Based on Practice Guideline for the Treatment of Patients With Schizophrenia, originally published in April 1997. A revision of this practice guideline was begun in 2002 and is expected to be completed in 2004.
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Introduction

“Treating Schizophrenia: A Quick Reference Guide” is a summary and synopsis of the American Psychiatric Association’s Practice Guideline for the Treatment of Patients With Schizophrenia, which was originally published in The American Journal of Psychiatry in April 1997 and is available through American Psychiatric Publishing, Inc. (A revision of this Practice Guideline was begun in 2002 and is expected to be completed in 2004.) The Quick Reference Guide is not designed to stand on its own and should be used in conjunction with the full text of the Practice Guideline. Algorithms illustrating the treatment of schizophrenia are included.

Statement of Intent

The Practice Guidelines and the Quick Reference Guides are not intended to be construed or to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and practice patterns evolve. These parameters of practice should be considered guidelines only. Adherence to them will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgment regarding a particular clinical procedure or treatment plan must be made by the psychiatrist in light of the clinical data presented by the patient and the diagnostic and treatment options available.

The development of the APA Practice Guidelines and Quick Reference Guides has not been financially supported by any commercial organization.
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### A. Diagnosis and Assessment

- **Assess the patient’s symptoms, including all DSM-IV criteria for schizophrenia.**

- **Assess the patient’s clinical status, including**
  - potential for harm to self or others, particularly the presence of suicidal or homicidal ideation;
  - access to means for suicide or homicide and the lethality of those means;
  - the presence of command hallucinations; and
  - ability to adequately care for self.

- **Assess for the presence of comorbid mental disorders.**

- **Assess current alcohol and other substance use history.**

- **Assess current and past general medical conditions.**
  - Consider possible relationship between any general medical conditions or treatments and onset or exacerbation of psychotic symptoms.
  - Assess cardiac function, especially if the patient has existing or recent cardiac pathology (e.g., myocardial infarction or conduction abnormalities).
  - If needed, obtain a consultation with the patient’s general medical physician.

- **Assess past psychiatric history, including but not limited to**
  - previous episodes of psychotic symptoms,
  - dangerousness to self or others,
  - adherence to treatment,
  - previous treatment responses, and
  - prior alcohol or substance use disorders.
Assess psychosocial history, including but not limited to
- family and interpersonal relationships;
- social and cultural environment;
- living situation;
- academic and occupational functioning;
- financial issues;
- adequacy and availability of social supports;
- adequacy and availability of mental health, medical, and other service systems; and
- presence of psychosocial or emotional stressors that require attention.

Assess family psychiatric history.

B. Psychiatric Management and Ongoing Assessment

1. Components of Psychiatric Management

   Psychiatric management consists of a set of clinical management and supportive psychotherapy interventions that the psychiatrist should provide to all patients in each phase of treatment.

   Establish and maintain a therapeutic alliance.

   Provide support and education regarding schizophrenia and its treatments to patients and, when appropriate, to family members.

   Enhance adherence to treatment plans.
Increase the patient's understanding of and adaptation to psychosocial effects of having schizophrenia.

Help the patient and the family identify factors that precipitate, exacerbate, or prolong episodes, and promote early intervention to prevent relapse.

Assist with access to needed services.
• Work with team members, the patient, and the family to ensure that such services are coordinated.
• Make referrals for additional services when appropriate.
• Secure disability income support when indicated.

2. Ongoing Assessment and Monitoring

Monitor changes in psychiatric symptoms.

Monitor the patient’s danger to self and others.

Monitor changes in functional status, including the patient’s ability to care for self.
Whenever feasible, attempt to involve the patient and his or her family in treatment planning.

 Coordinate, consult with, and/or supervise other mental health professionals, using a team approach.

**2. Choice of Treatment Setting**

Weigh the risks and benefits of different settings. Settings include acute hospitalization, long-term hospitalization, day hospitalization, day treatment, supportive housing, crisis community residences, foster or family care, board-and-care homes, or nursing homes.

Take into account factors such as the following:
- Threat of harm to self or others
- Inability of the patient to care for self
- Use of the least restrictive environment that is clinically effective
- Need for particular treatments and ability of the patient to comply with these treatments
- Availability of social supports and treatment resources in the community

Consider involuntary admission for patients who refuse hospitalization. Specific requirements will vary by local jurisdiction.
3. Plan for Specific Pharmacological Treatments

**Conventional antipsychotic medications**
These medications are generally equally effective but differ in their potency, side effects, and available routes of administration.

**Risperidone, olanzapine, quetiapine, and ziprasidone**
These drugs have all been shown to be effective and may cause fewer extrapyramidal side effects.

**Clozapine**
Clozapine has been found to be effective in refractory patients and those unable to tolerate other antipsychotic medications. Because it can cause agranulocytosis, white blood cell (WBC) monitoring is essential. Check WBC count
• before initiation of clozapine treatment,
• at least every other week for the duration of treatment, and
• every other week for 4 weeks after termination of treatment.

