditions, such as anxiety, highlighting the differential psychopathology.
- At least half of diagnosed adolescents respond favorably to placebo treatment, which typically includes nondirective support, monitoring and problem solving. [92,93]
- Lower illness severity and younger age are associated with a higher placebo response, that is, a better response to simple support and education. [94]

For mild depression, supportive treatment is as effective as either cognitive-behavioral therapy (CBT) or IPT. [87]

- But it is inferior with more severe depression or with suicidal ideation/behaviors.

A review of specific psychosocial interventions reported limited evidence, but several interesting studies, of the effectiveness of education and counseling in primary care. [89]

- A preventive intervention for children of depressed parents -- multiple sessions with parents and children separately and together significantly improved child behaviors and attitudes, and had an enduring effect on families' problem solving abilities. [95]
- A nurse counseling intervention to enhance self efficacy for behavior change in depressed adolescents significantly improved depression scores. [96]
- The adult depression primary care literature provides indirect evidence – psychosocial support by a physician, nurse, or other staff, in the context of 15-minute problem-solving therapy, improved outcomes in depressed adults. [97-100]

Taken together, the evidence suggests that intensive psychosocial interventions can be beneficial in primary care settings, with greater treatment "intensity" being associated with better results. [2]
• Such interventions may be beyond the scope of many practices, but with sufficient support, training, and staffing, they can be delivered by other members of the primary care team.

PSYCHOTHERAPY
Psychological interventions, including group cognitive behavioral therapy (CBT) and interpersonal psychotherapy (IPT-A), have been linked to clinical improvement in depression and may be useful for supplementing usual care.

• Nine of 10 psychotherapy trials found that treated patients had higher short-term response rates or a greater reduction in depression symptoms after interventions compared with a variety of control conditions. [80]

• A meta-analysis of 10 RCT's found that the psychological interventions were more effective than usual care in both the short and long term, and there were no differences in effectiveness compared to medication. [100]

The average adolescent with mild depression treated with psychotherapy (CBT or IPT) has better outcomes post-treatment than 75% of controls. [101]

• A meta-analysis that included analysis of ethnicity effects, the overall treatment effects were of medium magnitude, and ethnicity did not moderate outcomes.

• More evidence addressed treating Latino youth with depression than any other minorities, with the conclusion that CBT was “probably” efficacious and IPT “possibly” efficacious.

• In other words, psychotherapy works in young people, no matter their ethnicity.

• Data do not support the need for culturally specific interventions.

Adolescents have been found to prefer psychotherapy over antidepressants. [102]

Cognitive Behavioral Therapy
CBT is the most studied intervention for adolescent depression and, overall, results support its effectiveness. [103]

• A meta-analysis showed that a quarter of depressed adolescents remit with only brief cognitive therapy. [104]

Another review of 12 studies concluded that there was solid evidence of the effectiveness of CBT conducted by trained therapists for mild-to-moderate depression. [105]

• Among evidence-based therapies, cognitive–behavioral approaches show the strongest record of success with ethnic minority youth. [101]

Some studies have evaluated the effectiveness of CBT in “real-world” situations.

• A nurse-led group CBT intervention in a high school found that students who completed the program had significantly better depressive scores immediately after treatment and at 6 months compared to usual care. [106]

• Another study with more difficult 13- to 17-year-old adolescents with MDD compared the effectiveness of a CBT-based "Coping With Depression" course with a life skills course -- 39% of those who "completed" the CBT course recovered compared with only 19% of the life skills control group. [107]

Interpersonal Therapy (IPT)
IPT is emerging as another effective psychotherapy for adolescent depression; shown to be superior to twice-monthly supportive clinical management, with differences most prominent in those who were moderately or severely depressed and in older teens [108, 109]

• Shown to be at least as efficacious as CBT in depressed Puerto Rican adolescents. [110]

• IPT appears to be relatively easy to disseminate; therapists with brief training and supervision were able to improve depression using IPT compared with treatment as usual. [108]
ANTIDEPRESSANT MEDICATIONS
Overall, both individual clinical trial evidence and evidence from systematic reviews support the use of selective serotonin reuptake inhibitors (SSRIs) for the treatment of adolescent depression, although there are concerns regarding both efficacy and increased risk of suicide. [111, 112]

Across 9 SSRI trials, response rates varied considerably. Positive response at post-intervention follow-up: [80]
- Treatment groups: 36% to 69%
- Placebo-control groups: 24% to 59%
- Pooled absolute risk difference (RD) in the response rate between treatment and placebo groups was 12%
- Fluoxetine and citalopram yielded significantly higher response rates.

