Complete Summary

GUIDELINE TITLE

Practice parameters for the assessment and treatment of children and adolescents with depressive disorders.

BIBLIOGRAPHIC SOURCE(S)

Birmaher B, Brent D, AACAP Work Group on Quality Issues. Practice parameter for the assessment and treatment of children and adolescents with depressive disorders. Washington (DC): American Academy of Child and Adolescent Psychiatry (AACAP); 2007. 36 p. [181 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with depressive disorders. J Am Acad Child Adolesc Psychiatry 1998 Oct;37(10 Suppl):63S-83S.

** REGULATORY ALERT **

FDA WARNING/REGULATORY ALERT

Note from the National Guideline Clearinghouse: This guideline references a drug(s) for which important revised regulatory information has been released.

- May 2, 2007, Antidepressant drugs: Update to the existing black box warning on the prescribing information on all antidepressant medications to include warnings about the increased risks of suicidal thinking and behavior in young adults ages 18 to 24 years old during the first one to two months of treatment.

COMPLETE SUMMARY CONTENT

CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

SCOPE

DISEASE/CONDITION(S)

Major depressive disorder (MDD) and dysthymic disorder (DD)

GUIDELINE CATEGORY

Diagnosis
Evaluation
Prevention
Screening
Treatment

CLINICAL SPECIALTY

Family Practice
Pediatrics
Psychiatry

INTENDED USERS

Physicians
Psychologists/Non-physician Behavioral Health Clinicians
Social Workers

GUIDELINE OBJECTIVE(S)

To describe the epidemiology, clinical picture, differential diagnosis, course, risk factors, and pharmacological and psychotherapy treatments of children and adolescents with major depressive or dysthymic disorders

TARGET POPULATION

Children and adolescents with symptoms of a major depressive disorder or dysthymic disorder

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation/Screening

1. Screening for depressive symptoms using checklists derived from the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision (*DSM-IV-TR*)
2. Comprehensive evaluation including separate and/or conjoint initial interviews with the patient and his or her parents or caregivers, as well as, contacts with

other informants (e.g. teachers, primary care physicians, social service professionals, and peers.
3. Physical examination and laboratory tests
4. Global functioning assessment using scales such as the Children's Global Assessment Scale or the Global Assessment of Functioning.
5. Assessment for the presence of harm to self and others
6. Assessment of the patient's environment and family psychiatric history
7. Assessment for the presence of comorbid psychiatric and medical conditions

Management/Treatment/Prevention

1. Psychoeducation of patient and family about the disorder (causes, symptoms, different treatment choices)
2. Supportive management
3. Family and school involvement
4. Psychotherapy, such as cognitive-behavioral therapy (CBT) and interpersonal psychotherapy (IPT)
5. Pharmacotherapy, including the selective serotonin reuptake inhibitors (SSRIs)
6. Somatic treatments (e.g., antipsychotics, electroconvulsive therapy, bright light therapy) if indicated
7. Management of comorbid conditions
8. Maintenance therapy and frequent follow-up contacts
9. Early interventions, (e.g., lifestyle modifications) to prevent onset or recurrence of depression

MAJOR OUTCOMES CONSIDERED

- Response rate to therapeutic intervention
- Rate of remission
- Rate of recovery
- Rate of relapse
- Rate of recurrence, (recurrence defined as the emergence of symptoms of depression during the period of recovery [a new episode])
- Effect of treatment on psychosocial, academic and family functioning
- Side effects of treatment

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The list of references for this parameter was developed by searching *PsycINFO, MedLine,* and *Psychological Abstracts*; by reviewing the bibliographies of book chapters and review articles; by asking colleagues for suggested source materials; and from the previous version of this parameter (American Academy of Child and

Adolescent Psychiatry [AACAP], 1998), the recent American Psychiatric Association/AACAP guidelines "The Use of Medication in Treating Childhood and Adolescent Depression: Information for Physicians" published by ParentsMedGuide.org, the American Psychiatric Association guidelines for the treatment of adults with major depressive disorder (MDD), the Texas algorithms for the treatment of children and adolescents with MDD, and the National Institute of Health and Clinical Excellence (NICE) guidelines for the treatment of depressed youth. The searches, conducted in 2005, used the following text words: major depressive disorder, dysthymia, antidepressants, and psychotherapy (e.g., interpersonal, psychodynamic, and cognitive) combined with the word child. The searches covered the period 1990 to January 2007, and only articles that included depressive *disorders* were included. Given space limitations, the guideline developers mainly cited review articles published in refereed journals and added new relevant articles not included in the reviews.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

The strength of the empirical evidence is rated in descending order as follows:

[rct] - Randomized, controlled trial is applied to studies in which subjects are randomly assigned to two or more treatment conditions.