**Adjunctive agents**
Other medications such as lithium, carbamazepine, valproic acid, benzodiazepines, or antidepressants are sometimes added as adjunctive agents to antipsychotic medication regimens.

**Electroconvulsive therapy**
Catatonic and treatment-resistant patients may be candidates for electroconvulsive therapy (ECT) when pharmacological treatments are not effective or are contraindicated. (See section D.1, p. 12, describing selection among pharmacological choices.)
## 4. Plan for Specific Psychosocial Interventions

<table>
<thead>
<tr>
<th>Individual therapy</th>
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<tbody>
<tr>
<td>• Individual therapies generally involve supportive, problem-solving approaches.</td>
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<tr>
<td>• Intensive exploratory techniques, particularly in the acute phase, should be avoided.</td>
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<table>
<thead>
<tr>
<th>Family interventions</th>
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<tbody>
<tr>
<td>• Participation in treatment by families and nonfamily caregivers should be encouraged when appropriate and can involve psychoeducation, enhancement of coping and problem solving, improving communication, stress reduction, and family support.</td>
</tr>
<tr>
<td>• Approaches that view the family as the cause of schizophrenia have been discredited and should not be used.</td>
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<table>
<thead>
<tr>
<th>Group therapy</th>
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<tbody>
<tr>
<td>• Group therapies for patients can involve psychoeducation, enhancement of problem solving, goal planning, social interactions, and management of medications and side effects.</td>
</tr>
<tr>
<td>• Excessive stress and overstimulation should be avoided through limit setting and structure.</td>
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<table>
<thead>
<tr>
<th>Early intervention programs</th>
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<tbody>
<tr>
<td>• Early intervention programs are designed to educate patients and their families about prodromal symptoms and encourage them to seek early intervention.</td>
</tr>
<tr>
<td>• When patients are experiencing prodromal symptoms, more frequent monitoring may be required.</td>
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</table>
Community interventions
Interventions designed to be supportive and to coordinate care in the community can include the following:

- *Case management programs* are frequently used to ensure that patients receive coordinated, continuous, and comprehensive services.
- *Programs for Assertive Community Treatment (PACT)* are individually tailored for the patient’s deficits and requirements and consist of both case management and active intervention by a treatment team based in the community.
- *Fairweather Lodge programs* are designed to help transition patients from the hospital to a supervised community residence and ultimately to autonomy.
- *Psychosocial clubhouses* are therapeutic communities that provide patients with recreational, vocational, and residential resources.

Rehabilitation
Several interventions are designed to improve the social, vocational, educational, and familial functioning of patients:

- *Social skills training programs* employ behavioral techniques or learning activities that enable patients to acquire interpersonal, self-care, and coping skills.
- *Vocational rehabilitation* may consist of prevocational training, vocational counseling and education, sheltered workshops, supported employment, or transitional supported employment. Vocational rehabilitation efforts should focus mainly on stable patients living in the community and should be tailored to avoid both under- and overexpectations.

Self-help groups
Patients and families should be informed about the existence of consumer organizations, including patient organizations, self-help treatment organizations, and family organizations.
D. Treatment in the Acute Phase

1. Pharmacological Treatment

Select an antipsychotic agent.
- An antipsychotic medication is indicated for nearly all acute psychotic episodes in patients with schizophrenia.
- Choice of an antipsychotic medication can be made according to factors such as the adequacy of response, side effects, past history of response, and patient preferences (see Figure 1, p. 13).
- For agitated patients, it may be preferable to use a high-potency agent that is available as a short-acting intramuscular injection.

Use dosages of typical antipsychotic medication in the range of 300 to 1,000 mg/day of chlorpromazine or the equivalent (CPZ equiv mg/day).
For example, use 4 to 6 mg of risperidone or 10 to 20 mg of olanzapine.

Do not use “rapid neuroleptization” (i.e., massive loading doses).
This method is not effective and carries the risk of adverse effects.

Treat comorbid conditions.
Conditions that should be addressed during the acute phase of treatment include comorbid psychiatric disorders, alcohol and/or substance use disorders, and general medical conditions.
FIGURE 1. Pharmacological Treatment of Schizophrenia in the Acute Phase

**Group 1:** Conventional antipsychotic medications

**Group 2:** Atypical antipsychotic medications
  (risperidone, olanzapine, quetiapine, ziprasidone)

**Group 3:** Clozapine

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Choose medication from group 1 or 2

- Yes: Adequate response without intolerable side effects?
  - Yes: Continue.
  - No: Inadequate response of positive symptoms
    - Choose different medication from group 1 or 2. Consider group 2 if extrapyramidal side effects, tardive dyskinesia, or increased prolactin are problematic.

