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Treatment of Schizophrenia 1999

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CLINICAL PSYCHIATRY

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SUPPLEMENT

The Expert Consensus Guideline Series

TREATMENT OF SCHIZOPHRENIA 1999

EDITORS FOR THE GUIDELINES

Joseph P. McEvoy, Patricia L. Scheifler, and Allen Frances

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Expert Consensus Guideline Series

Treatment of Schizophrenia 1999

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Disclaimer:

Any set of guidelines can provide only general suggestions for clinical practice and practitioners must use their own clinical judgment in treating and addressing the needs of each individual patient, taking into account that patient's unique clinical situation. There is no representation of the appropriateness or validity of these guideline recommendations for any given patient. The developers of the guidelines disclaim all liability and cannot be held responsible for any problems that may arise from their use.

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The Expert Consensus Panels for Schizophrenia

The recommendations in the guidelines are derived form the statistically aggregated opinions of the groups of experts and do not necessarily reflect the opinion of each individual expert on each question.

Medication Experts

The following participants in the Medication Expert Consensus Survey were identified from several sources: recent research publications and funded grants, the DSM-IV advisers for psychotic disorders, the Task Force for the American Psychiatric Association's Practice Guideline for the Treatment of Patients with Schizophrenia, and those who have worked on the Patient Outcomes Research Team (PORT) guidelines. Of the 62 experts to whom we sent the schizophrenia medication survey, 57 (92%) replied.

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Policy Experts

We surveyed 46 academic experts, 53 state mental health commissioners, 63 state medical directors, 100 state Medicaid officials, and 51 representatives from chapters of the National Alliance for the Mentally Ill on a series of important and unresolved public policy issues concerning the organization and financing of care for persons with schizophrenia. We received completed surveys from 42 of the academic experts (91%), 26 state mental health commissioners (49%), 43 state medical directors (68%), 35 state Medicaid officials (35%), and 39 NAMI representatives (76%).

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Introduction

How often have you wished that you had an expert on hand to advise you on how best to help a patient who is not responding well to treatment or is having a serious complication? Unfortunately, of course, an expert is usually not at hand, and even if a consultation were available, how would you know that any one expert opinion represents the best judgment of our entire field? This is precisely why we began the Expert Consensus Guidelines Series. Our practical clinical guidelines for treating the major mental disorders are based on a wide survey of the best expert opinion. They are meant to be of immediate help to you in your everyday clinical work. Let's begin by asking and answering four questions that will help put our effort in context.

How do these Expert Consensus Guidelines relate to (and differ from) the other guidelines for schizophrenia that are already available in the literature?

Each of our guidelines builds upon existing guidelines but goes beyond them in a number of ways:

1. We focus our questions on the most specific and crucial treatment decisions for which detailed recommendations are usually not made in the more generic guidelines that are currently available.
2. We survey the opinions of a large number of the leading experts in each field and have achieved a remarkably high rate of survey response (over 90% for these schizophrenia guidelines), ensuring that our recommendations are authoritative and represent the best in current expert opinion.
3. We report the experts' responses to each question in a detailed and quantified way (but one that is easy to understand) so that you can evaluate the relative strength of expert opinion supporting the guideline recommendations.
4. The guidelines are presented in a simple format. It is easy to find where each patient's problem fits in and what the experts would suggest you do next.
5. To ensure the widest possible implementation of each of the guidelines, we are undertaking a number of educational activities and research projects, consulting with policy makers in the public sector and in managed care, and maintaining a web page (www.psychguides.com).

Why should we base current treatment decisions on expert consensus instead of the relevant treatment studies in the research literature and evidence-based guidelines?

There are three reasons why expert consensus remains an important addition:

1. Most research studies are difficult to generalize to everyday clinical practice. The typical patient who causes us the most concern usually presents with comorbid disorders, has not responded to previous treatment efforts, and/or requires a number of different treatments delivered in combination or sequentially. Such individuals are almost universally excluded from clinical trials. We need practice guidelines for help with those patients who would not meet the narrow selection criteria used in most research studies.
2. The available controlled research studies do not, and cannot possibly, address all the variations and contingencies that arise in clinical practice. Expert-generated guidelines are needed because clinical practice is so complicated that it is constantly generating far too many questions for the clinical research literature to ever answer comprehensively with systematic studies.
3. Changes in the accepted best clinical practice often occur at a much faster rate than the necessarily slower-paced research efforts that would eventually provide scientific documentation for the change. As new treatments become available, clinicians often find them to be superior for indications that go beyond the narrower indications supported by the available controlled research.

For all these reasons, the aggregation of expert opinion is a crucial bridge between the clinical research literature and clinical practice.

How valid are the expert opinions provided in these guidelines, and how much can I trust the recommendations?

We should be better able to answer this question when our current research projects on guideline implementation are completed. For now, the honest answer is that we simply don't know. Expert opinion must always be subject to the corrections provided by the advance of science. Moreover, precisely because we asked the experts about the most difficult questions facing you in clinical practice, many of their recommendations must inevitably be based on incomplete research information and may have to be revised as we learn more. Despite this, the aggregation of the universe of expert opinion is often the best tool we have to develop guideline recommendations. Certainly the quantification of the opinions of a large number of experts is likely to be much more trustworthy than the opinions of any small group of experts or of any single person.

Why should I use treatment guidelines?

First, no matter how skillful or artful any of us may be, there are frequent occasions when we feel the need for expert guidance and external validation of our clinical experience. Second, our field is becoming standardized at an ever more rapid pace. The only question is, who will be setting the standards? We believe that practice guidelines should be based on the very best in clinical and research opinion. Otherwise, they will be dominated by other less clinical and less scientific goals (e.g., pure cost reduction, bureaucratic simplicity). Third, it should be of some comfort to anyone concerned about losing clinical art under the avalanche of guidelines that the complex specificity of clinical practice will always require close attention to the individual clinical situation. Guidelines can provide useful information but are never a substitute for good clinical judgment and common sense.

Our guidelines are already being used throughout the country and seem to be helpful not only to clinicians but also to policy makers, administrators, case managers, mental health educators, patient advocates, and clinical and health services researchers. Ultimately, of course, the purpose of this whole enterprise is to do whatever we can to improve the lives of our patients. It is our hope that the expert advice provided in these guidelines will make our treatments ever more specific and effective.

Allen Frances, M.D.

How to Use the Guidelines

WHY A REVISION?

When we published the first *Expert Consensus Guidelines for the Treatment of Schizophrenia*[1] in 1996, we were aware that new research and the introduction of new treatments would quickly make them obsolete. We therefore planned to revise the guidelines regularly at periodic intervals to ensure that they would stay up-to-date. The 1999 *Guidelines* are based on new surveys of 57 experts on the medication treatment and 62 experts on the psychosocial treatment of schizophrenia. The *Guidelines* include recommendations for medications that were not available in 1996; we have also greatly expanded our coverage of psychosocial interventions. Finally, the 1999 *Guidelines* also incorporate the results of a third survey of 185 experts on the important policy, financing, and administrative issues that greatly influence the clinical care of individuals with schizophrenia. We thank all the experts who gave of their time and expertise in participating in the surveys.

We also circulated the draft surveys and guidelines for peer review to our editorial board members. We greatly appreciate their careful reading and many thoughtful suggestions that helped to make the guidelines more clinically useful.

METHOD OF DEVELOPING EXPERT CONSENSUS GUIDELINES

Creating the Surveys

We first created a skeleton algorithm based on the existing research literature and published guidelines to identify key decision points in the everyday treatment of patients with schizophrenia. We highlighted important clinical questions that had not yet been adequately addressed or definitely answered.[2,3] We then developed three written questionnaires concerning medication treatments, psychosocial treatments, and policy issues.

The Rating Scale

The survey questionnaires used a 9-point scale slightly modified from a format developed by the RAND Corporation for ascertaining expert consensus.[4] We presented the rating scale to the experts with the following instructions:

Extremely Inappropriate **1 2 3 4 5 6 7 8 9** Extremely Appropriate

- 9 = extremely appropriate: this is your treatment of choice
- 7–8 = usually appropriate: a 1st line treatment you would often use
- 4–6 = equivocal: a 2nd line you would sometimes use (e.g., patient/family preference or if 1st line treatment is ineffective, unavailable, or unsuitable)
- 2–3 = usually inappropriate: a treatment you would rarely use
- 1 = extremely inappropriate: a treatment you would never use

Here is Medication Survey Question 1 as an example of our question format.

1. Please rate the appropriateness of each of the following as initial pharmacological treatment for a patient with ***a first episode*** of schizophrenia with predominantly ***positive*** psychopathology:

Conventional antipsychotic (e.g., haloperidol, perphenazine)	1	2	3	4	5	6	7	8	9
Newer atypical antipsychotic (e.g., olanzapine, quetiapine, risperidone, ziprasidone)	1	2	3	4	5	6	7	8	9
Clozapine	1	2	3	4	5	6	7	8	9
Oral fluphenazine or haloperidol with intention to convert to long-acting depot antipsychotic (e.g., haloperidol decanoate)	1	2	3	4	5	6	7	8	9

Analyzing and Presenting the Results

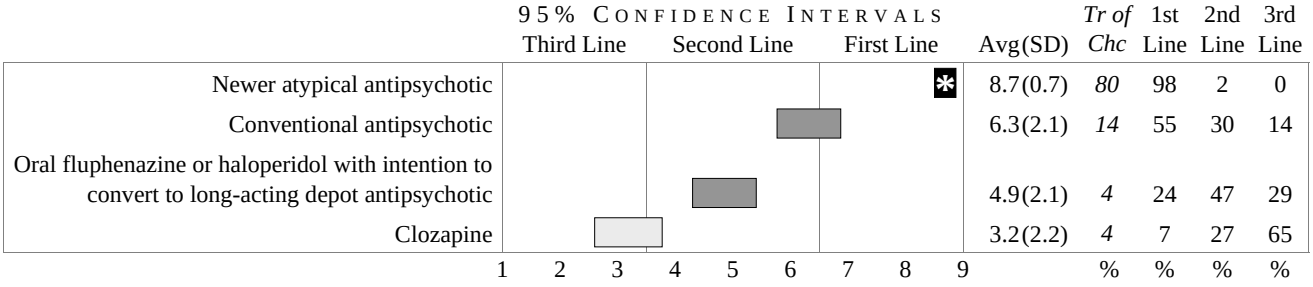
The results of Medication Survey Question 1 are presented graphically on the next page. The confidence intervals for each treatment option are shown as horizontal bars and the numerical values are given in the table on the right. In analyzing the results of the survey questions, we first calculated the mean (Avg), standard deviation (SD), and confidence interval (CI) for each item. The CI is a statistically calculated range which tells you that there is a 95% chance that the mean score would fall within that range if the survey were repeated with a similar group of experts. We designated a rating of first, second, or third line for each treatment option, determined by the category into which the 95% CI of its mean score fell.

The actual questions and results of the medication and psychosocial treatment surveys are presented in the second half of this publication (pp. 34–72). The policy survey questions and results are available from the editors upon request. For a more detailed discussion of how to read the survey results, see page 34.

The Ratings

First line treatments are those strategies that came out on top when the experts responses to the survey were statistically aggregated. These are options that the panel feels are usually appropriate as initial treatment for a given situation. Treatment of choice, when it appears, is an especially strong first line recommendation (having been rated as "9" by at least half the experts). Treatments of choice are indicated with a star in the survey results graphic. In choosing between several first line recommendations, or deciding whether to use a first line treatment at all, clinicians should consider the overall clinical situation, including the patient's prior response to treatment, side effects, general medical problems, and patient preferences.

1 Please rate the appropriateness of each of the following as initial pharmacological treatment for a patient with ***a first episode*** of schizophrenia with predominantly ***positive*** psychopathology.



Second line treatments are reasonable choices for patients who cannot tolerate or do not respond to the first line choices. Alternatively, you might select a second line choice as your initial treatment if the first line options are deemed unsuitable for a particular patient (e.g., because of poor previous response, inconvenient dosing regimen, particularly annoying side effects, a general medical contraindication, a potential drug-drug interaction, or if the experts don't agree on a first line treatment).

For some questions, second line ratings dominated, especially when the experts did not reach any consensus on first line options. In such cases, to differentiate within the pack, we label those items whose confidence intervals overlap with the first line category as "high second line."

Third line treatments are usually inappropriate or used only when preferred alternatives have not been effective.

From Survey Results to Guidelines

After the survey results were analyzed and ratings assigned, the next step was to turn these recommendations into user-friendly guidelines. For example, the results of the question presented above are shown on p. 35 and are used in *Guideline 1: Initial Treatment for an Acute Episode* (p. 12). Newer atypical antipsychotics appear as the treatment of choice for first episode schizophrenia with predominantly positive symptoms (treatments of choice are indicated by bold italics in the guidelines), while conventional antipsychotics are a high second line option. Based on the results of Survey Question 2 (see p. 35), newer atypical antipsychotics are also the treatment of choice for first episode schizophrenia with both prominent positive and negative symptoms. Whenever the guideline gives more than one treatment in a rating category, we list them in the order of their mean scores.