[ct] - Controlled trial is applied to studies in which subjects are nonrandomly assigned to two or more treatment conditions.

[ut] - Uncontrolled trial is applied to studies in which subjects are assigned to one treatment condition.

[cs] - Case series/report is applied to a case series or a case report.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The American Academy of Child and Adolescent Psychiatry (AACAP) develops both patient-oriented and clinician-oriented practice parameters. Patient-oriented parameters provide recommendations to guide clinicians toward the best treatment practices. Treatment recommendations are based both on empirical evidence and clinical consensus and are graded according to the strength of the empirical and clinical support (see the Rating Scheme for the Strength of the Evidence and the Rating Scheme for the Strength of the Recommendation" fields). Clinician-oriented parameters provide clinicians with the information (stated as principles) needed to develop practice-based skills. Although empirical evidence may be available to support certain principles, principles are primarily based on expert opinion and clinical experience.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Recommendations for best treatment practices are stated in accordance with the strength of the underlying empirical and/or clinical support, as follows:

[MS] *Minimal standard* is applied to recommendations that are based on rigorous empirical evidence (e.g., randomized, controlled trials) and/or overwhelming clinical consensus. Minimal standards apply more than 95% of the time (i.e., in almost all cases).

[CG] *Clinical guideline* is applied to recommendations that are based on empirical evidence (e.g., randomized, controlled trials) and/or strong clinical consensus. Clinical guidelines apply approximately 75% of the time (i.e., in most cases).

[OP] *Option* is applied to recommendations that are acceptable based on emerging empirical evidence (e.g., uncontrolled trials or case series/reports) or clinical opinion, but lack strong empirical evidence and/or strong clinical consensus.

[NE] *Not endorsed* applies to practices that are known to be ineffective or contraindicated.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This parameter was made available for review to the entire American Academy of Child and Adolescent Psychiatry (AACAP) membership in February and March 2006. From July 2006 to February 2007, this parameter was reviewed by a Consensus Group convened by the Work Group on Quality Issues.

This practice parameter was approved by the AACAP Council on June 1, 2007.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions of the strength of the empirical evidence ratings (**rct, ct, ut, cs**) and the strength of the empirical and/or clinical support ratings (**MS, CG, OP, NE**) are provided at the end of the "Major Recommendations" field.

Confidentiality

Recommendation 1. The clinician should maintain a confidential relationship with the child or adolescent while developing collaborative relationships with parents, medical providers, other mental health professionals, and appropriate school personnel [MS].

At the outset of the initial contact, the clinician should clarify with the patient and parents the boundaries of the confidential relationship that will be provided. The child's right to a confidential relationship is determined by law that varies by state. Each state has mandatory child abuse reporting requirements. Parents will expect information about the treatment plan, the safety plan, and progress toward goals of treatment. The child should expect that suicide or violence risk issues will be communicated to the parents. The clinician should request permission to communicate with medical providers, other mental health professionals involved in the treatment, and appropriate school personnel. Clinicians should provide a mechanism for parents to communicate concerns about deterioration in function and high-risk behaviors such as suicide threats or substance use.

Screening

Recommendation 2. The psychiatric assessment of children and adolescents should routinely include screening questions about depressive symptomatology [MS].

Clinicians should screen all children and adolescents for key depressive symptoms including depressive or sad mood, irritability, and anhedonia. 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 above and beyond what is expected for the chronological and psychological age of the child.

Evaluation

Recommendation 3. If the screening indicates significant depressive symptomatology, the clinician should perform a thorough evaluation to determine

the presence of depressive and other comorbid psychiatric and medical disorders [MS].

A comprehensive psychiatric diagnostic evaluation is the single most useful tool currently available to diagnose depressive disorders. The psychiatric assessment of depressed children and adolescents must be performed by a developmentally sensitive clinician who is able to achieve good rapport with children. For example, children may either have difficulties verbalizing their feelings or alternatively deny that they are depressed. Thus the clinician should also be attentive to observable manifestations of depression such as irritability, changes in sleep habits, decline in school performance, and withdrawal from previous pleasurable activities.

Clinicians should evaluate the child's and family's strengths. Also, the evaluation should be sensitive to ethnic, cultural, and religious characteristics of the child and her/his family that may influence the presentation, description, or interpretation of symptoms and the approach to treatment.