- No: Choose different medication from group 2 or 3.

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Choose different medication from group 1 or 2.

- Yes: Adequate response without intolerable side effects?
  - Yes: Continue.
  - No: Inadequate response of positive symptoms
    - Choose different medication from group 2 or 3.

---

Choose different medication from group 2 or 3.

- Yes: Adequate response without intolerable side effects?
  - Yes: Continue.
  - No: Inadequate response of positive symptoms
    - Choose different medication from group 2 or 3.

---

Choose different medication from group 1, 2, or 3.

- Yes: Adequate response without intolerable side effects?
  - Yes: Continue.
  - No: Inadequate response of positive symptoms
    - Choose different medication from group 1, 2, or 3. Consider ECT. Consider recommendations for treatment-resistant patients.
Consider prophylactic treatment of side effects.
The prophylactic use of antiparkinsonian medications should be considered for patients who are using antipsychotic medications with a high propensity to cause extrapyramidal side effects, who have a history or high risk of problematic extrapyramidal symptoms (this is especially true for young males), or who prefer prophylactic treatment.

2. Psychosocial Interventions

- Reduce overstimulating and stressful situations, environments, or life events.
- Provide support and structure.
- Make communications and expectations simple and clear.
- Provide the patient and his or her family with information on the nature and management of the illness when appropriate.
- Encourage the patient and his or her family to collaborate in treatment planning and implementation when appropriate.
- Provide care in the least restrictive setting possible that will also be safe, secure, and clinically effective.
E. Modification and Refinement for Inadequate Response

1. Identify and Correct Reasons for Inadequate Response

- Assess adherence to treatment.

- Consider checking serum levels. Serum levels can establish whether nonadherence or abnormal absorption or metabolism are contributors to an inadequate response.

- Assess for clinically significant medication side effects that may influence adherence.
  - For intolerable side effects, the psychiatrist should consider initiating side-effect–specific treatments, such as antiparkinsonian medications.
  - The psychiatrist may simply monitor side effects in patients who are able to tolerate them.

2. Consider Specific Alterations to Treatment Plans

- Consider changing the antipsychotic medication, dose, schedule, or class (see Figure 1, p. 13).

- Consider clozapine for patients with inadequate response to or intolerable side effects from two or more antipsychotic medications of different classes (see Figure 1, p. 13).

- Consider ECT for treatment-resistant patients (see Figure 1, p. 13).
F. Treatment in the Stabilization Phase

1. Pharmacological Treatment

- Continue the antipsychotic medication regimen and dosage for at least 6 months following remission.

2. Psychosocial and Psychotherapeutic Interventions

- Provide interventions that are supportive but less structured and directive than in the acute phase.
- Involve the patient’s family members when appropriate.
- Provide education regarding course and outcome.
- Provide instruction in medication and symptom self-management.
- Encourage treatment adherence.
- Identify relapse warning signs.
- Assist the patient in adjusting to life in the community.
### G. Treatment in the Stable Phase

#### 1. Pharmacological Treatment

<table>
<thead>
<tr>
<th>Action</th>
<th>Details</th>
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<tbody>
<tr>
<td>Maintain conventional antipsychotic medication dosage between 300 and 600 CPZ equiv mg/day.</td>
<td>This dosage range may provide the best balance between minimizing side effects, improving adherence, and decreasing the risk of relapse.</td>
</tr>
<tr>
<td>Consider the atypical antipsychotic medications for inpatients who experience extrapyramidal side effects while taking conventional antipsychotics.</td>
<td></td>
</tr>
<tr>
<td>Consider long-acting depot antipsychotic medications for patients with a history of poor adherence.</td>
<td></td>
</tr>
<tr>
<td>Consider early intervention with higher antipsychotic medication doses for prodromal symptoms.</td>
<td></td>
</tr>
<tr>
<td>Consider antipsychotic medication discontinuation only for patients with</td>
<td>• at least 1 year of no symptoms following a single episode, or&lt;br&gt;• at least 5 years of no symptoms following multiple episodes.</td>
</tr>
<tr>
<td>Minimize the risk of relapse during antipsychotic medication discontinuation by taking precautions such as</td>
<td>• gradual reduction;&lt;br&gt;• more frequent visits; and&lt;br&gt;• development of early intervention strategies for the patient, the family, and other supporters.</td>
</tr>
</tbody>
</table>
2. Psychosocial and Community Interventions

- Tailor therapies to the patient’s clinical status and level of functioning. Goals for individual or group therapies may become more complex and ambitious for patients with few symptoms and greater stress tolerance.

- Involve the patient’s family on an ongoing basis when appropriate.

- Consider basic living skills training, social skills training, cognitive rehabilitation, and vocational rehabilitation for appropriate patients.

- Educate the patient and his or her family to monitor for prodromal symptoms.

- Promote early intervention and increased treatment intensity for prodromal symptoms.