LIMITATIONS AND ADVANTAGES OF THE GUIDELINES

These guidelines can be viewed as an expert consultation, to be weighed in conjunction with other information and in the context of each individual patient-physician relationship. The recommendations do not replace clinical judgment, which must be tailored to the particular needs of each clinical situation. We describe groups of patients and make suggestions intended to apply to the average patient in each group. ***However, individual patients will differ greatly in their treatment preferences and capacities, their history of response to previous treatments, their family history of treatment response, and their tolerance for different side effects. Therefore, the experts' first line recommendations will certainly not be appropriate in all circumstances.***

We remind readers of several other limitations of these guidelines:

1. The guidelines are based on a synthesis of the opinions of a large group of experts. From question to question, some of the individual experts would differ with the consensus view.
2. We have relied on expert opinion precisely because we are asking crucial questions that are not yet well answered by the literature. One thing that the history of medicine teaches us is that expert opinion at any given time can be very wrong. Accumulating research will ultimately reveal better and clearer answers. Clinicians should therefore stay abreast of the literature for developments that would make at least some of our recommendations obsolete. We will continue to revise the guidelines periodically based on new research information and on reassessment of expert opinion to keep them up-to-date.
3. The guidelines are financially sponsored by the pharmaceutical industry, which could possibly introduce biases. Because of this, we have made every step in guideline development transparent, report all results, and take little or no editorial liberty.
4. These guidelines are comprehensive but not exhaustive; because of the nature of our method, we omit some interesting topics on which we did not query the expert panel.

Despite these limitations, these guidelines represent a significant advance because of their specificity, ease of use, and the credibility that comes from achieving a very high response rate from a large sample of the leading experts in the field.

SUGGESTED TOUR

The best way to use these guidelines is first to read the Table of Contents to get an overview of how the document is organized. Next, read through the individual guidelines. Finally, you may find it fascinating to compare your opinions

with those of the experts on each of the questions; we strongly recommend that you use the detailed survey results presented in the second half of this publication in this way.

The guidelines are organized so that clinicians can quickly locate the experts' treatment recommendations. The recommendations are presented in 19 easy-to-use tabular guidelines that are organized into four sections:

I. Strategies for Selecting Medications (pp. 12–19)
II. Strategies for Selecting Services (pp. 20–27)
III. Assessment Issues (pp. 28–29)
IV. Policy Issues (pp. 30–33)

The guidelines are followed by a summary of the results of the medication and psychosocial treatment surveys presented in a graphic format (pp. 34–72).

Finally, we include a patient-family educational handout (p. 73) that can be reproduced for distribution to families and patients. We gratefully acknowledge the National Alliance for the Mentally Ill for their help in developing these educational materials.

We assume clinicians using these guidelines are familiar with assessment and diagnostic issues as presented in DSM-IV[5] and other standard sources. We also encourage a thorough reading of other guidelines such as the American Psychiatric Association's *Practice Guideline for the Treatment of Patients with Schizophrenia*[6] and the schizophrenia PORT treatment recommendations.[7] Because our questionnaires could not cover every possible topic of interest, there are a few occasions when we added our own recommendations based on our reading of the other guidelines or the available literature. You can easily identify the expert consensus recommendations because they are always footnoted. Our own editorial additions are also clearly noted as such.

The data supporting the recommendations given in the guidelines are referenced by means of numbered notes on the guideline pages. These notes refer to specific questions and answers in the two expert surveys that were used to develop the guideline recommendations. In certain cases, the 1996 survey results provided clear and strongly supported recommendations on questions on which the experts' opinions are unlikely to have changed. In these situations, we reference the specific questions from the 1996 survey.[1]

Let's examine how a clinician might use the guidelines in selecting a treatment for a hypothetical patient hospitalized for a first episode of schizophrenia with predominantly positive symptoms. In the table of contents, the clinician locates *Part I, Strategies for Selecting Medications*, and then goes to *Guideline 1: Initial Treatment for an Acute Episode* (p. 12), which discusses selecting initial treatment for a first episode. Our interpretation of the guideline would be to recommend starting treatment with one of the newer atypical antipsychotics. If the patient fails to respond to treatment with the first antipsychotic, the clinician would then refer to *Guideline 2: A Patient with an Inadequate Response to Initial Treatment.*

No set of guidelines can ever improve practice if read just once. These guidelines are meant to be used in an ongoing way, since each patient's status and phase of illness will require different interventions at different times. Locate your patient's problem or your question about treatment in the Table of Contents and compare your plan with the guideline recommendations. We believe the guideline recommendations will reinforce your best judgment when you are in familiar territory and help you with new suggestions when you are in a quandary.

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I. STRATEGIES FOR SELECTING MEDICATIONS

Expert opinion has changed dramatically since our last survey in 1996, when the experts still considered conventional antipsychotics to be a first line treatment for schizophrenia in many clinical situations. The experts now strongly recommend the newer atypical antipsychotics as the first line treatment for schizophrenia in most clinical situations. Conventional antipsychotics now have only three indications: 1) for stable patients who have had a good response to them without major side effects,[1] 2) for patients who require IM medication (not yet available for the atypicals),[1] and 3) for the acute management of aggression/violence in some patients, especially those needing depot medication.[2] Clozapine should be used for patients who have not responded to sequential trials of newer atypical and conventional antipsychotics.[3] In all other situations, newer atypical antipsychotics are now clearly preferred.[3]

Guideline 1: Initial Treatment for an Acute Episode[3]

(***Bold italics*** = treatment of choice)

For a first episode patient with predominantly positive symptoms	***Newer atypical antipsychotic***
For a first episode patient with both prominent positive and negative symptoms	***Newer atypical antipsychotic***
For a patient who has a breakthrough episode despite good compliance with a conventional antipsychotic	***Switch to a newer atypical antipsychotic***
For a patient who is noncompliant with oral medication or has persistent denial of illness	***Switch to a long-acting depot antipsychotic (e.g., haloperidol decanoate)***

[1]Medication survey question 28 [2]Medication survey question 15 [3]Medication survey questions 1–4, 14

Guideline 2: A Patient with an Inadequate Response to Initial Treatment[4]

The duration of the treatment trial should be 3–8 weeks in patients with little or no therapeutic response or 5–12 weeks in patients with a partial response.[5]

(***Bold italics*** = treatment of choice)

If the inadequate response was:	**For persistent positive symptoms**	**For persistent negative symptoms**
To a conventional antipsychotic	***Switch to a newer atypical antipsychotic***	***Switch to a newer atypical antipsychotic***
To a newer atypical antipsychotic	Switch to a different newer atypical antipsychotic *or* Raise the dose of the atypical antipsychotic	Switch to a different newer atypical antipsychotic
To sequential trials of conventional and newer atypical antipsychotics	***Switch to clozapine**** *or* Switch to another newer atypical antipsychotic *or* Raise the dose of the newer atypical antipsychotic	Switch to clozapine* *or* Switch to another newer atypical antipsychotic
To multiple previous antipsychotic trials including clozapine (persistently refractory)	There is no definite expert consensus (see medication survey questions 11 & 12 for ratings of the various possibilities).	

[4]Medication survey questions 5–13 [5]1996 survey questions 6–7

*The experts recommend considering clozapine after 2 failed trials of other antipsychotics (as long as at least one of these was an atypical) and rate it as the treatment of choice after 3 (or more) failed trials.

Guideline 3: Strategies to Reduce Substance Abuse and Medication Noncompliance

3A: For Substance Abuse[6]

Evaluation	Pharmacological issues	Programmatic issues
Assess for the presence of substance abuse in every patient, especially when there is a relapse of psychotic symptoms.	In most situations, maintain continuous antipsychotic dosing at a therapeutic level even when the patient is abusing drugs or alcohol. Atypical antipsychotics are preferred.* Depot medication may be helpful if noncompliance is a problem.	Fully integrate substance abuse treatment into the standard treatment program for schizophrenia.

[6]Medication survey question 15; 1996 survey questions 32–33

*High second line

3B: For Medication Noncompliance[7]

(***Bold italics*** = treatment of choice)

Interventions to improve compliance		
Pharmacological	**Psychosocial**	**Programmatic**
Base choice of medication on the side effect profile most acceptable to the patient (Guideline 5) ***Consider using a long-acting depot antipsychotic, particularly if the patient has lack of insight into the need for medication*** Monitor symptoms and side effects ***Monitor medication (e.g., direct observation, weekly pill box)***	***Family education and support*** ***Patient education and support*** Motivational interviewing (e.g., helping the patient realize that attaining personal goals requires compliance with treatment) Introduce new interventions gradually according to the level of clinical recovery and cognitive impairment Time interventions based on patient's preference and sense of urgency	***Concurrent treatment of substance abuse*** ***Provide assertive community treatment services*** Continuity of primary clinician across treatment modalities (e.g., inpatient, outpatient, and residential programs) Provide a depot medication clinic Provide more intensive services (e.g., case management, day hospital) Supervised residential services

[7]Medication survey questions 4 & 14; psychosocial survey question 9

Guideline 4: Selecting Medications for Specific Complicating Problems

The presence of complicating problems does not seem to have a great impact on the choice of antipsychotic medication. The newer atypical antipsychotics were preferred over the conventionals in most comparisons, just as they were for the general treatment of schizophrenia. However, the high potency conventional antipsychotics did receive somewhat higher ratings for aggression/violence and agitation/excitement than they did for any of the other clinical situations. Clozapine was preferred for compulsive water drinking. The more sedating antipsychotics are most useful for patients with insomnia. Although there were some small differences in the ratings among the four newer atypicals, for the most part these were not statistically significant.

	Recommended antipsychotic medications[8]	**Recommended adjunctive medications**[9]
Aggression/violence	Clozapine* *or* High potency conventional antipsychotic *Consider newer atypical antipsychotic*†	Valproate
Agitation/excitement	The experts did not make clear distinctions among the choices.	Valproate *or* Benzodiazepine‡ (only if no history of substance abuse)
Insomnia	*Atypical or low potency conventional antipsychotics preferred*†	Benzodiazepine‡ (only if no history of substance abuse) *Otherwise, consider trazodone, diphenhydramine, or hydroxyzine*†
Dysphoria	Atypical antipsychotics strongly preferred over conventional	Selective serotonin reuptake inhibitor
Suicidal behavior	Atypical antipsychotics strongly preferred over conventional	Selective serotonin reuptake inhibitor if in the context of postpsychotic depression[10]
Comorbid substance abuse	Atypicals antipsychotics preferred over conventionals	
Cognitive problems	Atypical antipsychotics strongly preferred over conventional	
Compulsive water drinking (psychogenic polydipsia)	Clozapine****** *Newer atypicals preferred over conventionals*†	

[8]Medication survey question 15 [9]Medication survey question 16 [10]Medication survey question 17

*Clozapine is not indicated as an initial treatment (see Guideline 2).

†Recommendations to consider in italics were rated high second line by the experts.

‡Editors' note: short-term use of benzodiazepines for agitation, excitement, or insomnia in inpatients may be indicated even if there is a history of substance abuse.

Guideline 5: Selecting Medications to Avoid Side Effects[11]

	Least likely to cause	**Most likely to cause**
Sedation	Risperidone *Ziprasidone,* high potency conventional antipsychotics*†	Low potency conventional antipsychotics Clozapine
Weight gain	*Ziprasidone, risperidone*†	Clozapine Olanzapine
Extrapyramidal side effects	Clozapine Quetiapine Olanzapine Ziprasidone *Risperidone*†	Mid- and high-potency conventional antipsychotics
Cognitive side effects	Atypical antipsychotics	Low potency conventional antipsychotics
Anticholinergic side effects	Risperidone Ziprasidone *Quetiapine, high potency conventional antipsychotics*†	Low potency conventional antipsychotics Clozapine
Sexual/reproductive side effects	*Quetiapine, olanzapine, ziprasidone, clozapine*†	Conventional antipsychotics
Cardiovascular side effects	Risperidone *Olanzapine, high potency conventional antipsychotics, quetiapine*†	Low potency conventional antipsychotics
Tardive dyskinesia	Clozapine Quetiapine Olanzapine Ziprasidone	Conventional antipsychotics
Recurrence of neuroleptic malignant syndrome	Olanzapine Clozapine *Quetiapine, ziprasidone, risperidone*†	Conventional antipsychotics
Editors' Recommendation: Note that the risk of agranulocytosis must be taken into account in prescribing clozapine.		

[11]Medication survey questions 19 & 21

*Not yet available at time of first printing
†Recommendations to consider in italics were rated high second line by the experts.

Guideline 6: The Maintenance Phase

Issue	Recommendation
Choice of maintenance antipsychotic	Select medication, dose, and route of administration most likely to enhance adherence and reduce side effects (PORT Recommendation 9).
Duration of maintenance antipsychotic therapy	12–24 months for first episode patients who have gone into remission after the acute episode has resolved (1996 survey question 4 and PORT Recommendation 8) Longer term (up to lifetime) when diagnosis of schizophrenia is clearly established by multiple episodes and/or persistent symptoms (PORT Recommendation 10) For elective dose reductions, taper gradually at 2–4 week intervals over a period of several months rather than abruptly switching to the targeted lower dose (1996 survey question 27).
Dosing of maintenance antipsychotic therapy	Continuous dosing recommended; intermittent approaches are not recommended unless the patient refuses continuous maintenance treatment (PORT Recommendation 11). For recommended maintenance doses, see Guideline 7.
Use of depot formulation	For patients who have had trouble reliably taking oral medications, who have poor insight/denial of illness, or who prefer depot (PORT Recommendation 12)
Development of tardive dyskinesia (TD) on conventionals[12]	For mild TD, switch to newer atypical. For more severe TD, switch to clozapine or newer atypical.
Treatment of postpsychotic depression[13]	**Medication Strategies** Add a selective serotonin reuptake inhibitor (SSRI) antidepressant to the conventional antipsychotic (1996 survey question 18). Continue the antidepressant, if effective, for at least 6 months. Some experts recommend much longer treatment when necessary. **Psychosocial Strategies** Patient education that emphasizes schizophrenia as a “no fault” brain disorder Rehabilitation to improve role functioning and/or work skills Peer support or self-help group *Consider stress management, problem solving, and supportive psychotherapy to help the patient cope with the illness and depressive symptoms.**
Ongoing monitoring	Routinely evaluate for and promptly respond to prodromal signs of relapse.[14] Monitor for and manage emerging side effects at each visit.[14] Monitor for tardive dyskinesia at least every 4 months for conventional antipsychotics, 6 months for newer atypical antipsychotics, and 9 months for clozapine.[15] Plasma monitoring is occasionally useful when noncompliance with treatment is suspected or phamacokinetic interactions are a concern (PORT recommendation 6).