The evaluation should include direct interviews with the child and parents/caregivers and, ideally, with the adolescent alone. Also, whenever appropriate, other informants including teachers, primary care physicians, social services professionals, and peers should be interviewed. Subtypes of depressive disorders (seasonal, mania/hypomania, psychosis, subsyndromal, symptoms of depression), comorbid psychiatric disorders, medical illnesses, and (as indicated) physical examinations and laboratory tests are among the areas that should be evaluated.

Because of the prognostic and treatment implications, it is crucial to evaluate for the presence of lifetime manic or hypomanic symptoms.

The clinician, together with the child and parents, should evaluate the appropriate intensity and restrictiveness of care (e.g., hospitalization). The decision for the level of care will depend primarily on level of function and safety to self and others, which in turn are determined by the severity of depression, presence of suicidal and/or homicidal symptoms, psychosis, substance dependence, agitation, child's and parents' adherence to treatment, parental psychopathology, and family environment.

Recommendation 4. The evaluation must include assessment for the presence of harm to self or others [MS].

Because depression is closely associated with suicidal thoughts and behavior, it is imperative to evaluate these symptoms at the initial and subsequent assessments. For this purpose, low burden tools to track suicidal ideation and behavior such as the Columbia Suicidal Severity Rating Scale can be used. Also, it is crucial to evaluate the risk (e.g., age, sex, stressors, comorbid conditions, hopelessness, impulsivity) and protective factors (e.g., religious belief, concern not to hurt family) that might influence the desire to attempt suicide. Both current severity of suicidality and the most severe point of suicidality in episode and lifetime should be assessed. The presence of guns in the home should be ascertained, and the clinician should recommend that the parents secure or remove them.

Clinicians should also differentiate suicidal behavior from other types of self-harm behaviors, the goal of which is to relieve negative affect. This type of behavior most commonly involves repetitive self-cutting, with clear motivation to relieve anger, sadness, or loneliness rather than to end one's life.

Homicidal behavior follows a continuum similar to suicidality, from fleeting thoughts of homicide to ideas with a plan and intent. It is important to note that suicidal and homicidal ideation can occur in the same individual; fully one third of adolescent suicide victims in one study had homicidal ideation in the week before their suicide. The clinician should conduct an assessment similar to that described for suicidal ideation with regard to what factors are influencing, either positively or negatively, the degree of likelihood the patient will carry out a homicidal act. As is the case for patients at risk for suicidal behavior, it is important to restrict access to any lethal agents, particularly guns.

Recommendation 5. The evaluation should assess for the presence of ongoing or past exposure to negative events, the environment in which depression is developing, support, and family psychiatric history [MS].

Depression often results from an interaction between depressive diathesis and environmental stressors; thus the need for a careful evaluation of current and past stressors such as physical and sexual abuse, ongoing intra- and extra-familial conflicts, neglect, living in poor neighborhoods, and exposure to violence. If the abuse is current, ensuring the safety of the patient is the first priority of treatment. It is also important to assess the sequelae of the exposure to negative events such as post-traumatic stress disorder (PTSD).

Presence of family psychopathology should be evaluated to assist in both diagnosis and treatment, since parental psychopathology can affect the child's ability and willingness to participate in treatment, may be predictive of course (e.g., bipolar family history), and may have an influence on treatment response. The clinician should assess for discord, lack of attachment and support, and a controlling relationship (often referred to as "affectionless control"), as these can be related to risk for other psychiatric conditions such as substance abuse and conduct disorder that can complicate the presentation and course of depression. For further information regarding assessment of the family, refer to the National Guideline Clearinghouse (NGC) summary of the American Academy of Child and Adolescent Psychiatry (AACAP) Practice Parameter for the Assessment of the Family.

Treatment

Recommendation 6. The treatment of depressive disorders should always include an acute and continuation phase. Some children may also require maintenance treatment [MS].

The treatment of depression is usually divided into three phases: acute, continuation, and maintenance. The main goal of the acute phase is to achieve response and ultimately full symptomatic remission. (For definitions of outcome, see table below) Continuation treatment is required for all depressed youth to consolidate the response during the acute phase and avoid relapses. Finally,

maintenance treatment is used to avoid recurrences in some youth who have had a more severe, recurrent, and chronic disorder.

Table: Definitions of Outcome
Response: No symptoms or a significant reduction in depressive symptoms for at least 2 weeks **Remission**: A period of at least 2 weeks and less than 2 months with no or very few depressive symptoms **Recovery**: Absence of significant symptoms of depression (e.g., no more than 1-2 symptoms) for ≥2 **Relapse**: A DSM episode of depression during the period of remission **Recurrence**: The emergence of symptoms of depression during the period of recovery (a new episode)

The choice of treatment at each of these phases should be governed by factors such as the subject's age and cognitive development, severity and subtype of depression, chronicity, comorbid conditions, family psychiatric history, family and social environment, family and patient treatment preference and expectations, cultural issues, and availability of expertise in pharmacotherapy and/or psychotherapy.

