Summary of the Practice Parameter for the Assessment and Treatment of Children and Adolescents with Schizophrenia

ABSTRACT

This practice parameter reviews the literature on the assessment and treatment of children and adolescents with schizophrenia. Recommendations are based on the limited research available, the adult literature, and clinical experience. Early-onset schizophrenia is diagnosed using the same criteria as in adults, and appears to be continuous with the adult form of the disorder. Noted characteristics of youth with schizophrenia include predominance in males, high rates of premorbid abnormalities, and often poor outcome. Differential diagnosis includes psychotic mood disorders, developmental disorders, organic conditions, and nonpsychotic emotional/behavioral disorders. Treatment strategies incorporate antipsychotic medications with psychoeducational, psychotherapeutic, and social and educational support programs. The advent of atypical antipsychotic agents has enhanced the potential for effective treatment. Key Words: schizophrenia, children, adolescents, psychosis.

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The summary and full text of the Practice Parameters for the Assessment and Treatment of Children and Adolescents with Schizophrenia is available to Academy members on the World Wide Web (www.aacap.org) and appears in a future supplement to the JAACAP. The full text of these parameters was reviewed at the 1999 Annual Meeting of the American Academy of Child and Adolescent Psychiatry. Both the full text and this summary were approved by AACAP Council on June 6, 2000.

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INTRODUCTION

Schizophrenia is a neurodevelopmental disorder that is associated with deficits in cognition, affect and social functioning. Onset of the illness occurs rarely before the age of 13 years, but then increases steadily during adolescence. Accurate diagnosis and treatment requires familiarity with the clinical presentation, phenomenology and course of the disorder. Diagnostic assessment must also incorporate an understanding of the youth’s developmental, social, educational, and psychological needs. Treatment strategies should focus on alleviating symptoms, reducing long-term morbidity, and relapse prevention. Associated comorbid disorders and/or biopsychosocial stressors may also need to be addressed. Intervention
strategies also must be consistent with the developmental, social, and cultural aspects of the youth and his or her family.

**EXECUTIVE SUMMARY**

This summary provides an overview of the assessment and treatment recommendations contained in the Practice Parameters for the Assessment and Treatment of Children and Adolescents with Schizophrenia. This summary includes many of the most important points and recommendations that are in these practice guidelines. However, the treatment and assessment of children and adolescents with schizophrenia requires the consideration of many important factors that cannot be conveyed fully in a summary, and the reader is encouraged to review the entire document. Each recommendation in the executive summary is identified as falling into one of the following categories of endorsement, indicated by an abbreviation in brackets following the statement. These categories indicate the degree of importance or certainty of each recommendation.

[MS] "Minimal Standards" are recommendations that are based on substantial empirical evidence (such as well controlled, double-blind trials) or overwhelming clinical consensus or legal and regulatory requirements. Minimal standards are expected to apply more than 95 percent of the time, i.e., in almost all cases. When the practitioner does not follow this standard in a particular case, the medical record should indicate the reason.

[CG] "Clinical Guidelines" are recommendations that are based on empirical evidence (such as open trials, case studies) and/or strong clinical consensus. Clinical guidelines apply approximately 75 percent of the time. These practices should always be considered by the clinician, but there are exceptions to their application.

[OP] "Options" are practices that are acceptable, but not required. There may be insufficient empirical evidence to support recommending these practices as minimal standards or clinical guidelines. In some cases they may be indicated, but in other cases should be avoided. If possible, the practice parameter will explain the pros and cons of these options.

[NE] "Not Endorsed" refers to practices that are known to be ineffective or contraindicated.

The following recommendations should be considered in the assessment and treatment of schizophrenia in children and adolescents.

**ASSESSMENT**

**Psychiatric Assessment**

A comprehensive diagnostic assessment is needed [MS]. This should include, when possible, interviews with the both the child or adolescent and the family, plus a review of past records and any other available ancillary information. The assessment should include a detailed
evaluation of the psychotic symptoms that are required for the diagnosis. Issues to address include:

1. Symptom presentation;
2. Course of Illness;
3. Other pertinent symptoms and/or confounding factors, including any history of significant developmental problems, mood disorders or substance abuse;
4. Family psychiatric history, with a focus on psychotic illnesses; and
5. Mental Status Examination, including clinical evidence of psychotic symptoms and thought disorder.

Physical Assessment

General medical causes of psychotic symptoms should be ruled out [MS]. Potential organic conditions that need to be considered include acute intoxication, delirium, central nervous system lesions, tumors or infections, metabolic disorders, and seizure disorders. A thorough physical examination is needed. Other tests and procedures, such as neuroimaging, electroencephalographs, laboratory tests, and toxicology screens, should be ordered as indicated based on the history and physical examination. In addition, some laboratory testing, such as assessing renal or hepatic functioning, may also be indicated for monitoring potential adverse-effects of psychopharmacologic agents. Finally, some cases may require consultation with other medical specialties.

Psychological Assessment

Psychological testing, including personality and projective tests, is not indicated as a method of diagnosing schizophrenia. An intellectual assessment may be indicated when there is clinical evidence of developmental delays, since these deficits may influence the presentation and/or interpretation of symptoms [CG]. Cognitive testing also may be useful for assessing the degree of impairment associated with the illness, and to help guide treatment planning [OP].