Adolescent patients treated with an SSRI were more likely to show a response to treatment than patients treated with placebo pills (placebos, however, also showed a relatively high response rate). [80]
- Fluoxetine has been consistently shown to be most efficacious for pediatric populations (has also been used the longest).
- The USPSTF analysis showed that the absolute risk difference is about 20%, which means that about 5 adolescents with MDD would need to be treated (NNT) with fluoxetine for 1 to benefit.

Other analyses have found the NNT for fluoxetine to be somewhat higher – 9 [116] and 10 [114-116]
- Depressed patients treated with SSRIs have a relatively good response rate (40%–70%), but the placebo response rate is also high (30%–60%). [114-116]
- The NNT for tricyclics has been reported to be 14. [117]

Medication Maintenance
The greatest risk of relapse is in the first 8 to 12 weeks after discontinuing medication, which suggests that after stopping an antidepressant, close follow-up should be encouraged for at least 2 to 3 months.
- Medication maintenance after response to fluoxetine resulted in significantly fewer relapses in those who remained on medication for up to a year. [118]

Adverse Effects -- Suicide-related events (SREs)
SREs include suicidal ideation, suicide attempts, or preparatory actions toward imminent suicidal behavior. In 2004, the FDA issued a black box warning about increased suicide risk when using antidepressant medication. [2]
- The exact wording of the FDA recommendation: 
  "all pediatric patients being treated with antidepressants for any indication should be observed closely for clinical worsening, suicidality, and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases."
- The most conservative estimates from FDA analyses indicate that treating youth with antidepressants leads to a 2% absolute increase in risk of experiencing either suicidal ideation or behavior. [119]
- For 1 patient to develop suicidality attributable to antidepressant therapy, about 50 patients would need to be treated. [80]
- Another analysis incorporated additional sources of within and between trial heterogeneity and found that the absolute RD was 1% and that the number needed to harm was 112. [120]

In either case, available data indicate that a patient is more likely to benefit from treatment than to develop suicidality. [80]
- Nevertheless, suicidality is an extremely serious risk, thus the overall balance of risk and benefit of treatment with antidepressants is not yet clear.
- What is clear is the need for systematic monitoring for adverse events in all adolescents who are treated with antidepressants.
Other Adverse Effects
Overall, the SSRIs and other novel antidepressants are quite well tolerated, with few short-term side effects. [87]
- The most common side effects include gastrointestinal symptoms, sleep changes (e.g., insomnia or somnolence, vivid dreams, nightmares, impaired sleep), restlessness, diaphoresis, headaches, akathisia, changes in appetite (increase or decrease), and sexual dysfunction.
- Adverse effects (i.e., nausea, headaches, behavioral activation, etc.) occur in up to 93% of the subjects treated with these medications but also in up to 75% of those treated with placebo when subjects are asked about specific adverse effects. [115]

COMBINATION THERAPY
Combining psychotherapy and pharmacotherapy is more effective than either alone.
- The multicenter Treatment for Adolescents With Depression Study (TADS) compared 4 groups -- CBT, fluoxetine, CBT plus fluoxetine, and placebo. [120]
- The combination of CBT with fluoxetine was the most effective treatment -- the only treatment that resulted in a significant improvement of depression symptoms.
- Combination therapy also reduced persistent suicidal ideation and events more.
- Nearly 3 of 4 patients responded to combined therapy.
- These results indicate that 2 to 3 adolescents would need to be treated with combined CBT plus fluoxetine therapy for 1 adolescent to benefit from the therapy. [80]
- However, the results were true only for patients with moderate but not severe depression. [120]
- At longer term follow-up (30 weeks) CBT-alone, fluoxetine-alone, and combined treatment responses converged. [121]

Another RCT confirmed that even brief CBT added to fluoxetine can enhance outcomes, although modestly. [122]

However, other more recent studies have reported no benefit for combined treatment over SSRIs alone, at least in moderate to severe cases. [123, 124]