Recommendation 7. Each phase of treatment should include psychoeducation, supportive management, and family and school involvement [MS].

Psychoeducation

Psychoeducation refers to education of family members and the patient about the causes, symptoms, course, and different treatments of depression and the risks associated with these treatments as well as no treatment at all. Education should make the treatment and decision-making process transparent and should enlist parent and patient as collaborators in their own care. Depression is presented as an illness, not a weakness, which is no one's fault but has genetic and environmental contributions. The difficulties the patient experiences in function are not manipulation, but the manifestations of an illness. The patient and family should be prepared for what is likely to be a recurrent and often chronic illness that may have a prolonged period of recovery. This enables the patient and family not to be overly disappointed if recovery is prolonged, and it prepares them for the necessity of continuation and adherence to treatment. Parents also need guidance about how to parent—when to be strict and when to be lax in light of their child's depression.

Written material and reliable web sites about depression and its treatment can help parents and their child to learn about depression and monitor the child's progress and, if the child is taking medications, potential emerging side effects.

Supportive Management

In addition to psychoeducation, all subjects require supportive psychotherapeutic management, which may include active listening and reflection, restoration of hope, problem solving, coping skills, and strategies for maintaining participation in treatment.

Family Involvement

Even in the absence of formal family therapy, it is virtually impossible to successfully treat a child or adolescent patient without the close involvement of parents. Firstly, the clinician has to recognize that motivation for treatment comes often from the parents, and so therefore the treatment contract must involve them. Secondly, the parents may observe aspects of the child's functioning or symptoms that the child either is not aware of or does not wish to share, and this information is vital to the development of a realistic and effective treatment contract. Thirdly, the parents are able to monitor their child's progress and serve as a safety net.

School Involvement

School personnel also need psychoeducation to help them understand the disease model of depression. Issues related to confidentiality also need to be discussed. The clinician, along with the family, should advocate for some accommodations (e.g., schedule, work load) to the patient's current difficulties until recovery has been achieved. However, if after recovery the child continues to have academic difficulties, then one should suspect that there is still some subsyndromal depression or that there are other comorbid conditions (e.g., developmental learning disorders, attention-deficit/hyperactivity disorder (ADHD), anxiety, substance abuse) or environmental factors that might explain the child's persistent difficulties.

Recommendation 8. Education, support, and case management appear to be sufficient treatment for the management of depressed children and adolescents with an uncomplicated or brief depression or with mild psychosocial impairment [CG].

It is reasonable, in a patient with a mild or brief depression, mild psychosocial impairment, and the absence of clinically significant suicidality or psychosis, to begin treatment with education, support, and case management related to environmental stressors in the family and school. It is expected to observe response after 4 to 6 weeks of supportive therapy.

Recommendation 9. For children and adolescents who do not respond to supportive psychotherapy or who have more complicated depressions, a trial with specific types of psychotherapy and/or antidepressants is indicated [CG].

Moderate depression may respond to cognitive-behavioral therapy (CBT) or interpersonal therapy (IPT) alone. More severe depressive episodes will generally require treatment with antidepressants. Treatment with antidepressants may be administered alone until the child is amenable to psychotherapy or if appropriate, it can be combined with psychotherapy from the beginning of treatment. Finally, depressed youth who do not respond to prior monotherapy treatment, either

psychotherapy or antidepressants, require a combination of these two treatment modalities.

In general, in addition to considering the severity and chronicity of the depressive symptoms, prior response to treatment, and other familial and environmental factors, the decision about which type of monotherapy to offer may be dictated by availability, patient and family preference.

Psychotherapy

While research studies try to isolate specific diagnostic entities for clinical trials, most cases in clinical practice have multiple factors necessitating a multimodal treatment approach including a combination of options such as CBT, IPT interventions, individual psychodynamic psychotherapy, family therapy school/learning interventions, and/or community consultation.