[12]Medication survey question 24
[13]Medication survey questions 17 & 18; psychosocial survey question 5
[14]Psychosocial survey questions 1–4
[15]Medication survey question 20

*Recommendations to consider in italics were rated high second line by the experts.

Guideline 7: Prescribing Advice

The following figures represent a rounding off of the experts' scores to the nearest doses that are conveniently available. However, there were wide standard deviations in the responses, suggesting that considerable flexibility is necessary in matching the appropriate dose to the individual patient's needs. The recommendations are for healthy young adults. It is advisable to consult standard pharmacology texts for more information on recommended doses and to exercise extreme caution, especially in treating children, the elderly, and patients with complicating medical conditions.

7A: Oral Antipsychotics[16]

	Acute phase				Maintenance phase
Medication	**Starting dose (total mg/day)**	**Average target dose (mg/day)**		**Length of adequate trial (weeks)**	**Average maintenance dose (mg/day)**
		First episode	**Recurrent episode**		
High potency					
Haloperidol	2–5	5–10	8–12	6–7	5–10
Fluphenazine	2–5	5–10	10–15	6–7	5–10
Medium potency					
Perphenazine	2–12	20	32	6–7	16–24
Low potency					
Thioridazine	50–125	250–300	400	6–7	300
Atypicals					
Olanzapine	5–10	10–15	15–20	6–7	10–20
Quetiapine	50–100*	300	300–600	6–7	300–400
Risperidone	1–2	4	6	6–7	4–6
Ziprasidone‡	40–80*	80–120	160	6–7	80–120
Clozapine	25–50*†	300	400–450	12	400

[16]Medication survey question 25

*Usually given in divided doses
†Clozapine dose selection can be substantially informed by plasma level monitoring.
‡Not yet available at time of first printing

7B: Depot Antipsychotics[17]

Medication	**Steady state dose**
Haloperidol	50–175 mg/month
Fluphenazine	12.5–37.5 mg/every 2–3 weeks

[17]Medication survey question 26

Guideline 8: Tips on Switching Antipsychotics

8A: When to Switch and When Not to Switch from a Conventional Antipsychotic

	First line	High second line
Factors that favor switching from one antipsychotic to another[18]	• Persistent extrapyramidal symptoms that have not responded to treatment with antiparkinsonian or antiakathisia agents • Other disturbing side effects • Risk of tardive dyskinesia • Persistent positive or negative symptoms • Relapse despite adherence to treatment • To improve level of functioning • Patient or family preference • Persistent cognitive problems	• Disruptive or disorganized behavior • Persistent agitation • Persistent severe mood symptoms
Factors that favor ***NOT*** switching from one antipsychotic to another[19]	• Patient doing well on current medication (good efficacy, few side effects) • Patient on a depot antipsychotic because of history of recurrent compliance problems • Patient for whom exacerbation of psychotic symptoms would present unacceptable risk of danger to self or others • Patient or family preference to remain on current medication	• Inability to obtain or pay for new medications • Inadequate level of clinical follow-up available during the switch • Recent (last 3–6 months) recovery from a relapse • Lack of social supports to provide medication supervision • Concurrent life stressors (e.g., moving, changing treatment programs)

[18]Medication survey question 27 [19]Medication survey question 28

8B: How to Switch

We asked the experts about three possible methods of switching from one antipsychotic to another: 1) stop the old antipsychotic abruptly and immediately start the new antipsychotic, 2) cross-titration—gradually reduce the dose of the first antipsychotic while gradually increasing the dose of the new antipsychotic, 3) overlap and taper—don't reduce the dose of the old antipsychotic until the new antipsychotic is at a full therapeutic dose. Each method has advantages and disadvantages. The stop-the-old/start-the-new method has the advantages of simplicity, a reduced risk of medication errors, and a reduced risk of side effects. Nonetheless, the experts prefer either the overlap and taper or cross-titration methods, citing the advantages of reduced risk of relapse and withdrawal symptoms. Switching from clozapine must be done especially gradually.[20]

Issue	**Recommendation**
Preferred methods of switching[21]	Cross-titration Overlap and taper
Preferred duration of switching[22]	4–5 weeks if the switch does NOT involve clozapine 7–8 weeks if the switch does involve clozapine
Factors favoring a very gradual switch from one antipsychotic to another[23]	• History of violence or aggression • History of suicide risk • Severe course of illness • Taking high dosage of first antipsychotic • Switching from clozapine to another antipsychotic • Switching from another antipsychotic to clozapine *Also consider a gradual switch in the following situations:** *Limited availability of clinical monitoring* *Patient/family preference* *Presence of life stressor* *Limited social supports*
When to discontinue an anticholinergic after discontinuing a conventional antipsychotic[24]	• Gradually taper the anticholinergic over 1–2 weeks after completely discontinuing the conventional antipsychotic for patients taking oral medication; longer when the previous medication was depot.
Editors' Recommendation: It is crucial that inpatient and outpatient staff maintain close coordination and continuity of care when the switch is begun on an inpatient unit.	

[20]Medication survey question 29 [21]Medication survey questions 30–31 [22]Medication survey questions 32–33
[23]Medication survey question 34 [24]Medication survey question 36

*Recommendations to consider in italics were rated high second line by the experts.

II. STRATEGIES FOR SELECTING SERVICES

Guideline 9: Providing Inpatient and Transitional Services

9A: Indications for Hospitalization

Indications for hospitalization[25]	Length of acute hospitalization[26]
• Risk of harm to others • Risk of suicide • Severe disorganization • Acute psychotic symptoms • Risk of accidental injury	1–2 weeks (This assumes the availability of a full range of outpatient services and continuity of care as outlined in Guideline 10. Also see Guideline 17 for indications for longer hospital stays.)

[25]Medication survey question 37; psychosocial survey question 11 [26]1996 survey question 15

9B: Ensuring Continuity of Care after Hospitalization

Perhaps the most crucial aspect of discharge planning is ensuring that the patient does not fall through the cracks before the first outpatient appointment. The experts recommend scheduling the patient's first outpatient appointment within 1 week of discharge from the inpatient service. The following responsibilities are most important for the inpatient and outpatient staff.

(***Bold italics*** = treatment of choice)

Services provided by inpatient staff[27]	Services provided by outpatient staff[28]
Schedule the first outpatient appointment within 1 week.	*Call* **patient** *to reschedule if the patient fails to attend the initial outpatient appointment.*
Provide enough medications to last at least until the first outpatient appointment.	Call family or supervised living facility to seek help in getting the patient to the clinic if patient fails to attend the initial outpatient appointment.
Provide an around-the-clock phone number to call for problems before the first outpatient appointment.	Provide an around-the-clock phone number to call for problems before the first outpatient appointment.
	Call the patient after discharge with a reminder about the first outpatient appointment.
	Visit the patient in the hospital prior to discharge.

[27]1996 survey questions 23–24 [28]1996 survey question 25

Guideline 10: Selecting Outpatient Services

The following definitions were used by the experts in completing the survey on psychosocial treatment and are reproduced here to help you understand their recommendations and responses. Naturally, not every type of service or facility is available in every community. High second line treatments may be necessary and desirable when first line options are not available or when the patient or family prefer them. However, the experts' preferences may also be helpful in making policy decisions about which new services need to be developed.

Types of Service Delivery

MD appointments in conjunction with a non-MD outpatient clinician (e.g., nurse, psychologist, social worker)

Assertive community treatment: intensive, integrated, and coordinated treatment, combining case management and clinical services, delivered in vivo by a multidisciplinary team with a 1:10 staff to patient ratio

Psychosocial rehabilitation: an organized, structured, multidimensional work program similar to Fountain House or Thresholds

Psychiatric rehabilitation: a structured program that helps patients choose, get, and keep preferred roles in living, working, learning, and social environments of choice

Vocational rehabilitation: a structured, organized, individualized work assessment and training program typically provided by a Division of Vocational Rehabilitation Services (VRS) with the goal of facilitating competitive employment

Intensive partial hospitalization: a multidisciplinary, active treatment program of structured clinical services within a therapeutic milieu aimed at acute symptom remission, hospital avoidance, and/or reduction of inpatient length of stay

After-care day treatment: a long-term, supportive program that provides daily structure, socialization, recreation, skills training, and life enrichment

Case management: brokering, linking, advocating for needed services and resources (e.g., medical treatment, food, clothing, housing, entitlements); may include some direct clinical services related to quality of life and functioning

Types of Intervention

Patient and family education: on the nature of schizophrenia, its treatment, and coping and management strategies

Training and assistance with activities of daily living: shopping, budgeting, cooking, laundry, personal hygiene, social/leisure, recreational activities, etc.

Assistance with obtaining medication: helping patient obtain and pay for needed medications (e.g., through public and private health insurance, co-payment waivers, indigent drug programs, pharmaceutical companies)

Medication and symptom monitoring: helping ensure compliance by dispensing doses, supervising use of a weekly pill box, or directly observing doses; using a daily checklist to monitor symptoms and side effects

Cognitive and social skills training: to improve a variety of skills including social perception, problem solving, communication, conflict resolution, assertiveness, stress management, criticism management, and decision making

Supportive/reality oriented therapy: empathy, reassurance, reinforcement of health-promoting behavior, accepting the illness and adjusting to disabilities, reality testing, and support of remaining competencies

Peer support/self-help groups: mutual support groups usually of patients and families that meet regularly to share experiences, provide advice, and offer emotional support

Psychodynamic psychotherapy: exploratory psychotherapy, either individual or group format

Types of Residential Settings

Brief respite/crisis home: an intensive, structured, supervised residential program with on-site nursing and clinical staff who provide in-house treatment; 24-hour awake coverage typically provided by nursing staff

Transitional group home: an intensive, structured, supervised residential program with on-site clinical and paraprofessional staff who provide daily living skills training. Treatment may be provided in-house or residents may attend a treatment or rehabilitation program; 24-hour awake coverage is typically provided by paraprofessional staff.

Foster or boarding home: a supportive group living situation owned and operated by lay people; staffing usually provided around the clock (staff typically sleep in the home)

Supervised or supported apartment: a building of single or double occupancy apartments with paraprofessional residential managers on site or with one or more sources of external supervision, support, and assistance (e.g., periodic visits by case managers, family, or paraprofessionals)

Living with family: one or more relatives assume responsibility for providing supervision and assistance. Family members may or may not work during the day and 24-hour supervision is usually not provided.

Independent living: an apartment or home that is maintained with no in-house structure, supervision, external support, or assistance

Severity and Course Descriptors

Patient Having a First Episode

- Typically presents because of prominent positive symptoms, although negative symptoms may also be present
- Usually has had little or no previous treatment
- May have been ill for a long period of time before seeking services
- Unlikely to have accurate information about schizophrenia or its treatment
- Likely to blame others for current condition
- Family/significant others may not yet understand that patient's behavior is the result of illness
- Diagnosis may not be certain
- Usually doesn't know how to access the mental health service system

Patient Is Severely Impaired and Has an Unstable Course of Illness

- Persistent positive and negative symptoms
- Frequent acute exacerbations
- No prolonged periods of stabilization
- Has required involuntary commitment for recurrent episodes
- Often noncompliant with medication and/or psychosocial treatment
- Has considerable difficulty with activities of daily living (e.g., housing, finances, self-care)
- Serious deficits in social abilities
- Likely to be known to the police
- High rate of comorbidity of other psychiatric and/or medical disorders, including substance abuse, mood disorders, and personality disorders

Patient Is Moderately Impaired and Has an Intermittently Stable Course of Illness

- At continuing risk for periodic symptom exacerbations
- Achieves a reasonable degree of symptom remission between acute episodes
- More likely to be treatment compliant
- Has had a moderate number of major episodes (5 or fewer) by middle age, with more frequent minor exacerbations of symptoms during crises or role transitions
- Rarely involved with the police
- Less likely to have a comorbid disorder

Patient Is Mildly Impaired and Course of Illness Is Often Stable

- History of only one or two episodes of acute exacerbation by middle age
- Obtains significant remission of symptoms between episodes with appropriate medication
- Vulnerable to minor exacerbations of psychotic or affective symptoms in times of crisis or role transitions
- Negative symptoms mild or infrequent
- Lowest rate of comorbid disorders

10A: For a Patient Having a First Episode[29]

	During the acute episode	During the phase of early post-episode resolution	During the maintenance phase
Type of service delivery	MD appointments in conjunction with non-MD clinician →		
		Case management →	
	Consider intensive partial hospitalization*		*Consider psychiatric rehabilitation*
Type of intervention	Medication and symptom monitoring →		
	Assistance with obtaining medication →		
	Collaborative decision making with patient, family, and clinician →		
	Patient and family education →		
		Assistance with obtaining services and resources →	
		Supportive/reality oriented individual therapy →	
			Consider cognitive and social skills training; support group; training in activities of daily living
Staffing	High (≥ 1 full time equivalent [FTE] per 10 patients) →		Moderate (1 FTE per 11–50 patients)
Intensity	1–5 contacts/week as needed →		1–4 contacts/month as needed
Possible residential settings to consider	Brief respite/crisis home	*Consider living with family if feasible*	Independent living Living with family if feasible *Consider supervised or supported apartment*

[29]Psychosocial survey question 1

*Recommendations to consider in italics were rated high second line by the experts.