COORDINATION OF CARE
A critical recommendation of the current guidelines is the need for PCPs to establish connections with available mental health resources in the community. [2]
- Complex cases require mental health consultation.
- Increased coordination of care is linked to improved outcomes for youth with both general medical and mental health disorders. [125-128]

Evidence suggests that more complex interventions that include shared decision-making between providers and patients are likely to have greater impact on both adherence and treatment outcomes. [129]
- This review found little evaluation of the broad application of the medical home, but some evidence for positive outcomes for various aspects of the concept.
- In one study, children without a medical home were twice as likely to delay or forego needed care and to have unmet health care service needs. [130]

10. RECOMMENDATIONS FROM LATEST GUIDELINES
The Guidelines for Adolescent Depression in Primary Care (GLAD-PC) were developed for the management of adolescent depression in the primary care setting. [1,2]

Specific Recommendations include:

IDENTIFICATION
Depression risk factors should be identified and systematically monitored for the development of a depressive disorder. [1]
• Risk factors include:
  o a personal OR family history of depression,
  o bipolar disorder or other psychiatric illness,
  o suicide-related behaviors,
  o substance abuse,
  o significant stressors such as family crises, physical and sexual abuse and neglect, and other history of trauma.

Clinicians should routinely monitor psychosocial functioning because emotional problems may be an early indication of depression. [1]

- Clinicians should screen all adolescents for key depressive symptoms including depressive or sad mood, irritability, and anhedonia. [87]
- A diagnosis of a depressive disorder should be considered if these symptoms are present most of the time, affect the child's psychosocial functioning, and are beyond what is expected for the chronological and psychological age of the child. [87]

**ASSESSMENT/DIAGNOSIS**

Adolescents at high risk, or presenting with emotional problems, should be evaluated for depression. [1]

- If screening indicates significant depressive symptoms, a thorough evaluation should be performed for the presence of depressive and other co-morbid psychiatric disorders. [4]
- Assess depressive symptoms based on diagnostic criteria of the DSM-IV or International Classification of Diseases, 10th Revision. [1]
- Use a standardized depression questionnaire to aid the assessment. [1]
- Options include:
  o General mental health assessments such as the Guidelines for Adolescent Preventive Services and Strength and Difficulties Questionnaire
  o Specific emotional symptom checklists such as the Beck Depression Inventory or the Kutcher Adolescent Depression Scale.
  o Mnemonic-based interviews (e.g., HEADSS: home, education/employment, activities, drugs, sexuality, suicide/depression).

The assessment should include:
- direct interviews with the patient and family/caregivers [1]
- assessment of functional impairment in different domains [1]
- other psychiatric conditions [1]
- assessment for the presence of harm to self or others [87]
- ongoing or past exposure to negative events, the environment in which depression is developing, support, and family psychiatric history [87]

Because depression is closely associated with suicidal thoughts and behavior, it is imperative to evaluate these symptoms at every assessment. [87]

A mood diary and mood timeline is often helpful; uses important dates as anchors. [87]

- Mood is rated from very happy to very sad and/or very irritable to non-irritable, and includes normative and non-normative stressors.
- The timeline helps visualize the course of moods and co-morbid conditions, identify events that trigger symptoms, and evaluate the response to treatment.

**WHEN TO REFER**

Obtain a consultation if the adolescent develops psychosis, suicidal or homicidal ideation, or new or worsening of co-morbid conditions. [1]

- Mild depression: A period of monitoring is appropriate before consulting mental health.
- Moderate depression: A consultation should at least be considered.
- Severe depression or with co-morbidities or complicating factors: A consultation is recommended.
INITIAL MANAGEMENT
Educate and counsel all diagnosed patients and families about depression. [1]

Maintain a confidential relationship with the adolescent while developing collaborative relationships with parents, other mental health professionals, and school personnel. [87]
  • Discuss the limits of confidentiality with the adolescent and family. [1]

Develop links/collaborations with mental health resources in the community, which may also include patients and families who have dealt with adolescent depression and are willing to serve as resources to affected adolescents and their families. [1]

TREATMENT PLAN
Develop a treatment plan with patients and families and set specific goals in key areas of functioning, including home, peer, and school settings. [1]
  • Treatment of depression always includes acute and continuation phases, and often an extended maintenance phase. [87]
  • Each phase of treatment should include psycho-education, supportive management, and family and school involvement. [87]
  • Should also include a safety plan that includes steps to restrict lethal means, identification of a concerned third party, and an emergency communication mechanism should the adolescent experience an acute crisis. [1]