Pharmacotherapy

Clinical Use

Except for lower initial doses to avoid unwanted effects, the dosages of the antidepressants in children and adolescents are similar to those used for adult patients. However, some studies have reported that the half-lives of sertraline, citalopram, paroxetine, and bupropion SR are much shorter than reported in adults. Therefore, psychiatrists should be alert for the possibility of withdrawal side effects when these medications are prescribed once a day. Also, to avoid side effects and improve adherence to treatment, it is recommended to start with a low dosage and increase it slowly until appropriate dosages have been achieved. Patients should be treated with adequate and tolerable doses for at least 4 weeks. Clinical response should be assessed at 4-week intervals, and if the child has tolerated the antidepressant, the dosage may be increased if a complete response has not been obtained. At each step, adequate time should be allowed for clinical response, and frequent, early dose adjustments should be avoided. However, patients who are showing minimal or no response after 8 weeks of treatment are likely to need alternative treatments. Furthermore, by about 12 weeks of treatment, the goal should be remission of symptoms, and in youth who are not remitted by that time, alternative treatment options may be warranted. Other strategies for non-responders are described in Recommendation 15.

Given the small, but statistically significant, association between the antidepressants and suicidality, it is recommended that all patients receiving these medications be carefully monitored for suicidal thoughts and behavior, as well as other side effects thought to be possibly associated with increased suicidality, such as akathisia, irritability, withdrawal effects, sleep disruption, increased agitation, and induction of mania or a mixed state, particularly during the first weeks of treatment. The U.S. Food and Drug Administration (FDA) recommends that depressed youth should be seen every week for the first 4 weeks and biweekly thereafter. However, it is not always possible to schedule weekly face-to-face appointments. In this case, evaluations should be briefly carried out by phone, but it is important to emphasize that there is no data to suggest that the monitoring schedule proposed by the FDA or telephone calls have any impact on the risk of suicide. Monitoring is important for all patients, but

patients at increased risk for suicide (e.g., those with current or prior suicidality, impulsivity, substance abuse, history of sexual abuse, family history of suicide) should be scrutinized particularly closely. Those with a family history of bipolar disorder should be carefully monitored for onset of mania or mixed state. After the continuation or maintenance phases are over, or when the antidepressants need to be discontinued, all antidepressants, except for fluoxetine, should be discontinued slowly. Fluoxetine, because of its long half-life, is the exception and can be stopped at once.

Careful attention to possible medication interactions is recommended because most antidepressants inhibit, to varying degrees, the metabolism of several medications that are metabolized by the diverse clusters of hepatic cytochrome P450 isoenzymes.

Recommendation 10. To consolidate the response to the acute treatment and avoid relapses, treatment should always be continued for 6 to 12 months [MS].

Until further research becomes available, continuation therapy for at least 6 to 12 months is recommended for all patients who have responded to the acute treatment. Often, discontinuation can be tried during the summer, so that a relapse would be less disruptive to school function. However, it is important to note that the treatment for depression can also be helping other disorders (e.g., anxiety) and discontinuation may accelerate the symptoms of these other conditions. During the continuation phase, patients typically are seen at least monthly, depending on clinical status, functioning, support systems, environmental stressors, motivation for treatment, and the presence of comorbid psychiatric or medical disorders. In this phase, psychotherapy consolidates the skills learned during the acute phase and helps patients cope with the psychosocial sequelae of the depression, but also addresses the antecedents, contextual factors, environmental stressors, and internal as well as external conflicts that may contribute to a relapse. Moreover, if the patient is taking antidepressants, follow-up sessions should continue to foster medication adherence, optimize the dose, and evaluate for the presence of side effects.

Recommendation 11. To avoid recurrences, some depressed children and adolescents should be maintained in treatment for longer periods of time [CG].

MDD is a recurrent illness. Thus, once the child has been asymptomatic for approximately 6 to 12 months, the clinician must decide whether maintenance therapy is indicated, which therapy, and for how long. The main goal of the maintenance phase is to foster healthy growth and development and prevent recurrences. This phase may extend one year or longer and is typically conducted with visits at a frequency of monthly to quarterly, depending on the patient's clinical status, functioning, support systems, environmental stressors, motivation for treatment, existence of comorbid psychiatric/medical disorders, and availability and skill of the clinician.

There are no treatment studies of youth to guide clinicians as to which patients require a longer period of continuation and maintenance treatment. In adults, those with at least three episodes of recurrent depression require longer periods

of treatment (e.g., at least 3 to 5 years). One general rule of thumb is that the longer it takes for a patient to recover or the higher the number of recurrences, the longer the period of maintenance should be. Specifically, those patients with at least two episodes of depression, or one very severe or chronic episodes of depression, should have maintenance treatment for longer than 1 year. Those with double depression (depression with comorbid dysthymic disorder) who have been depressed "as long as they can remember" may need treatment indefinitely, with an explanation to families that there is no hard and fast rule about this because of a lack of studies in this population. Moreover, other factors that are related to risk for a prolonged episode or recurrence should also make the clinician consider maintenance treatments. These factors include patient factors of comorbidity, psychosis, suicidality, number of prior episodes, environmental factors such as family disruption due to conditions external to the child (e.g., divorce, illness, job loss, or homelessness), family psychopathology, and lack of community support.