10B: For the Patient Who Is Severely Impaired and Unstable[30]

	During an acute exacerbation	During the phase of early post-episode resolution	Between acute episodes
Type of service delivery	Assertive Community Treatment (ACT) →		
	or		
	MD appointments in conjunction with non-MD →		
	Consider case management*	Case management →	
	Consider intensive partial hospitalization →		*Consider psychiatric or psychosocial rehabilitation*
Type of intervention	Medication and symptom monitoring →		
	Assistance with obtaining medication →		
	Assistance with obtaining services and resources →		
	Collaborative decision making with patient, family, and clinician →		
		Patient and family education →	
		Training and assistance with activities of daily living →	
		Consider supervision of finances, supportive/ reality oriented individual therapy →	
			Cognitive and social skills training
			Consider peer support/self help group
Staffing	High (≥ 1 FTE per 10 patients) →		
Intensity	1–5 contacts/week as needed →		
Possible residential settings to consider	Brief respite/crisis home	*Consider transitional group home or other arrangement depending on patient/family needs and preferences*	*Consider supervised or supported apartment or other arrangement depending on patient/family needs and preferences*

[30]Psychosocial survey question 2

*Recommendations to consider in italics were rated high second line by the experts.

10C: For the Patient Who Is Moderately Impaired and Intermittently Stable[31]

	During an acute exacerbation	During the phase of early post-episode resolution	During the maintenance phase
Type of service delivery	MD appointments in conjunction with non-MD →		
	Consider intensive partial hospitalization, case management, or ACT*	Case management →	
			Rehabilitation services
Type of intervention	Medication and symptom monitoring →		
	Assistance with obtaining medication →		
	Collaborative decision making with patient, family, and clinician →		
	Patient and family education →		
	Assistance with obtaining services and resources →		
		Consider supportive/ reality oriented individual therapy; support group	Peer support/self-help group *Consider individual or group supportive therapy; cognitive and social skills training; and assistance with activities of daily living*
Staffing	High (≥ 1 FTE per 10 patients)	Moderate (1:11–50) to High (≥ 1 FTE per 10)	Moderate (1 FTE per 11–50 patients)
Intensity	1–5 contacts/week as needed	1 contact/month to 5 contacts/week as needed	1–4 contacts/month as needed
Possible residential settings to consider	Brief respite/crisis home	No clear-cut recommendation. Individualize choice of living arrangement to meet patient/family needs and preferences	Supervised or supported apartment *Consider independent living or living with family if feasible*

[31]Psychosocial survey question 3

*Recommendations to consider in italics were rated high second line by the experts.

10D: For the Patient Who Is Mildly Impaired and Often Stable[32]

	During an acute exacerbation	During the phase of early post-episode resolution	During the maintenance phase
Type of service delivery	MD appointments in conjunction with non-MD →		
	Consider intensive partial hospitalization*		*Consider vocational rehabilitation*
Type of intervention	Medication and symptom monitoring →		
	Collaborative decision making with patient, family, and clinician →		
	Patient and family education →		
	Assistance with obtaining medication *Consider assisting with obtaining services and resources*	*Consider assisting with obtaining medication, services, and resources; supportive individual therapy; peer support/self-help group*	Peer support/self-help group *Consider supportive therapy*
Staffing	High (≥ 1 FTE per 10 patients)	Moderate (1:11–50) to high (≥ 1 FTE per 10)	Low (1:>50) to moderate (1:11–50)
Intensity	1–5 contacts/week (or more frequently) as needed	1 contact/month to 5 contacts/week as needed	Every 3 months to 4 contacts/month as needed
Possible residential settings to consider	Brief respite/crisis home	*Consider living with family if feasible or independent living*	Independent living *Consider living with family if feasible; supervised or supported apartment*

Further recommendations

1. The most important reason for offering vocational services to patients with schizophrenia is that they identify competitive employment as a personal goal. The experts also believe that certain patient characteristics predict vocational success—a history of competitive employment and achieving a long-term recovery, with few persistent cognitive or negative symptoms and few or no persistent psychotic symptoms.[33]
2. We asked the experts whether they favored a healing or "sealing over" period (during which minimal demands are made on the patient) to consolidate gains during the recovery process, but there was not much enthusiasm for this approach.[34]

[32]Psychosocial survey question 4 [33]Psychosocial survey question 7 [34]Psychosocial survey question 8

*Recommendations to consider in italics were rated high second line by the experts.

Guideline 11: Working with the Family

	First line	Second line
Inpatient[35]		
Family contact: telephone	Within 1 working day of admission	Within 3–7 working days of admission
Family contact: face to face	Within 3 working days of admission	Within 1 week of admission
Goals of family contact	Obtain a history of the patient's prior treatment and treatment response Coordinate financial and placement resources Initiate psychoeducation	Assess family strengths and needs Begin family therapy targeting family caregiving skills
Outpatient[36]	Referral to a family support/advocacy group (e.g., NAMI, 800-950-NAMI) Family sessions focused on coping and problem-solving	Individual or multi-family educational sessions Provide family with written educational materials and an opportunity to discuss them with clinician Family sessions focused on reducing high expressed emotion

[35]1996 survey questions 13 & 14 [36]Psychosocial survey question 6

Guideline 12: Essentials of Psychosocial Evaluation and Planning[37]

Assessment	• Assess prior response to psychosocial interventions • Complete a needs assessment • Assess readiness, skills, and supports in relation to overall goals • Achieve a therapeutic alliance prior to implementing services
Planning and timing interventions	• Collaborate with patient and family to identify goals and plans • Ensure continuity of primary clinician across treatment modalities • Avoid making multiple changes at the same time • Introduce interventions in a graduated way according to the patient's level of recovery, cognitive impairments, preference, and readiness

[37]Psychosocial survey question 10

III. ASSESSMENT ISSUES

Guideline 13: Diagnostic Evaluation and Differential Diagnosis[38]

Before making the diagnosis of schizophrenia, it is important to rule out other syndromes that may also present with psychotic symptoms or odd behaviors.

Rule out:	**Characteristics that distinguish from schizophrenia**
Psychotic disorder due to a general medication condition, delirium, or dementia	Presence of an etiological general medical condition
Substance-induced psychotic disorder or delirium	Psychotic symptoms are initiated and maintained by substance use or medication side effects
Schizoaffective disorder	Significant mood symptoms are present for a substantial portion of the total duration of the illness
Mood disorder with psychotic features	Psychotic symptoms occur exclusively during periods of mood disturbance
Schizophreniform disorder	Duration of psychotic symptoms between 1 and 6 months
Brief psychotic disorder	Duration of psychotic symptoms less than 1 month
Delusional disorder	Nonbizarre delusions that occur in the absence of hallucinations, disorganized speech or behavior, or negative symptoms
Pervasive developmental disorders	Early onset (e.g., before age 3 for autistic disorder); absence of prominent hallucinations or delusions
Schizotypal, schizoid, or paranoid personality disorders	Absence of clear psychotic symptoms

[38]Adapted with permission from First MB, Frances A, Pincus HA. DSM-IV Handbook of Differential Diagnosis. Washington, DC: American Psychiatric Press; 1995, pp. 148–149

Guideline 14: Medical Evaluation

14A: Laboratory Evaluations for a First Episode Patient[39]

Recommended for all patients:	**Also consider depending on circumstances:**
• Drug screen • General chemistry screen • Complete blood count • Urinalysis	• Pregnancy test • Electrocardiogram • MRI or CT scan of the brain • Electroencephalogram • Neuropsychological testing • General psychological testing

[39]1996 survey question 1

Guideline 14: continued

14B: Annual Screening Tests and Procedures for the Maintenance Phase[40]

Recommended for all patients:	**Also consider depending on circumstances:**
• Obtain weight and height • Blood pressure • Medical history/physical examination • Complete blood count	• Blood chemistry screen • Electrocardiogram • Dental checkup • Pelvic examination/pap smear • Drug screen • Tuberculin skin test • Lipid profile • Mammography (women) • Prostate specific antigen • Hepatitis screening • HIV testing

[40]Medication survey question 38

14C. Most Common Comorbid Medical Conditions and Risk Factors to Assess For and Treat[41]

Assess for:

- Obesity
- HIV risk behavior
- Smoking
- Hypertension

Depending on individual case, consider assessing for:

- Medical complications of substance abuse
- Diabetes
- Cardiovascular problems

[41]Medication survey question 39

IV. POLICY ISSUES*

Guideline 15: Financing and Organizing Care[42]

The policy experts stress the importance of viewing mental health as a fully equal component of general health care and strongly endorse parity for mental health benefits in private insurance plans. The experts consider the most appropriate sources of input for decision making about public mental health treatment policies to be those most affected and those with the greatest expertise, while they consider the least appropriate sources of input to be those whose sense of profit and loss could cloud decisions. The experts support regional or local public mental health authorities or nonprofit consortiums as the most appropriate managers of publicly sponsored, mental health carve-outs, with statewide agencies coming just behind. In contrast, they consider management by for-profit managed care entities, whether regional, local, or statewide, as inappropriate alternatives. The experts recommend improving affiliations between mental health clinics and primary care physicians as the most appropriate means of ensuring integration between mental health and general medical care.

	Preferred option
Benefit limits for mental health care	• ***Full parity between freestanding health (general medical) and mental health benefits (e.g., $1,000,000 lifetime benefit limits)***
Most appropriate sources of input for policy decision making	• Consumer and advocacy groups • Expert consensus recommendations • State and local government agencies • Peer-reviewed mental health and health policy journals • Professional clinical organizations (e.g., American Psychiatric Association)
Most appropriate managers for publicly funded mental health carve-outs	• Regional or local government mental health authorities or community mental health centers (CMHCs) • Regional or local nonprofit provider consortiums • State-level government mental health agencies • Statewide nonprofit provider consortiums
Most appropriate models for integrating general medical and mental health care	• Mental health clinics affiliate with or refer to selected primary care providers to improve the coordination of general medical and mental health care

[42]Policy Survey Questions 1–4

*Results of Policy Survey Questions available from editors on request

Guideline 16: Cost-Effectiveness[43]

The experts recommend a quality improvement approach that provides physicians with feedback about their prescribing patterns and use of intensive levels of care in comparison to established practice guidelines or their peers' prescribing practices. To evaluate the relative cost-effectiveness of different antipsychotic medications, the experts recommend broad cost measurement methods that take into account total costs rather than narrowly focusing only on individual drug costs.

	Preferred option
Strategies to encourage high quality, cost-effective prescribing of medications	• Provide feedback about personal prescribing patterns in comparison with practice guidelines • Include medications in capitation rates for all mental health treatment • Provide feedback about personal prescribing patterns in comparison with the physician's peers
Strategies to encourage use of cost-effective levels of care	• Provide feedback about personal admitting patterns in comparison with practice guidelines • Include all intensive levels of care in capitation rates for all mental health treatment • Provide feedback about personal admitting patterns in comparison with the physician's peers • Require preauthorization and concurrent review of intensive levels of care
Most appropriate methods of evaluating cost-effectiveness of medications	• Total average yearly direct and indirect costs of the psychiatric illness comparing different medication treatment regimens (e.g., comparison of total average yearly cost attributable to the illness for patients on Drug A vs. Drug B including all psychiatric care for patients and significant others and costs to society such as social service and criminal justice systems) *or* • Total average yearly direct costs of all psychiatric care comparing different medication treatment regimens (e.g., total average yearly cost of all psychiatric care for patients on Drug A vs. Drug B)

[43]Policy survey questions 5–7

Guideline 17: Matching Care to Patient Needs

The policy experts support the general tendency toward shorter hospital stays for most patients with acute episodes being treated in general or freestanding hospitals. However, they also indicate that there are a number of situations in which patients are likely to need intermediate and long-term hospitalization. It is therefore necessary for planners to take into account the need for such longer-term facilities, which will often need to be government supported.

In terms of needed services for the outpatient care of patients with schizophrenia, the recommendations of the policy experts agree closely with those of the clinical experts (see Guideline 10). It seems clear that the need for and availability of specialized mental healthcare programs such as assertive community treatment (ACT) and individual intensive case management will be increasing.

17A: Inpatient Care[44]

Duration of hospitalization	Most appropriate for:
Brief hospitalization (1 day–3 weeks)—usually in a general or freestanding hospital	Acute episodes in relatively uncomplicated situations
Intermediate hospitalization (3–8 weeks)—often in a government hospital	Highly unstable patients with co-occurring substance abuse, mental retardation, or serious cognitive impairment, or serious medical comorbidity Moderately unstable patients with co-occurring substance abuse, mental retardation, serious cognitive impairment, or serious medical comorbidity Highly unstable but uncomplicated patients
Long-term hospitalization (> 8 weeks)—usually in a government hospital	Highly unstable patients with persistent refractory symptoms, often with co-occurring substance abuse, mental retardation, or serious cognitive impairment, or serious medical comorbidity

[44]Policy survey questions 9–11

17B: Outpatient Care[45]

Outpatient interventions	Most appropriate for:
Assertive community treatment (ACT) Individual intensive case management (e.g., 10–25 patients per individual case manager) Outpatient care in a community mental health center Partial hospitalization* Rehabilitation services	A highly or moderately unstable patient
Outpatient care in a community mental health center (medication management, individual, group, and/or family treatment, with psychoeducation and variable intensity case management available)	A stable patient with relatively mild impairment

[45]Policy survey question 8

*Not included as an option in the policy survey question but recommended in the clinical survey

Guideline 18: Important Community-Based Services[46]

As hospital stays in general become shorter, the level of acuity and severity of illness in outpatients with schizophrenia has increased markedly. The policy makers suggest the importance of providing an array of more integrated intensive outpatient treatment, crisis intervention, and residential services to meet this need.