Mild cases:
  • A 6-8 week period of active support and monitoring is recommended before starting other evidence-based treatment. [2]
  • Should include education, support, and problem solving related to environmental stressors in the family and school. [87]

Moderate to severe cases (or with complicating factors/conditions):
  • Consultation with a mental health specialist should be considered. [2]
  • Recommend proven treatments (i.e., psychotherapies such as CBT or IPT and/or antidepressant treatment such as SSRIs) as appropriate and preferred to achieve the goals of the treatment plan. [2]
  • For those who do not respond to psychotherapy or who have more complicated depression, a trial with additional types of psychotherapy and/or antidepressants is indicated. [91]
  • Clinicians should monitor for adverse events during antidepressant treatment (SSRIs). [2]
  • Treatment must include the management of co-morbid conditions. [87]

FOLLOW-UP
Diagnosis and initial treatment should be reassessed if no improvement is noted after 6 to 8 weeks of treatment. [2]

During all phases of treatment, clinicians should arrange frequent follow-up with sufficient time to monitor clinical status, environmental conditions, and medication side effects. [87]
  • Systematic tracking of goals and outcomes from treatment should be performed, including assessment of symptoms and functioning in key domains: home, school, and peer settings. [2]

For an adolescent who is not responding, consider factors associated with poor response. [87]
  • Explore adherence, co-morbid disorders, and ongoing conflicts or abuse
  • For those who achieve only partial improvement, a mental health consultation should be considered. [2]

When a referral is made, continue to actively support the depressed adolescent to ensure adequate management. [2]
• Specific roles and responsibilities regarding the provision and coordination of care should be discussed and agreed upon with the mental health specialist. [2]
• The patient and family should be consulted and approve the roles of each. [2]

PREVENTING RECURRENCES
To consolidate the response to the acute treatment and avoid relapses, treatment should always be continued for 6 to 12 months. [87]

Strategies to prevent recurrences should include: [87]
• Amelioration of risk factors.
• Lifestyle modifications: regular and adequate sleep, exercise, a coping plan for stress (e.g., meditation, yoga, exercise, social activities), pursuit of enjoyable and meaningful activities, and avoidance of situations that are predictably stressful and nonproductive.
• A proactive plan to avoid stressors and a plan for coping with anticipated difficulties.

11. OTHER ORGANIZATION POSITIONS AND RECOMMENDATIONS

Historical Perspective
• 1999 – Surgeon General Report on Children’s Mental Health brought to attention the need for greater emphasis on social, emotional, environmental and behavioral factors in child and adolescent mental health.
• 2003 – President’s New Freedom Commission on Mental Health identified the importance of better coordination between mental health and primary care in children.
• 2006 – Institute of Medicine (IOM) report supporting need for effective coordination of care by primary care, mental health and substance abuse providers and development of tools for screening, care coordination models for child and adolescent mental health problems.
• 2008 – AAP adds mental health assessment and counseling as a theme of the latest edition of their Bright Futures Guidelines.
• 2009 – USPSTF recommends screening for major depressive disorder in all adolescents 12-18 years of age at every visit.

RECOMMENDATIONS
Surgeon General and Presidential Commission on Mental Health
• Endorse screening for mental illness. [131, 132]

The Institute of Medicine and National Research Council
• Call for evidence-based screening and recommend that the federal government should make preventing mental, emotional and behavioral disorders and promoting mental health in young people a national priority. [23]

U.S. Preventative Services Task Force
• Recommends that primary care providers routinely screen all teens for depression. [3]

American Academy of Pediatrics
• Recommends annual confidential screening and referral for emotional and behavioral health problems for adolescent patients. [87]
• Highlights role of pediatricians in reducing adolescent suicide by routinely screening for depression, suicide ideation and behavior and stressed the importance of addressing mental health issues among adolescents in primary care. [87]
• Provides guidelines and recommendations for addressing mental health with adolescent patients in their Bright Futures program. [133]

American Academy of Child and Adolescent Psychiatry
• Stresses the importance of collaboration between mental health and primary care. [134]

Society for Adolescent Health and Medicine (SAHM)
• Supports the early identification of mental health problems as a critical standard of care. [135]
• Stresses screening, counseling, and treatment, including options for individual and family therapy and medical therapy for co-morbid medical problems. [135]
• Recommends regular preventative healthcare services for adolescents to promote guidance, screening and counseling, and appropriate training and preparation for primary care clinicians to provide comprehensive preventative services.