Finally, it is important to treat the youth not only for a certain length of time, but to treat to achieve no or minimal residual symptoms, because children and adolescents who have not recovered fully and still have subsyndromal depression are more vulnerable to have a recurrence.

Recommendation 12. Depressed patients with psychosis, seasonal depression, and bipolar disorder may require specific somatic treatments [CG].

Psychotic Depression

Currently, clinical consensus recommends the atypical antipsychotic medications combined with selective serotonin reuptake inhibitors (SSRIs) as the treatment of choice for depressed psychotic youth. It is important to be aware of the short- and long-term side effects associated with the use of atypical antipsychotics and possible interactions with the antidepressants. How long these medications should be continued after the psychotic symptoms have improved is a question, but in general the recommendation is to slowly taper off these medications, with the eventual goal of keeping the child on monotherapy with an antidepressant.

In adults, electroconvulsive therapy (ECT) is particularly effective for this subtype of depression. Non-controlled reports suggest that this treatment also may be useful for depressed psychotic adolescents.

Seasonal Affective Disorder (SAD)

A small randomized controlled trial (RCT) showed that bright light therapy is efficacious for youth with SAD **[rct]**). It appears that patients may respond better during the morning hours, but morning hours may be difficult on school days and for youth who refuse to wake up early in the morning. Bright light therapy has been associated with some side effects, such as headaches and eye strain. Some authors have recommended an ophthalmological evaluation before initiating light therapy, but this practice has been frequently questioned unless patients have a history of eye illness. Treatment with light may induce episodes of hypomania or mania in vulnerable patients.

Bipolar Disorder

If indicators of risk for bipolar disorder are present (see Differential Diagnosis section in the original guideline document), the clinician should discuss with the patient and family the pros and cons of initiating a prophylactic mood-stabilizing agent. Patients with a psychotic depression may be at greater risk for developing bipolar disorder.

For mild to moderate unipolar depression in patients with a bipolar diathesis, it may be best to start with psychotherapy because the risk for manic conversion with the use of antidepressants is substantial. Also, if there is a strong suspicion that the child has bipolar disorder, a mood stabilizer, such as lithium carbonate, valproate, or lamotrigine may be indicated, particularly if the patient presents with a depressive disorder marked by mood lability.

Recommendation 13. Treatment should include the management of comorbid conditions [MS].

It is of prime importance to treat the comorbid conditions that frequently accompany MDD because these conditions may influence the initiation, maintenance, and recurrence of depression; reduce the probability of a complete treatment response; and increase the risk for suicide, other functional impairment in school, and problems with interpersonal relationships associated with MDD. Likewise, depressive symptoms also may negatively influence the treatment of comorbid disorders. Although there are very few studies to guide the clinician in how to sequence the treatment of depression and other comorbid disorders, the guideline developers suggest that the clinician make a determination of which condition is causing the greatest distress and functional impairment, and begin treatment with that disorder. Also, if recovery from depression is unlikely until a comorbid condition is addressed (e.g., severe malnutrition in anorexia, or severe substance dependence, such as cocaine or intravenous drug dependence), then the comorbid condition must be addressed first.

Recommendation 14. During all treatment phases, clinicians should arrange frequent follow-up contacts that allow sufficient time to monitor the subject's clinical status, environmental conditions, and, if appropriate, medication side effects [MS].

Symptoms of depression, suicidal or homicidal ideation, mania or hypomania; development of new comorbid disorders; psychosocial and academic functioning; and environmental conditions should be reviewed frequently by interviewing the child, parents, and, if appropriate, other informants (e.g., teachers).

An absolute final score on the Beck Depression Inventory ≤9 or Children's Depression Rating Scale ≤28 together with persistent improvement in patient's functioning for at least 2 weeks or longer may reflect a satisfactory response. Overall improvement has also been measured using a score of 1 or 2 (very much or much improvement) in the Clinical Global Impression Scale, Improvement subscale.

If a patient is being treated with medications, it is important to evaluate the adherence to medication treatment, presence of side effects, and youth and

parent beliefs about the medication benefits and its side effects that may contribute to poor adherence or premature discontinuation of treatment. History of suicidality, homicidal ideation, and somatic symptoms should be evaluated before starting the pharmacological treatment, and during treatment they should be differentiated from symptoms of mood and other psychiatric or medical conditions.