(***Bold italics*** = treatment of choice)

Outpatient treatment	• ***Psychiatric assessment and medication management*** • Assertive community treatment (e.g., ACT model programs with approximately 10 patients per team member) • Individual intensive case management (e.g., 10–25 patients per individual case manager) • Short-term partial hospitalization and intensive outpatient treatment programs • Rehabilitation services*
24-hour crisis stabilization services	• Clinical teams providing home and community-based crisis intervention • Mobile crisis teams • Crisis beds with counseling and limited medical services with up to 3-day stay • Telephone crisis services (e.g., crisis counseling services with referral to other clinical services)
Residential services	• ***Supported housing (independent living in apartment or other residences, with support and supervision, focus on independent living and normalization)*** • Natural family placement (living with own family with appropriate mental health supports, focus on reintegration and maintenance) • Group homes (includes halfway houses, short-term and long-term group care homes, providing 24-hour on-site mental health personnel care, focus on rehabilitation)
Continuity of care	• Maximum time to first outpatient appointment after discharge: 2 days to 1 week

[46]Policy survey questions 12–15
*Not included as an option in the policy survey question but recommended in the clinical survey

Guideline 19: Measuring Outcomes[47]

The experts consider functional status (e.g., the patient's ability to relate to peers and family, vocational status, the ability to perform other activities of daily living) to be the most important measure of successful treatment of patients with schizophrenia. The policy experts give less weight to the clinician's rating of clinical symptoms as an indicator of quality of care.

Most appropriate measures of patient outcomes in evaluating quality of care	
First line	**Second line**
• Functional status (e.g., ability to relate to peers and family, ability to perform independent activities of daily living, vocational status) • Patient's perception of quality of life (e.g., satisfaction with living situation and social supports) • Patient's perception of benefits of care (e.g., positive effects of medication or psychotherapy) • Patient's perception of problems with care (e.g., drug side effects, difficulty getting appointments) • Safety issues (e.g., level of dangerousness or victimization, contact with legal system) • Patient and family global satisfaction with mental health services	• Restrictiveness of living situation (e.g., necessity of locked 24-hour care) • Clinician's ratings of symptomatology (e.g., scores on symptom checklists) • General health status

[47]Policy survey question 16

Expert Survey Results and Guideline References

The survey results are given in their entirety on the pages that follow. The components include:

- the question as it was posed to the experts
- the treatment options ordered as they were rated by the experts
- a bar chart depicting the confidence intervals for each of the choices
- a table of numerical values

The 95% Confidence Intervals

We first determined the mean, standard deviation, and 95% confidence interval (CI) for each item. The CI is a statistically calculated range which tells you that, if the survey were repeated with a similar group of experts, there is a 95% chance that the mean score would fall within that range. The 95% confidence intervals for each treatment option are shown as horizontal bars. When the bars do not overlap, it indicates that there is a statistically significant difference between the mean scores of the two choices.

Rating Categories

We designated a rating of first, second, or third line for each item on which there was consensus. This rating was determined by the category into which the 95% confidence interval of its mean score fell.


To be rated in the first line category, the entire CI had to fall at or above a score of 6.5 or greater.


To be rated second line, the CI had to fall between 3.5 and 6.49.


For third line, a portion of the CI had to fall below 3.5.

In assigning a rating for each item, we followed a stringent rule to avoid chance upgrading and assigned the lowest rating into which the confidence interval fell. For example, if the bottom of the confidence interval even bordered on the next lower category, we considered the item to be in the lower group.


Note that treatments of choice (items rated "9" by at least half the experts) are indicated by a star.

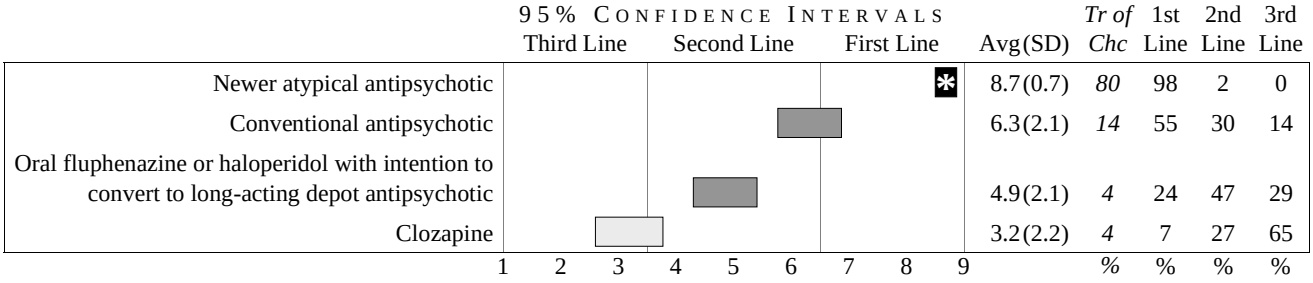
Numeric Values

Next to the chart we give a table of numeric values for the mean score (Avg) and standard deviation (SD) for each item, and the percentage of experts who rated the option treatment of choice (9), first line (7–9), second line (4–6), and third line (1–3). (Note: the percentage for treatment of choice [*Tr of Chc*] is also included in the total percentage for first line.)

How to Read the Figure

The graphic for Survey Question 1 shows that the experts rated the newer atypical antipsychotics as first line, since the bar for this option falls entirely within the first line category. In addition, because 80% of the experts rated newer atypical antipsychotics as 9, it is considered the treatment of choice (indicated by the star in the bar). The bar for conventional antipsychotics straddles the first and second line categories, resulting in a "top tier" second line designation. The bar for clozapine straddles the second and third line categories, resulting in a third line designation.

1 Please rate the appropriateness of each of the following as initial pharmacological treatment for a patient with ***a first episode*** of schizophrenia with predominantly ***positive*** psychopathology.

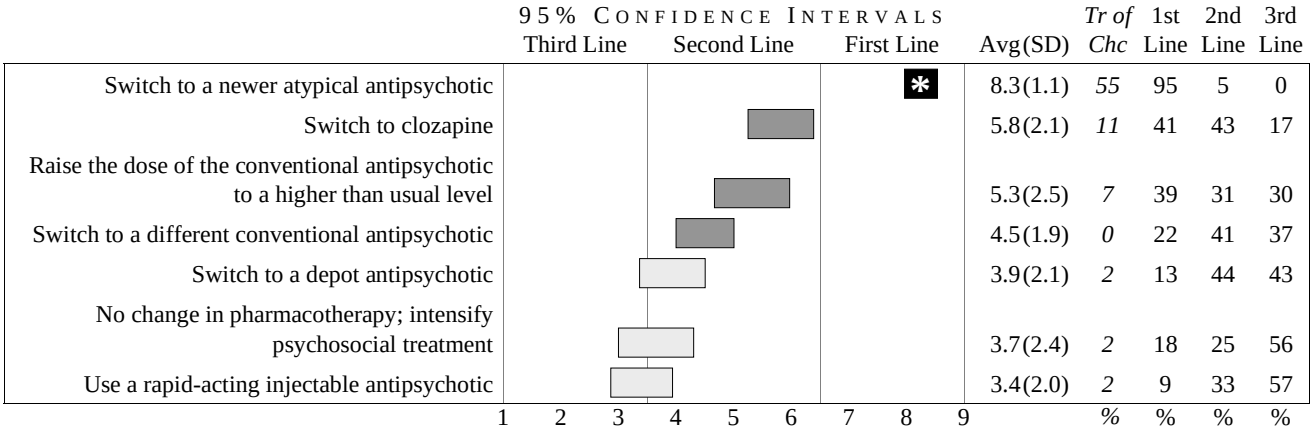


	95% Confidence Intervals Third Line / Second Line / First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Newer atypical antipsychotic		8.7(0.7)	*80*	98	2	0
Conventional antipsychotic		6.3(2.1)	*14*	55	30	14
Oral fluphenazine or haloperidol with intention to convert to long-acting depot antipsychotic		4.9(2.1)	*4*	24	47	29
Clozapine		3.2(2.2)	*4*	7	27	65
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

2 Please rate the appropriateness of each of the following as initial pharmacological treatment for a patient with ***a first episode*** of schizophrenia with ***both prominent positive and negative*** symptomatology.

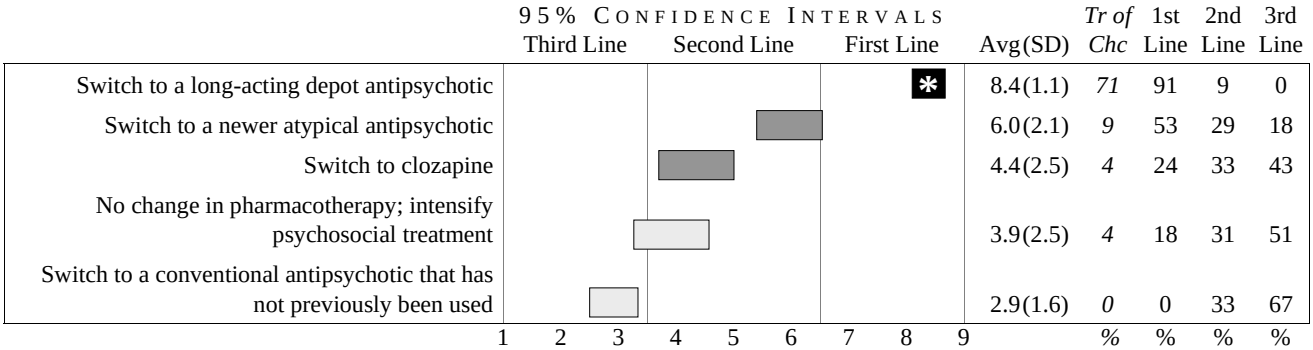
	95% Confidence Intervals Third Line / Second Line / First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Newer atypical antipsychotic		8.8(0.6)	*86*	98	2	0
Conventional antipsychotic		5.7(2.3)	*9*	41	38	21
Oral fluphenazine or haloperidol with intention to convert to long-acting depot antipsychotic		4.4(2.1)	*4*	20	42	38
Clozapine		3.6(2.3)	*4*	15	31	55
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

3 Please rate the appropriateness of each of the following treatment strategies for a patient having an ***acute exacerbation of chronic schizophrenia despite good compliance with*** an adequate dose of an oral conventional antipsychotic.



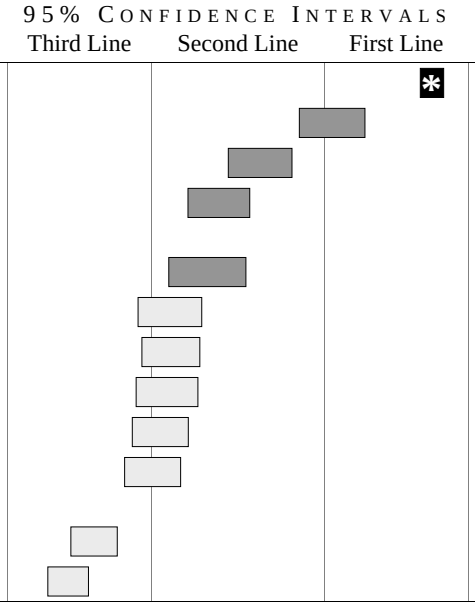
	95% Confidence Intervals Third Line / Second Line / First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a newer atypical antipsychotic		8.3(1.1)	*55*	95	5	0
Switch to clozapine		5.8(2.1)	*11*	41	43	17
Raise the dose of the conventional antipsychotic to a higher than usual level		5.3(2.5)	*7*	39	31	30
Switch to a different conventional antipsychotic		4.5(1.9)	*0*	22	41	37
Switch to a depot antipsychotic		3.9(2.1)	*2*	13	44	43
No change in pharmacotherapy; intensify psychosocial treatment		3.7(2.4)	*2*	18	25	56
Use a rapid-acting injectable antipsychotic		3.4(2.0)	*2*	9	33	57
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

4 Please rate each of the following treatment strategies for an unstable patient who ***repeatedly fails to take an oral conventional antipsychotic as prescribed*** and who suffers ***repeated exacerbations of chronic schizophrenia***. The patient denies having a mental illness or needing treatment and has had no extrapyramidal symptoms.



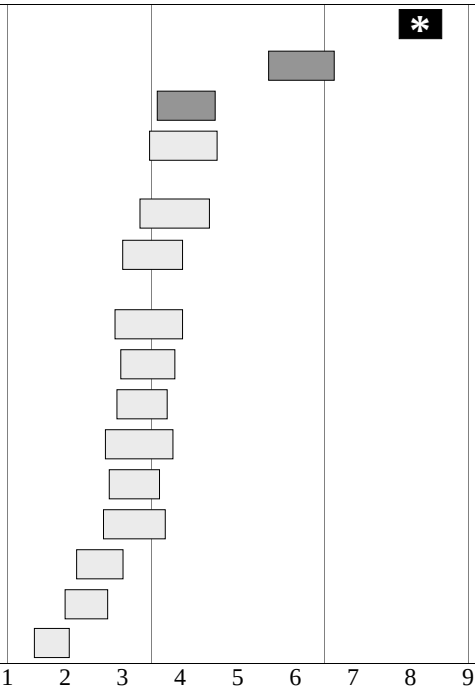
	95% Confidence Intervals Third Line / Second Line / First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a long-acting depot antipsychotic		8.4(1.1)	*71*	91	9	0
Switch to a newer atypical antipsychotic		6.0(2.1)	*9*	53	29	18
Switch to clozapine		4.4(2.5)	*4*	24	33	43
No change in pharmacotherapy; intensify psychosocial treatment		3.9(2.5)	*4*	18	31	51
Switch to a conventional antipsychotic that has not previously been used		2.9(1.6)	*0*	0	33	67
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

5 At the end of an adequate trial of a ***conventional antipsychotic*** for an acute exacerbation of schizophrenia, the patient continues to show ***prominent positive psychopathology***. Rate the appropriateness of each of the following as a possible treatment strategy. Assume the patient is medication compliant and is not abusing substances.