American Medical Association (AMA)
• The Guidelines for Adolescent Preventive Services (GAPS) includes information, recommendations and tools for screening adolescent patients for mental illness and suicide. [136, 137]

12. ENHANCING CARE FOR ADOLESCENT DEPRESSION

BARRIERS TO OVERCOME
Severe shortage of mental health professionals trained to treat adolescents.
• Both primary care pediatricians (PCPs) and child psychiatrists agree that lack of mental health services is also a major barrier for PCPs – results in long waiting periods and poor follow through on referrals. [39,56]

Inadequate training in mental health issues.
• Nearly half lacked confidence in their skills to recognize adolescent depression. [55]
• And only about 1 in 10 was confident in their treatment skills. [55]
• Lack of training in the use of anti-depressant medications -- families and doctors reluctant to consider medication. [50,90]

Fragmented systems of care – lack of communication, sharing of information and resources, and transitioning care from one system to the next. [39]

Inadequate reimbursement for necessary services and to support care integration. [39,56]
• A 2009 study found that health insurance barriers, such as limited provider networks and administrative requirements, were a bigger problem than lack of coverage. [138]
• A 2009 AAP/AACAP paper highlighted the inadequacies in coverage for many mental health services that are or could be provided by pediatricians and family practitioners and the lack of incentives for multidisciplinary approaches. [139]

Variation in Benefit Structures [140]
• The large number of private plans and variations in state Medicaid programs create a complex array of benefit structures, regulations and mandates, resulting in considerable variability in mental health benefits.
• Managed care arrangements add to the confusion.
• Payers carve out mental health benefits often excluding primary care providers from the network who can deliver mental health services.
• Most plans fail to recognize the importance of collaborative and team efforts, thus do not reimburse integrative efforts.

RECOMMENDATIONS TO IMPROVE CARE
Implement the Guideline recommendations [1,2]
• Adopt and train in office systems and procedures -- screening, diagnosis, treatment, follow-up, liability, consent, confidentiality, billing, etc.
• Greater use of both antidepressants and psychotherapy.
• Linkages with mental health services.
Incorporation of the medical home concept into primary care: [39]

- Provides a framework for integration.
- Primary care becomes responsible for coordinating care, including consultations and referrals.
- Fosters the development of relationships with mental health resources.

More and better training materials to: [39]

- Assist in the difficult conversations around mental health.
- Teach interviewing techniques.
- Guide brief counseling.
- Learn adolescent depression psychotherapies (CBT, IPT).
- Tailor treatments for minority youth – same approach initially, but as obstacles arise, consideration of ethnic or cultural factors is appropriate. [101]

Systems to make care more efficient: [39]

- Web-based tools to support screening, scoring and resource identification.
- Electronic medical records to assist communication, decision support, clinical guidance, coordination of care.

Coverage reform: [39]

- Expand definitions of providers who can deliver reimbursable mental health services.
- Change policy that prohibits same day billing for physical and mental health services.
- Provide incentives rather than disincentives to increase collaborative arrangements.
- Better access and coverage for psychiatric consultative services.

13. STRATEGY FOR INTEGRATING MENTAL HEALTH SERVICES

Integrating mental health into primary care is an urgent concern, given the shortage of mental health providers and the extent of the problem. [39]

- Health plans have begun to recognize this need; a number of states are developing creative approaches for delivering mental health services for publicly-insured children.
- Many of these initiatives are outlined in the NIHCM paper “Strategies to Support the Integration of Mental Health into Pediatric Primary Care”. [39]

Two Key Steps

“Strategies to Support the Integration of Mental Health into Pediatric Primary Care” [39] provides two key steps that primary care practices can take to begin the process of enhancing their recognition and management of adolescent depression, as well as other childhood mental health problems:

1. Assessment of the current status and capabilities of the practice, and needs to enhance performance.
2. Deciding on the most appropriate model for providing mental health services.