Recommendation 15. During all treatment phases, for a child or adolescent who is not responding to appropriate pharmacological and/or psychotherapeutic treatments, consider factors associated with poor response [MS].

When managing patients who are not responding to treatment, the following reasons for treatment failure should be considered: misdiagnosis, unrecognized or untreated comorbid psychiatric or medical disorders (e.g., anxiety, dysthymic, eating, substance use, personality, hypothyroidism), undetected bipolar disorder, inappropriate pharmacotherapy or psychotherapy, inadequate length of treatment or dosage, lack of adherence to treatment, medication side effects, exposure to chronic or severe life events (such as sexual abuse or ongoing family conflicts), personal identity issues (such as concern about same-sex attraction), cultural/ethnic factors, and an inadequate fit with, or skill level of, psychotherapist.

Several psychopharmacological strategies have been recommended for adults with resistant depression that may be applicable to youth: optimization (extending the initial medication trial and/or adjusting the dose; addition of CBT or IPT), switching to another agent in the same or a different class of medications, augmentation, or combination (e.g., lithium, triiodothyronine [T_3]). Optimization and augmentation strategies are usually used when patients have shown a partial response to the current regimen and switching is usually used when patients have not responded or cannot tolerate the medications, but no studies have validated these practices in children.

The use of somatic therapies that have not been well studied in children such as transcranial magnetic stimulation or more intensive somatic therapies for depressed teens such as ECT should be considered.

Each of the above-noted strategies requires implementation in a systematic fashion, education of the patient and family, and support and education to reduce the potential for the patient to become hopeless.

Prevention

Recommendation 16. Children with risk factors associated with development of depressive disorders should have access to early services interventions [CG].

The strategies for the prevention of onset or of recurrence of depression should include the amelioration of risk factors associated with this disorder. In addition, prevention may also include lifestyle modifications—regular and adequate sleep, exercise, a coping plan for stress (e.g., meditation, yoga, exercise, or social activities), pursuit of enjoyable and meaningful activities, and avoidance of

situations that are predictably stressful and nonproductive. For those with recurrent depression, a proactive plan to avoid stressors and a plan for coping with anticipated difficulties may be helpful in relapse and recurrence prevention.

It is also important to educate caregivers, school personnel, pediatricians, and youth about the warning signs of depressive disorder and appropriate sources of assessment and treatment.

Definitions:

Strength of the Empirical Evidence Ratings

[rct] - Randomized, controlled trial is applied to studies in which subjects are randomly assigned to two or more treatment conditions.

[ct] - Controlled trial is applied to studies in which subjects are nonrandomly assigned to two or more treatment conditions.

[ut] - Uncontrolled trial is applied to studies in which subjects are assigned to one treatment condition.

[cs] - Case series/report is applied to a case series or a case report.

Strength of the Empirical and/or Clinical Support Ratings

[MS] *Minimal standard* is applied to recommendations that are based on rigorous empirical evidence (e.g., randomized, controlled trials) and/or overwhelming clinical consensus. Minimal standards are expected to apply >95% of the time (i.e., in almost all cases).

[CG] *Clinical guideline* is applied to recommendations that are based on strong empirical evidence (e.g., non-randomized controlled trials) and/or strong clinical consensus. Clinical guidelines apply approximately 75% of the time (i.e., in most cases).

[OP] *Option* is applied to recommendations that are acceptable based on emerging empirical evidence (e.g., uncontrolled trials or case series/reports) or clinical opinion, but lack strong empirical evidence and/or strong clinical consensus.

[NE] *Not endorsed* is applied to practices that are known to be ineffective or contraindicated.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Early identification and effective treatment may reduce the impact of depression on the family, social, and academic functioning in youth and may reduce the risk for suicide, substance abuse, and persistence of depressive disorders into adulthood. Evidence-supported treatment interventions have emerged in psychotherapy and medication treatment of childhood depressive disorders that can guide clinicians to improve outcomes in this population.