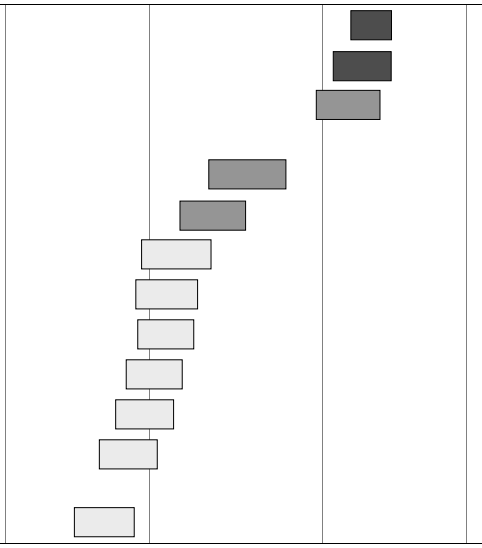
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a newer atypical antipsychotic	8.4(0.8)	*52*	98	2	0
Switch to clozapine	6.6(2.1)	*22*	56	35	9
Raise the dose of the conventional antipsychotic	5.4(2.3)	*7*	43	32	25
Switch to a different conventional antipsychotic	4.7(2.0)	*0*	22	49	29
Combine a conventional and a newer atypical antipsychotic	4.5(2.5)	*5*	25	35	40
Switch to a long-acting depot antipsychotic	3.8(2.1)	*2*	13	33	55
Add lithium	3.8(1.9)	*0*	9	38	53
Add an anticonvulsant medication	3.8(2.0)	*2*	13	33	55
Add a benzodiazepine	3.7(1.8)	*0*	4	45	51
Electroconvulsive therapy (ECT)	3.5(1.8)	*2*	4	46	50
No change in pharmacotherapy; intensify psychosocial treatment	2.5(1.5)	*0*	0	27	73
Combine two conventional antipsychotics	2.1(1.3)	*0*	0	13	88
		%	%	%	%

6 A patient receiving a ***conventional antipsychotic*** at the lowest dose that you believe will be effective continues to show ***prominent negative psychopathology***. Neither positive psychopathology nor depression is prominent. There is no evidence of akinesia, and the negative psychopathology has not responded to an antiparkinsonian agent. Assume the patient is medication compliant and is not abusing substances. Please rate the appropriateness of each of the following as a possible treatment strategy.



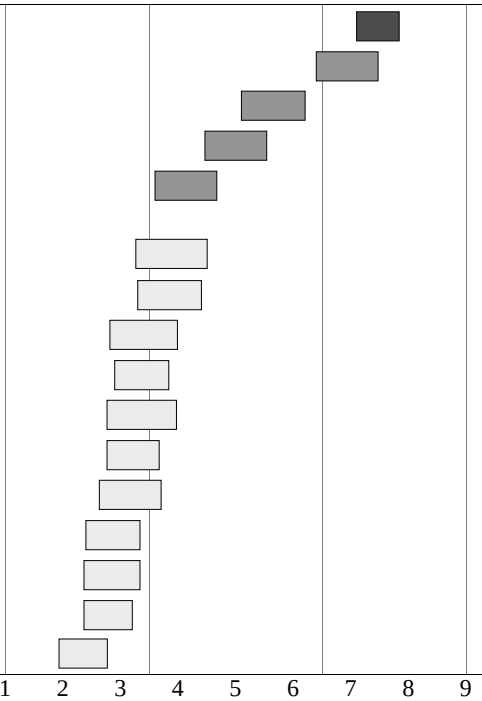
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a newer atypical antipsychotic	8.2(1.4)	*57*	89	9	2
Switch to clozapine	6.1(2.2)	*11*	48	39	13
Add a selective serotonin reuptake inhibitor	4.1(1.9)	*0*	9	54	37
Reduce the dose of the conventional antipsychotic	4.1(2.2)	*0*	20	35	45
Combine a conventional and a newer atypical antipsychotic	3.9(2.3)	*4*	18	34	48
Add bupropion	3.5(2.0)	*0*	5	42	53
No change in pharmacotherapy; intensify psychosocial treatment	3.4(2.2)	*4*	11	36	54
Add a dopaminergic agent (e.g., methylphenidate)	3.4(1.8)	*0*	5	40	55
Switch to a different conventional antipsychotic	3.3(1.7)	*0*	2	40	58
Add cycloserine	3.3(2.1)	*0*	8	37	55
Add an antidepressant of another class	3.2(1.7)	*0*	2	40	58
Add glycine	3.2(1.9)	*0*	4	33	63
Add a benzodiazepine	2.6(1.5)	*0*	2	27	71
Switch to a long-acting depot antipsychotic	2.4(1.4)	*0*	0	25	75
Combine two conventional antipsychotics	1.8(1.1)	*0*	0	7	93
		%	%	%	%

7 At the end of an adequate trial of a ***newer atypical antipsychotic*** for an acute exacerbation of schizophrenia, the patient continues to show ***prominent positive psychopathology***. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



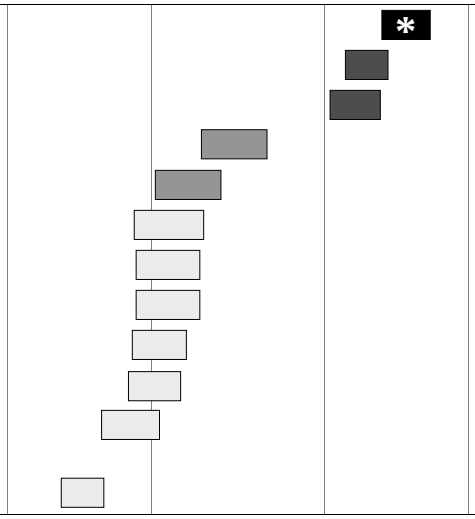
	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a different newer atypical antipsychotic				7.3(1.4)	*16*	82	16	2
Raise the dose of the newer atypical antipsychotic				7.2(1.9)	*25*	77	15	8
Switch to clozapine				7.0(2.1)	*32*	64	30	5
Combine a conventional antipsychotic and a newer atypical antipsychotic				5.2(2.5)	*11*	36	34	30
Switch to a conventional antipsychotic				4.6(2.1)	*2*	20	47	33
Combine two newer atypical antipsychotics				4.0(2.3)	*4*	16	38	46
Add an anticonvulsant medication				3.8(2.1)	*2*	11	34	55
Add lithium				3.8(1.8)	*0*	5	45	49
Add a benzodiazepine				3.6(1.8)	*0*	7	36	57
ECT				3.4(1.9)	*0*	7	43	50
Switch to a long-acting depot antipsychotic				3.1(1.9)	*2*	4	33	64
No change in pharmacotherapy; intensify psychosocial treatment				2.7(2.0)	*2*	5	23	71
	1 2 3 4 5 6 7 8 9				*%*	%	%	%

8 A patient receiving a ***newer atypical antipsychotic*** at an adequate dose continues to show ***prominent negative psychopathology***. Neither positive psychopathology nor depression is prominent. There is no evidence of akinesia, and the negative psychopathology has not responded to an antiparkinsonian agent. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



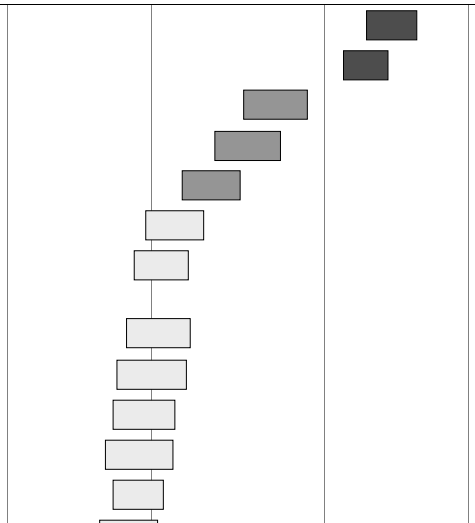
	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to a different newer atypical antipsychotic				7.5(1.4)	*29*	80	18	2
Switch to clozapine				6.9(2.1)	*23*	64	25	11
Raise the dose of the newer atypical antipsychotic				5.7(2.1)	*9*	36	45	18
Reduce the dose of the newer atypical				5.0(2.1)	*4*	32	39	29
Add a selective serotonin reuptake inhibitor				4.1(2.1)	*0*	11	50	39
No change in pharmacotherapy; intensify psychosocial treatment				3.9(2.4)	*2*	18	32	50
Add bupropion				3.9(2.1)	*0*	11	42	47
Add cycloserine				3.4(2.1)	*0*	8	33	58
Add a dopaminergic agent (e.g., methylphenidate)				3.4(1.8)	*0*	7	36	57
Combine two newer atypical antipsychotics				3.4(2.3)	*5*	11	25	64
Add an antidepressant of another class				3.2(1.7)	*0*	2	43	55
Add glycine				3.2(1.9)	*0*	4	34	62
Add a benzodiazepine				2.9(1.8)	*0*	4	25	71
Combine a conventional and a newer atypical				2.8(1.8)	*0*	5	21	73
Switch to a conventional antipsychotic				2.8(1.6)	*2*	4	22	75
Switch to a long-acting depot antipsychotic				2.3(1.6)	*2*	2	16	82
	1 2 3 4 5 6 7 8 9				*%*	%	%	%

9 After an ***adequate trial of a conventional antipsychotic followed by an adequate trial of one of the newer atypical antipsychotics***, the patient ***continues to show prominent positive psychopathology***. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



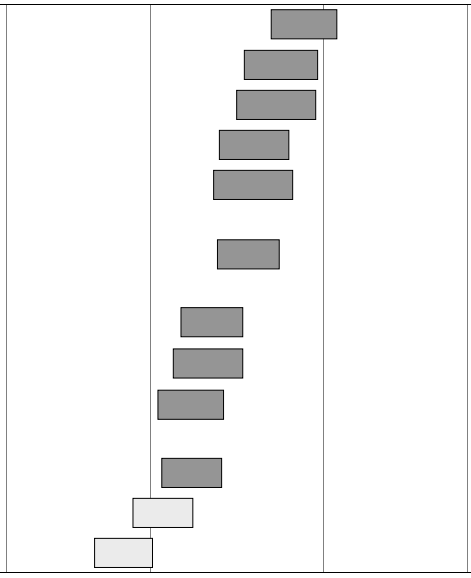
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to clozapine	7.9(1.6)	*50*	86	11	4
Switch to another of the newer atypicals	7.2(1.4)	*16*	73	25	2
Raise the dose of the newer atypical antipsychotic	7.0(1.6)	*22*	63	35	2
Combine a conventional and a newer atypical	4.9(2.2)	*2*	25	45	30
Add an anticonvulsant	4.1(2.1)	*4*	16	39	45
Combine two newer atypical antipsychotics	3.8(2.3)	*2*	20	25	55
ECT	3.8(2.1)	*2*	9	52	39
Add lithium	3.8(2.1)	*0*	15	36	49
Add a benzodiazepine	3.6(1.8)	*0*	7	41	52
Switch to another conventional antipsychotic	3.6(1.7)	*0*	4	45	52
Switch to a long-acting depot antipsychotic	3.1(1.9)	*2*	4	31	65
No change in pharmacotherapy; intensify psychosocial treatment	2.3(1.4)	*0*	0	21	79
		%	%	%	%

10 The patient continues to show ***prominent negative psychopathology after an adequate trial of a conventional antipsychotic followed by an adequate trial of one of the newer atypical antipsychotics***. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



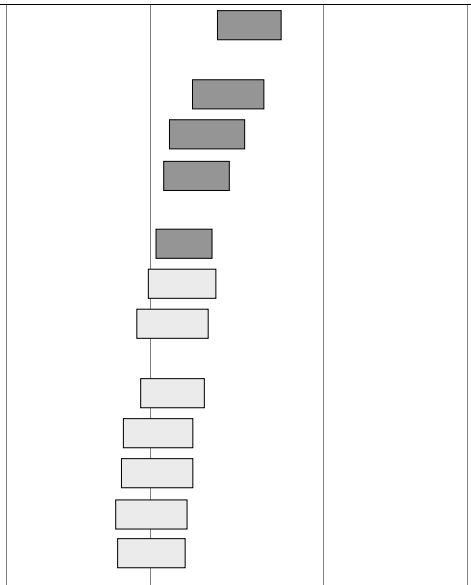
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to clozapine	7.7(1.6)	*38*	82	15	4
Switch to another of the newer atypicals	7.2(1.4)	*18*	73	25	2
Raise the dose of the newer atypical antipsychotic	5.6(2.1)	*5*	41	38	21
Decrease the dose of the newer atypical	5.2(2.2)	*4*	36	38	27
Add a selective serotonin reuptake inhibitor	4.6(1.9)	*0*	16	50	34
Add bupropion	3.9(1.9)	*0*	9	45	45
Add a dopaminergic agent (e.g., methylphenidate)	3.7(1.8)	*0*	9	39	52
No change in pharmacotherapy; intensify psychosocial treatment	3.6(2.1)	*2*	7	45	48
Combine two newer atypical antipsychotics	3.5(2.3)	*4*	13	29	59
Add cycloserine	3.4(1.9)	*0*	8	33	58
Add glycine	3.3(2.0)	*0*	11	28	62
Add an antidepressant of another class	3.3(1.6)	*0*	2	38	60
Combine a conventional and a newer atypical	3.1(1.9)	*0*	11	21	68
Add a benzodiazepine	3.0(1.7)	*0*	5	25	70
Switch to a long-acting depot antipsychotic	2.4(1.6)	*2*	2	18	80
		%	%	%	%

11 At the end of ***sequential trials of conventional antipsychotics, one or more of the newer atypical antipsychotics, and clozapine***, the patient continues to show ***prominent positive psychopathology***. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