Phases of Schizophrenia

In order to adequately diagnosis and treat individuals with schizophrenia, clinicians must be able to recognize the various phases of the disorder [MS]. These phases include:

Prodrome. Prior to developing overt psychotic symptoms, most individuals will experience some period of deteriorating function, which may include social isolation, idiosyncratic or bizarre preoccupations, unusual behaviors, academic problems and/or deteriorating self-care skills. However, while the presence of these problems should raise concerns, psychotic symptoms must be present before a diagnosis of schizophrenia can be made.

Acute Phase. This is the phase in which patients often present, and is dominated by positive psychotic symptoms (i.e., hallucinations, delusions, formal thought disorder, bizarre psychotic behavior) and functional deterioration. Recovery Phase. This follows the acute phase, as the active psychosis begins to remit. This phase often has some ongoing psychotic symptoms, and may also be associated with confusion, disorganization and/or dysphoria.
Residual Phase. During this phase, positive psychotic symptoms are minimal. However, patients will still generally have ongoing problems with "negative symptoms", i.e., social withdrawal, apathy, amotivation, and/or flat affect. Chronic Impairment. Some patients remain chronically impaired by persistent symptoms that have not responded adequately to treatment.

Psychiatric Formulation

A diagnosis of schizophrenia is made when the prerequisite DSM-IV (or ICD-10) symptoms are present for the required duration, and other disorders have been adequately ruled out [MS]. The differential diagnosis includes mood disorders (especially psychotic symptoms associated with mania or mixed episodes of bipolar disorder), pervasive developmental disorders, non-psychotic emotional and behavioral disturbances (including posttraumatic stress disorder), and organic conditions (including substance abuse). The formulation must also incorporate other clinically significant issues, such as developmental delays and child maltreatment. Once the diagnosis is established, it needs to be reassessed longitudinally as misdiagnosis at the time of onset is a common problem.

TREATMENT

Adequate treatment requires the combination of psychopharmacologic agents plus psychosocial interventions [MS]. Treatment strategies may vary depending on the phase of illness. Therapeutic recommendations are primarily based on the adult literature, since there is a lack of treatment research for youth with schizophrenia.

Psychopharmacology

Antipsychotic agents are recommended for the treatment of the psychotic symptoms associated with schizophrenia [MS]. First-line agents include traditional neuroleptic medications (block dopamine receptors), or the atypical antipsychotic agents (that have a variety of effects, including antagonism of serotonergic receptors). Compared to traditional agents, the atypical antipsychotics are at least as effective for positive symptoms, and may be more helpful for negative symptoms. Clozapine has documented efficacy for treatment-resistant schizophrenia in adults. However, clozapine is usually not considered a first-line agent due to its significant potential adverse effects, and is generally only used after therapeutic trials of at least two other antipsychotic medications (one or both of which should be an atypical agent) [MS].

The use of antipsychotic agents requires the following [MS]:

1. Adequate informed consent from the parent/youth (depending on the legal age requirements and/or legal status of the patient).
2. Documentation of target symptoms.
3. Documentation of any required baseline and follow-up laboratory monitoring, dependent on the agent being used.
4. Documentation of treatment response.
5. Documentation of suspected side-effects, including monitoring for known side-effects (e.g., extrapyramidal side-effects, weight gain, agranulocytosis and seizures with clozapine).

6. Adequate therapeutic trials, which generally require the use of sufficient dosages over 4 - 6 weeks.

7. Long-term monitoring to reassess dosage needs, dependent on the stage of illness. Higher dosages may be required during the acute phases, with smaller dosages during residual phases. The decision to lower dosages (which minimizes the side-effect risks), or undergo medication-free trials, must be balanced by the potential increased risk for relapse. In general, first-episode patients should receive some maintenance psychopharmacological treatment for one to two years after the initial episode, given the risk for relapse.

Some patients may benefit from the use of adjunctive agents, including antiparkinsonian agents, mood stabilizers, antidepressants or benzodiazepines [CG]. These medications are either used to address side-effects of the antipsychotic agent or to alleviate associated symptomatology (e.g., agitation, mood instability, dysphoria, explosive outbursts). Although commonly used, there are no studies that systematically address the use of adjunctive agents in juveniles.

**Psychosocial Interventions**

Psychosocial interventions are recommended [MS]:

1. Psychoeducational therapy for the patient, including ongoing education about the illness, treatment options, social skills training, relapse prevention, basic life skills training and problem solving skills strategies.

2. Psychoeducational therapy for the family to increase the understanding of the illness, treatment options, prognosis and developing strategies to cope with the symptoms of the patient.

Specialized educational programs and/or vocational training programs may be indicated for some child or adolescents to address the cognitive and functional deficits associated with the illness [CG]. Some individuals will require more intensive community support services, including day programs. Furthermore, there are some cases where the severity and chronicity of symptoms warrants long-term placement in a residential facility. However, efforts should always be made to maintain the child or adolescent in the least restrictive setting possible.

**Other Treatments**

In addition to those treatments provided specifically for schizophrenia, other interventions and services may be needed to address either comorbid conditions, or associated sequelae of the disorder, such as substance abuse, depression and suicidality [CG].
There are case-reports of electroconvulsive therapy (ECT) being used for youth with treatment refractory schizophrenia. However, ECT does not appear to be as effective for schizophrenia as it is for mood disorders. The use of ECT should be reserved for those cases where several trials of medication therapy (including a trial of clozapine) have failed. ECT may also be considered for catatonic states [OP].

REFERENCES