POTENTIAL HARMS

Adverse Effects of Medications

- The side effects of the *selective serotonin reuptake inhibitors (SSRIs)* and other serotonergic and/or adrenergic reuptake inhibitors novel antidepressants appear to be similar, dose-dependent, and may subside with time. 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. Approximately 3% to 8% of youth, particularly children, also may show increased impulsivity, agitation, irritability, silliness, and "behavioral activation". These symptoms should be differentiated from mania or hypomania that may appear in children and adolescents with, or predisposed to develop, bipolar disorder.
- More rarely, the use of antidepressants has been associated with serotonin syndrome, increased predisposition for bleeding (e.g., easy bruising, epistaxis), and increased suicidality. Because of the risk of bleeding, patients treated with SSRIs and other antidepressants who are going to have surgery should inform their physicians, as they may wish to discontinue treatment during the preoperative period.
- *Venlafaxine* and perhaps other noradrenergic reuptake inhibitors may elevate the blood pressure and cause tachycardia. *Mirtazapine*, a serotonin and adrenergic receptor blocker, may increase appetite, weight, and somnolence. *Trazodone* should be used with caution in males because it can induce priapism. The use of non-long-acting preparations of *bupropion* was associated with seizures, particularly if the dosages were above 400 mg/day or if the dosages were increased rapidly, and possible if subjects had bulimia.
- All antidepressants, except for fluoxetine, should be discontinued slowly. Abrupt discontinuation of antidepressants may induce withdrawal symptoms, some of which may mimic a relapse or recurrence of a depressive episode (e.g., tiredness, irritability, and severe somatic symptoms). Sometimes withdrawal symptoms can be accompanied by worsening or emergent suicidal symptoms. The withdrawal symptoms can appear after as few as 6 to 8 weeks on the antidepressants and within 24 to 48 hours of discontinuation.
- Interactions of antidepressants with other serotonergic and/or noradrenergic medications, in particular monoamine oxidase inhibitors (MAOIs), may induce

the serotonergic syndrome, marked by agitation, confusion, and hyperthermia.

Bright Light Therapy

Bright light therapy has been associated with some side effects, such as headaches and eye strain. Treatment with light may induce episodes of hypomania or mania in vulnerable patients.

Refer to the original guideline document for more information on adverse effects of treatment.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

American Academy of Child and Adolescent Psychiatry (AACAP) practice parameters are developed to assist clinicians in psychiatric decision making. These parameters are not intended to define the standard of care, nor should they be deemed inclusive of all proper methods of care or exclusive of other methods of care directed at obtaining the desired results. The ultimate judgment regarding the care of a particular patient must be made by the clinician in light of all of the circumstances presented by the patient and his or her family, the diagnostic and treatment options available, and available resources.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Birmaher B, Brent D, AACAP Work Group on Quality Issues. Practice parameter for the assessment and treatment of children and adolescents with depressive disorders. Washington (DC): American Academy of Child and Adolescent Psychiatry (AACAP); 2007. 36 p. [181 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1998 (revised 2007)

GUIDELINE DEVELOPER(S)

American Academy of Child and Adolescent Psychiatry - Medical Specialty Society

SOURCE(S) OF FUNDING

American Academy of Child and Adolescent Psychiatry

GUIDELINE COMMITTEE

Work Group on Quality Issues

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

This parameter was developed by Boris Birmaher, MD and David Brent, MD, principal authors.

Work Group on Quality Issues Members: William Bernet, MD (Co-Chair); Oscar Bukstein, MD (Co-Chair); Heather Walter; R. Scott Benson, MD; Allan Chrisman, MD; Tiffany Farchione, MD; Laurence Greenhill, MD; John Hamilton, MD; Helene Keable, MD; Joan Kinlan, MD; Ulrich Schoettle, MD; Saundra Stock, MD

AACAP Staff: Kristin Kroeger Ptakowski; Jennifer Medicus

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Boris Birmaher, M.D., author, receives or has received research support from the National Institute of Mental Health, participates or has participated in fora for Solvay Pharmaceuticals Inc. and Abcomm, Inc., and receives royalties from Random House.

David Brent, M.D., author, has no financial relationships to disclose.

Oscar Bukstein, M.D., co-chair, receives or has received research support, acted as a consultant and/or served on a speaker's bureau for Cephalon, Inc., Forest Pharmaceuticals, Inc., McNeil Pediatrics, Shire Pharmaceuticals Group plc, Eli Lilly and Company, and Novartis Pharmaceuticals Corporation.

William Bernet, M.D. and Heather Walter, M.D., co-chairs, have no financial relationships to disclose.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with depressive disorders. J Am Acad Child Adolesc Psychiatry 1998 Oct;37(10 Suppl):63S-83S.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American Academy of Adolescent and Child Psychiatry (AACAP) Web site.

Print copies: Available from AACAP, Communications Dept., 3615 Wisconsin Ave, NW, Washington, DC 20016. Additional information can be obtained through the AACAP Publication Store for Parameters and Guidelines.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on February 6, 1999. The information was verified by the guideline developer on December 15, 1999. This NGC summary was updated by ECRI Institute on October 24, 2007.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx .

NGC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI Institute, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Date Modified: 11/3/2008