1. ASSESSMENT OF PRACTICE [39]

I. Assess the service needs of the patient population:

- What is the patient profile (demographics, insurance status, family make-up, environmental factors, etc.)?
- How culturally/ethnically diverse is the population?
- Are there specific problems the practice is seeing?
- How extensive is the use of psychopharmacological treatments?
- What areas need extra emphasis?
- What do the answers to these questions imply for prevention, early intervention and treatment approaches?
II. Assess current practices, interests, capacity to address mental health needs:
   • How is the practice currently handling mental health needs of patients?
   • Is there an interest in expanding current services?
   • What is the skill and comfort level of the current providers?
   • Are there existing relationships with mental health providers?
   • What physical issues, such as space, are involved?
   • What new services could the practice support given its size and cost structure?
   • What infrastructure changes would be required to expand services or implement integration (technology, care coordination, privacy issues, etc.)?
   • How can the practice address family mental health issues that impact healthy childhood development?
   • How can high quality prevention and early intervention services in mental health be tailored to address diverse patient populations?
   • What issues need to be addressed with payers?

III. Identify external factors that will impact the approach taken:
   • How do current policies of the state and payers related to reimbursement, service requirements, and professional practice affect decisions about changes to the practice?
   • What are the current standards of care that need to be met?
   • What resources are available to support the practice (e.g., tools, training, etc.)?

2. DECIDING ON A MODEL FOR PROVIDING MENTAL HEALTH SERVICES [39]

Potential service models for providing mental health services fall into three broad categories: consultation, co-location and collaboration.
   • They are not mutually exclusive, but represent a continuum of service approaches that can be used in combination.
   • The model that is best for a practice depends on the needs of the practice.

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
<th>Benefits</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation</td>
<td>Mental health specialist available by phone or videoconferencing to provide guidance on medication management</td>
<td>Increased access to child psychiatrists and other specialists, Works well when there is a shortage of mental health specialists, Improved prescribing practices</td>
<td>Does not provide psychotherapy and evidence-based child mental health services</td>
</tr>
<tr>
<td></td>
<td>Referral to local mental health specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-Location</td>
<td>Primary care and mental health clinicians in same location</td>
<td>Can reduce wait for mental health services, May increase follow through with treatment</td>
<td>Does not guarantee collaboration or an integrated approach</td>
</tr>
<tr>
<td></td>
<td>May be independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborative and Integrated</td>
<td>Mental health clinicians on staff to assess and treat, provide phone consultations, follow-up</td>
<td>Enables primary care to provide full continuum of services, Financial sustainability of mental health staff</td>
<td>Billing complexities</td>
</tr>
<tr>
<td>Service</td>
<td>Integrated care for every encounter</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Models may be enhanced by several strategies that integrate staff across disciplines, increase the capacity of primary providers to treat mental health problems and enhance coordination of care across systems. Examples include:

- Cross training of mental health and primary care providers to enhance coordination and provide consistent management approaches.
- Use of standardized screening and assessment tools to improve early identification.
- Creating electronic medical records to share clinical information.
- Coordinating care across providers and systems via case management, preferred provider networks, and formal agreements for referrals and integrated care.

The “Strategies to Support the Integration of Mental Health into Pediatric Primary Care” [39] provides numerous examples of programs where these principles are being used.

The Youth-Partners-in-Care study
The Youth-Partners-in-Care study also offers a template for how a model of enhanced care can be integrated into a medical setting. [90]

- Quality improvement involved supplementing usual care with training and resources to encourage patients and clinicians to use CBT as a treatment option for depression.
- Adolescents in the quality-improvement arm were more likely than usual-care youth to receive psychotherapy, and to realize significant improvements.
- No between-group difference was found for pharmacological treatment.

14. RESOURCES

GUIDELINES
Guidelines for Adolescent Depression in Primary Care (GLAD–PC) Toolkit: [http://www.glad-pc.org/]

- Specific tools and/or templates to identify, monitor, track, and refer.
- Toolkit addresses how recommendations can be integrated without "reinventing the wheel."
- Screening/assessment instruments (i.e., Columbia Depression Scale).
- Information sheet on the developmental considerations in the diagnosis of depression.
- Assessment algorithm/flow sheet (Figure1).
- Fact sheet/family educational materials.
- Educational materials on suicide prevention/safety planning.