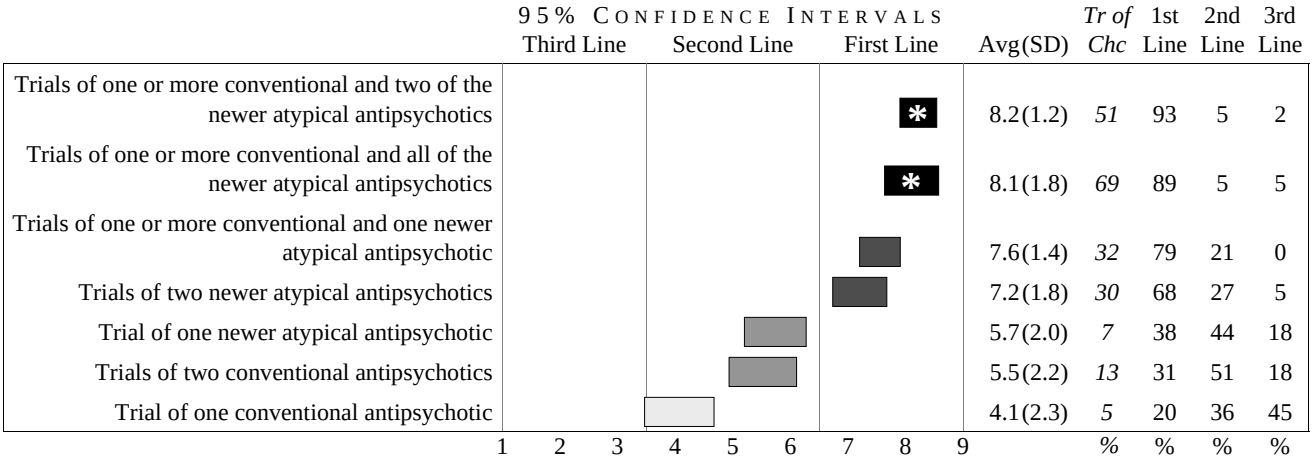
	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Add an anticonvulsant medication to clozapine				6.2(2.1)	*9*	53	34	13
Combine a conventional with clozapine				5.8(2.4)	*16*	36	48	16
Combine a newer atypical with clozapine				5.7(2.5)	*11*	45	32	23
Add lithium to clozapine				5.3(2.2)	*4*	38	40	23
Add ECT to clozapine				5.3(2.6)	*9*	40	31	29
Taper clozapine slowly and resume treatment with most effective previous medication				5.2(2.0)	*4*	36	46	18
Taper clozapine slowly and combine a conventional and a newer atypical antipsychotic				4.6(2.0)	*2*	18	46	36
Taper clozapine slowly and begin ECT				4.5(2.3)	*4*	23	39	38
Add a benzodiazepine to clozapine				4.2(2.2)	*4*	15	42	44
Taper clozapine slowly and combine a newer atypical antipsychotic and an anticonvulsant				4.2(2.0)	*0*	14	45	41
Taper clozapine and combine two newer atypicals				3.7(2.0)	*0*	11	39	50
Switch to a long-acting depot antipsychotic				3.0(1.9)	*2*	5	30	64
1 2 3 4 5 6 7 8 9					*%*	%	%	%

12 At the end of ***sequential trials of conventional antipsychotics, one or more of the newer atypical antipsychotics, and clozapine***, the patient continues to show ***prominent negative psychopathology***. Assume the patient is medication compliant and is not abusing substances. Please rate each of the following as a possible treatment strategy.



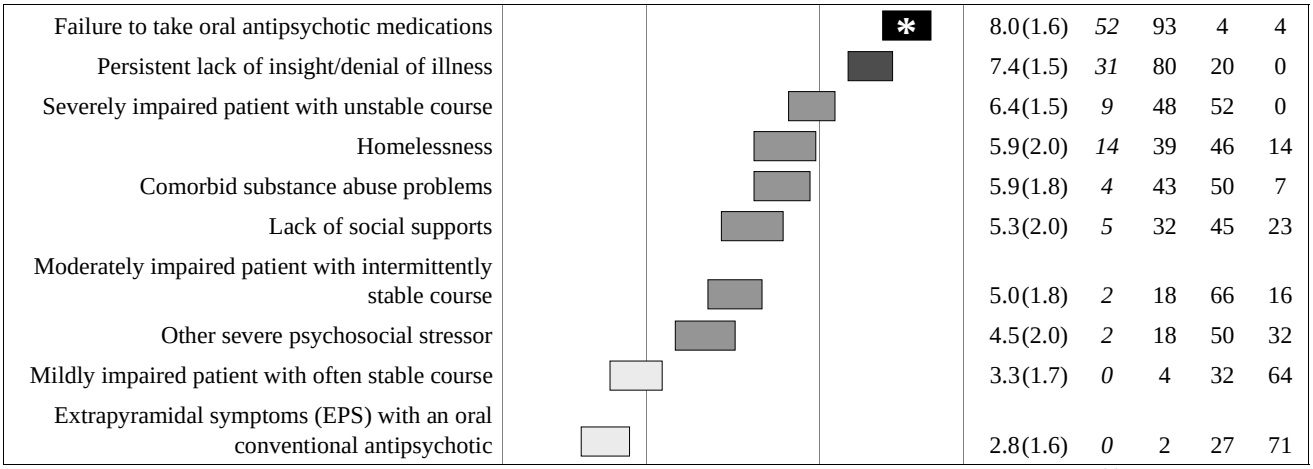
	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Add a selective serotonin reuptake inhibitor				5.2(2.1)	*7*	29	45	27
Taper clozapine slowly and resume treatment with most effective previous medication				4.9(2.4)	*4*	32	39	29
Combine a newer atypical with clozapine				4.5(2.5)	*5*	23	32	45
Add a dopaminergic agent to clozapine				4.3(2.1)	*2*	16	43	41
Taper clozapine slowly and combine a newer atypical antipsychotic and an antidepressant				4.1(1.8)	*0*	13	53	35
Add bupropion to clozapine				4.1(2.2)	*2*	18	36	46
Add ECT to clozapine				3.9(2.3)	*5*	14	38	48
Taper clozapine slowly and combine a newer atypical antipsychotic and an anticonvulsant				3.9(2.1)	*2*	11	38	52
Taper clozapine slowly and begin ECT				3.6(2.3)	*4*	16	25	59
Add cycloserine to clozapine				3.6(2.2)	*0*	13	32	55
Add glycine to clozapine				3.5(2.1)	*2*	9	38	53
Taper clozapine and combine two newer atypicals				3.5(2.2)	*4*	14	29	57
Taper clozapine slowly and combine a conventional and a newer atypical antipsychotic				3.5(1.9)	*0*	13	33	55
Add a benzodiazepine to clozapine				3.5(1.8)	*0*	9	29	62
Combine a conventional with clozapine				3.4(2.2)	*4*	9	29	62
Switch to a long-acting depot antipsychotic				2.4(1.6)	*2*	2	21	77
1 2 3 4 5 6 7 8 9					*%*	%	%	%

13 Although clozapine is usually not used as a first line medication, it can sometimes help patients when other medications have failed. Please rate the appropriateness of switching to clozapine if the patient has not responded to adequate trials of the following treatments. Assume the patient is medication compliant and is not abusing substances. Give the highest rating to the decision point after which you would be most likely to switch to clozapine.



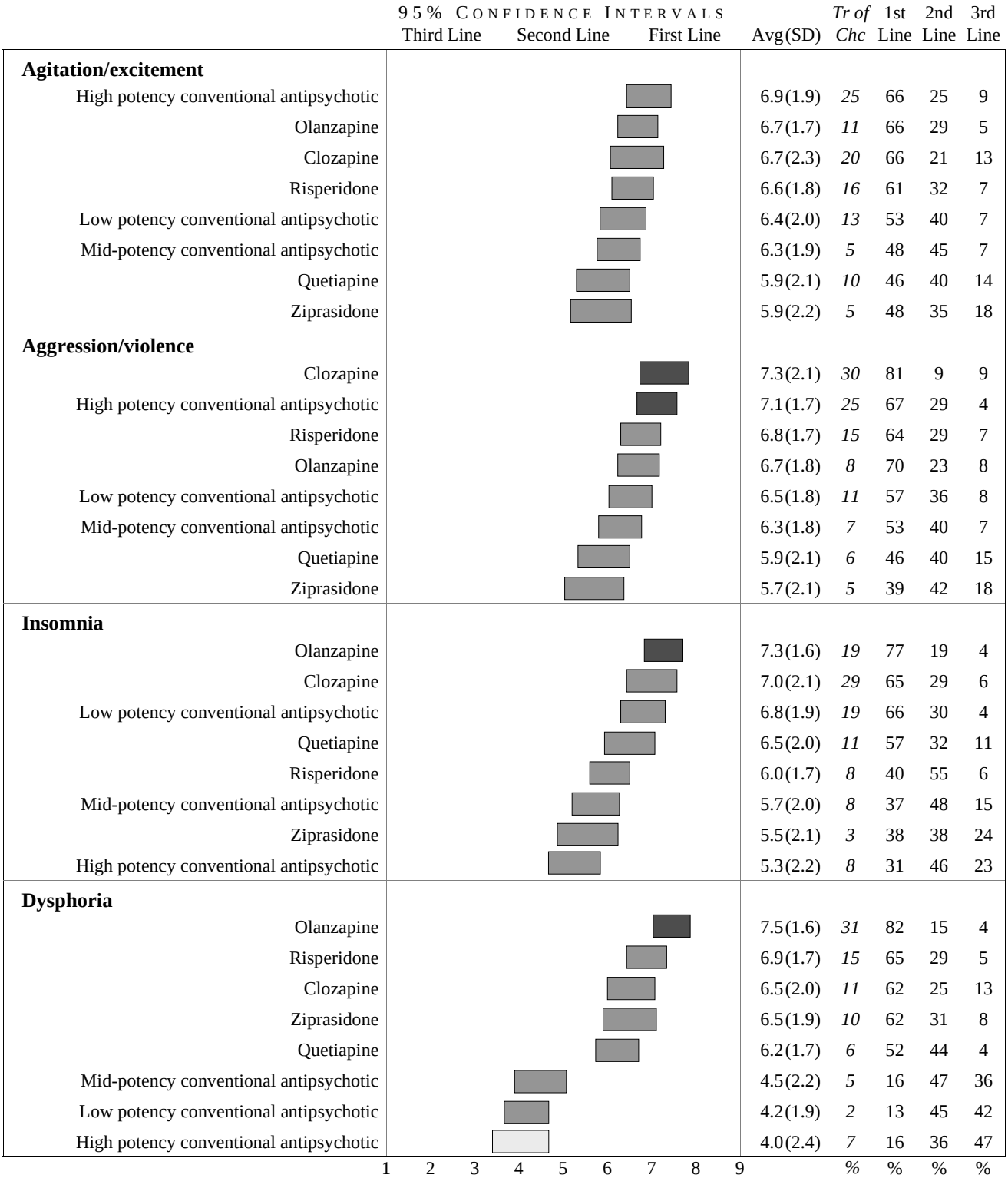
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Trials of one or more conventional and two of the newer atypical antipsychotics	8.2(1.2)	*51*	93	5	2
Trials of one or more conventional and all of the newer atypical antipsychotics	8.1(1.8)	*69*	89	5	5
Trials of one or more conventional and one newer atypical antipsychotic	7.6(1.4)	*32*	79	21	0
Trials of two newer atypical antipsychotics	7.2(1.8)	*30*	68	27	5
Trial of one newer atypical antipsychotic	5.7(2.0)	*7*	38	44	18
Trials of two conventional antipsychotics	5.5(2.2)	*13*	31	51	18
Trial of one conventional antipsychotic	4.1(2.3)	*5*	20	36	45
		%	%	%	%

14 Please rate the appropriateness of each of the following indications for switching from oral medication to a long-acting depot antipsychotic (e.g., haloperidol decanoate).



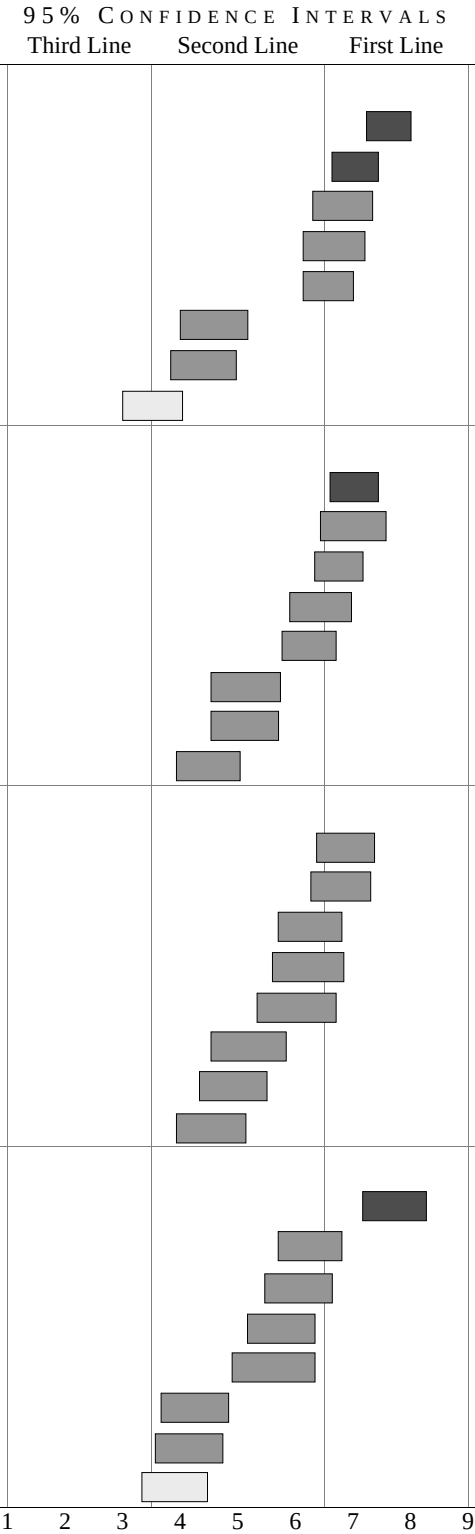
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Failure to take oral antipsychotic medications	8.0(1.6)	*52*	93	4	4
Persistent lack of insight/denial of illness	7.4(1.5)	*31*	80	20	0
Severely impaired patient with unstable course	6.4(1.5)	*9*	48	52	0
Homelessness	5.9(2.0)	*14*	39	46	14
Comorbid substance abuse problems	5.9(1.8)	*4*	43	50	7
Lack of social supports	5.3(2.0)	*5*	32	45	23
Moderately impaired patient with intermittently stable course	5.0(1.8)	*2*	18	66	16
Other severe psychosocial stressor	4.5(2.0)	*2*	18	50	32
Mildly impaired patient with often stable course	3.3(1.7)	*0*	4	32	64
Extrapyramidal symptoms (EPS) with an oral conventional antipsychotic	2.8(1.6)	*0*	2	27	71
		%	%	%	%

15 Rate the appropriateness of each of these antipsychotic medications for a patient with schizophrenia who has the following complicating problems. Adjunctive treatment strategies are asked about in Question 16.