For patients and parents – sample materials:

- Treatment choices: Guide to active support, psychotherapy, and medication.
- Referral information.
- Authorization form to disclose information between Primary Care Provider (PCP) and mental health professional.
- Follow-up scripts for management.
- Fact sheet/family education materials.
- Self-management tools.

GLAD-PC Website – [http://www.glad-pc.org/].


FOR CLINICIANS
Guide to Mental Health Referrals: [http://www.glad-pc.org/]

- Referral process guidelines - Pages 96-101.
• Referral Form I: Completed by primary care provider, given to parent to give to mental health specialist – Page 99.
• Release of Protected Health Information form - Page 100.
• Report from Mental Health Practitioner to Primary Care Provider form – Page 101.
• Other forms and information available at: [http://www.glad-pc.org/]

TRAINING
For training related to the Guidelines for Adolescent Depression in Primary Care (GLAD–PC):
The REACH Institute – The Resource for Advancing Children’s Health

ASSESSMENTS
Patient Health Questionnaires-2 (PHQ-2) for screening:

Patient Health Questionnaire-9 (PHQ-9) – for screening of Major Depressive Disorder in Children and Adolescents, pages 49 - 79 in the Guidelines for Adolescent Depression – Primary Care Toolkit (GLAD-PC Toolkit) [http://www.glad-pc.org/].

Beck Depression Inventory II (BDI II): For screening of Major Depressive Disorder. A seven question survey, which requires purchase ahead of time.

Columbia Depression Scale (CDS):

OR


Depression Test for Children and Teenagers:
http://www.real-depression-help.com/depression-test-for-children.html

The TeenScreen National Center for Mental Health Checkups, Columbia University
• Offers free tools and materials to healthcare professionals to screen for depression and mental illness in adolescent patients: http://www.teenscreenregistry.org/

Web-based screening:
• The Child Health and Developmental Interaction System (CHADIS) diagnostic, management and tracking tool: www.chadis.com

CONFIDENTIALITY

ORGANIZATIONS
American Academy of Child and Adolescent Psychiatry:
http://www.aacap.org/cs/Depression.ResourceCenter

American Academy of Pediatrics (AAP) Bright Futures: www.brightfutures.aap.org
EDUCATION MATERIALS FOR ADOLESCENTS
From the Guidelines for Adolescent Depression in Primary Care (GLAD–PC) Toolkit pages 111-122: [http://www.glad-pc.org/]. Educational materials for the adolescent include:

• Depression information
• Medication information
• Antidepressant Medication and YOU (12-21)
• Psychological Counseling
• Patient handouts on Psychological Counseling
• Self-Management
• Self-Care Success
• Monitoring Sheet for Depression
• Depression Medication and Side Effects
• Mental Health and Drugs and Alcohol
• How Can You Help with Sleep Problems
• Suicide: What Should I Know?

EDUCATIONAL MATERIALS FOR PARENTS
From the Guidelines for Adolescent Depression in Primary Care (GLAD–PC) Toolkit pages 123-139 [http://www.glad-pc.org/]. Educational material for parents include:

• National Alliance on Mental Illness (NAMI) – A Family Guide.
• How You Can Help With Sleep Problems.
• Depression and the Family.

Suicide Prevention Action Network - Suicide prevention support for parents with suicidal adolescents: http://www.spanusa.org/

Improving Children's Mental Health Through Parent Empowerment: A Guide to Assisting Families by Peter S. Jensen and Kimberly Hoagwood

• Essential information for parents understanding mental health problems and navigating the mental health system.

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

RESOURCES TO PROMOTE CULTURALLY COMPETENT DIAGNOSIS
• “Cultural Competency, A Practical Guide for Mental Health Service Providers,” published by the Hogg Foundation for Mental Health at the University of Texas: [http://www.uscirefugees.org/2010Website/5_Resources/5_3_For_Service_Providers/5_3_3_Cultural_Comp etency/Hogg_Foundation_for_MentalHealth.pdf]
• New York City Department of Health and Mental Hygiene, provides links to a number of cultural competency resources grouped by age, race/ethnicity, religion, sexual orientation, and other categories:

15. REFERENCES


For other information and useful links, visit the American College of Preventive Medicine website at www.acpm.org.