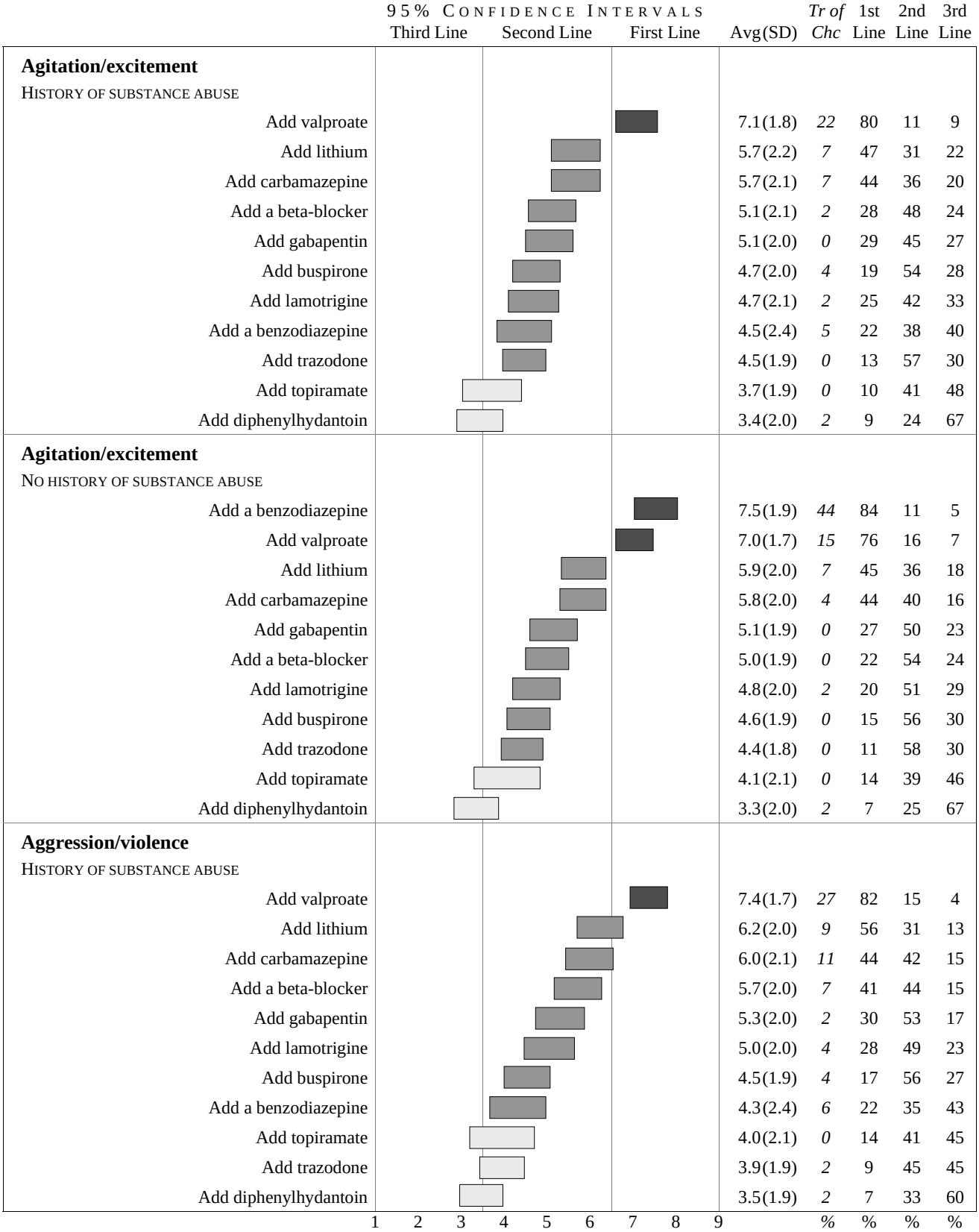
	95% Confidence Intervals Third Line / Second Line / First Line	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Agitation/excitement						
High potency conventional antipsychotic		6.9 (1.9)	*25*	66	25	9
Olanzapine		6.7 (1.7)	*11*	66	29	5
Clozapine		6.7 (2.3)	*20*	66	21	13
Risperidone		6.6 (1.8)	*16*	61	32	7
Low potency conventional antipsychotic		6.4 (2.0)	*13*	53	40	7
Mid-potency conventional antipsychotic		6.3 (1.9)	*5*	48	45	7
Quetiapine		5.9 (2.1)	*10*	46	40	14
Ziprasidone		5.9 (2.2)	*5*	48	35	18
Aggression/violence						
Clozapine		7.3 (2.1)	*30*	81	9	9
High potency conventional antipsychotic		7.1 (1.7)	*25*	67	29	4
Risperidone		6.8 (1.7)	*15*	64	29	7
Olanzapine		6.7 (1.8)	*8*	70	23	8
Low potency conventional antipsychotic		6.5 (1.8)	*11*	57	36	8
Mid-potency conventional antipsychotic		6.3 (1.8)	*7*	53	40	7
Quetiapine		5.9 (2.1)	*6*	46	40	15
Ziprasidone		5.7 (2.1)	*5*	39	42	18
Insomnia						
Olanzapine		7.3 (1.6)	*19*	77	19	4
Clozapine		7.0 (2.1)	*29*	65	29	6
Low potency conventional antipsychotic		6.8 (1.9)	*19*	66	30	4
Quetiapine		6.5 (2.0)	*11*	57	32	11
Risperidone		6.0 (1.7)	*8*	40	55	6
Mid-potency conventional antipsychotic		5.7 (2.0)	*8*	37	48	15
Ziprasidone		5.5 (2.1)	*3*	38	38	24
High potency conventional antipsychotic		5.3 (2.2)	*8*	31	46	23
Dysphoria						
Olanzapine		7.5 (1.6)	*31*	82	15	4
Risperidone		6.9 (1.7)	*15*	65	29	5
Clozapine		6.5 (2.0)	*11*	62	25	13
Ziprasidone		6.5 (1.9)	*10*	62	31	8
Quetiapine		6.2 (1.7)	*6*	52	44	4
Mid-potency conventional antipsychotic		4.5 (2.2)	*5*	16	47	36
Low potency conventional antipsychotic		4.2 (1.9)	*2*	13	45	42
High potency conventional antipsychotic		4.0 (2.4)	*7*	16	36	47
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

15 *continued*



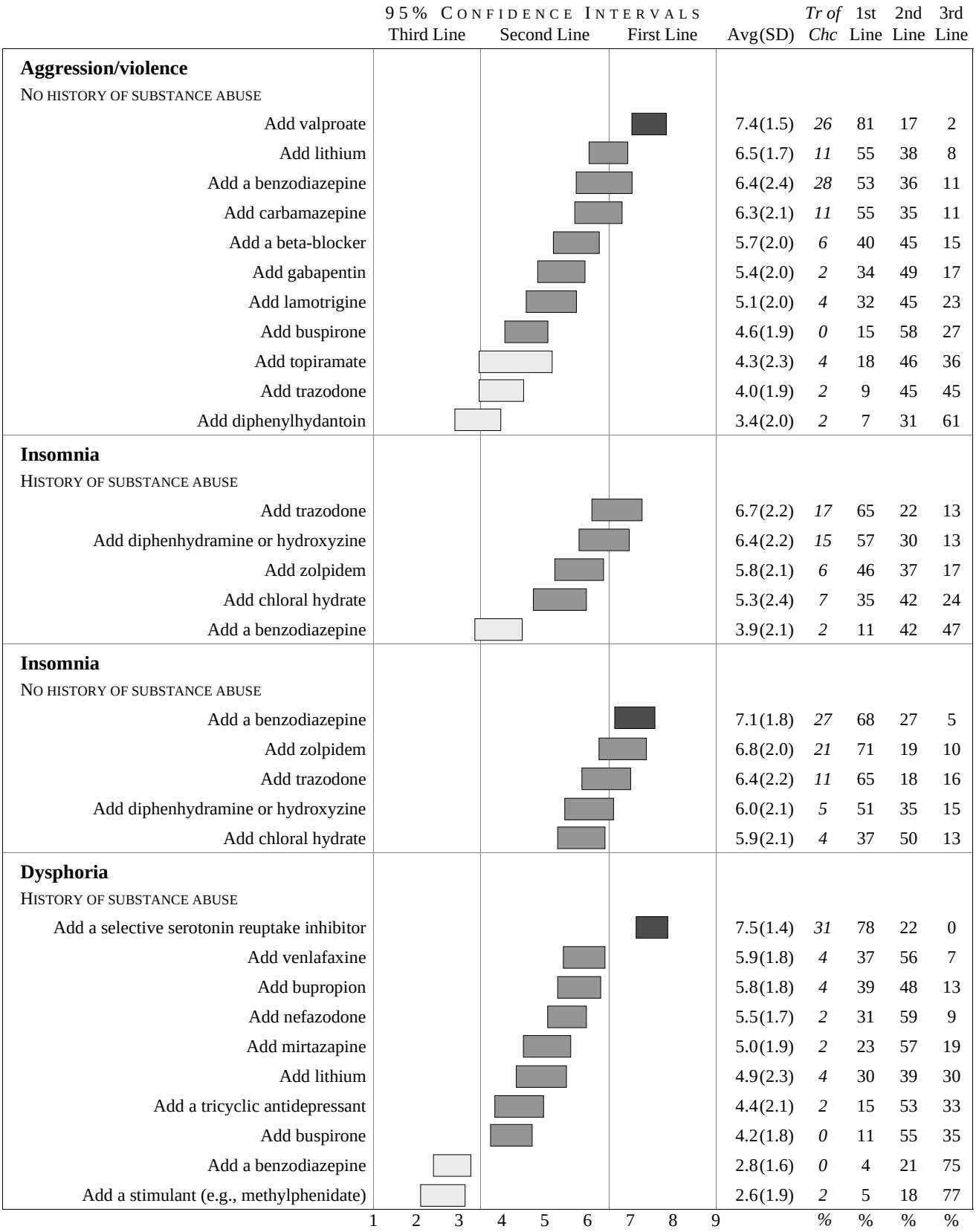
	Avg(SD)	*Tr of Chc*	1st Line %	2nd Line %	3rd Line %
Cognitive problems					
Risperidone	7.6(1.5)	*33*	85	13	2
Olanzapine	7.1(1.6)	*18*	66	32	2
Clozapine	6.8(2.0)	*20*	64	27	9
Ziprasidone	6.7(1.7)	*11*	61	37	3
Quetiapine	6.6(1.5)	*4*	59	39	2
High potency conventional antipsychotic	4.6(2.2)	*5*	21	39	39
Mid-potency conventional antipsychotic	4.4(2.2)	*2*	14	46	39
Low potency conventional antipsychotic	3.5(2.0)	*0*	9	42	49
Suicidal behavior					
Olanzapine	7.0(1.6)	*20*	69	29	2
Clozapine	7.0(2.1)	*27*	65	27	7
Risperidone	6.7(1.6)	*15*	61	37	2
Ziprasidone	6.4(1.7)	*10*	53	45	3
Quetiapine	6.3(1.7)	*10*	48	48	4
High potency conventional antipsychotic	5.1(2.3)	*9*	32	41	27
Mid-potency conventional antipsychotic	5.1(2.2)	*7*	31	42	27
Low potency conventional antipsychotic	4.5(2.1)	*4*	16	53	31
Comorbid substance abuse					
Risperidone	6.9(1.9)	*18*	65	29	5
Olanzapine	6.8(1.9)	*18*	67	27	5
Quetiapine	6.2(1.9)	*10*	50	44	6
Ziprasidone	6.2(1.9)	*11*	50	44	6
Clozapine	6.0(2.6)	*17*	50	33	17
High potency conventional antipsychotic	5.2(2.4)	*9*	36	36	27
Mid-potency conventional antipsychotic	4.9(2.2)	*5*	25	47	27
Low potency conventional antipsychotic	4.5(2.2)	*4*	17	52	31
Compulsive water drinking					
Clozapine	7.7(2.0)	*48*	86	8	6
Olanzapine	6.3(2.0)	*8*	49	45	6
Risperidone	6.1(2.1)	*10*	45	47	8
Quetiapine	5.8(2.0)	*4*	40	49	11
Ziprasidone	5.6(2.2)	*6*	40	46	14
High potency conventional antipsychotic	4.2(2.1)	*4*	14	44	42
Mid-potency conventional antipsychotic	4.2(2.1)	*2*	16	44	40
Low potency conventional antipsychotic	3.9(2.0)	*2*	10	44	46

16 A patient with schizophrenia is being treated with an adequate dose of the most appropriate antipsychotic, but continues to have one of the following complicating problems to a degree that requires adjunctive medication treatment. There are no extrapyramidal side effects. Please rate the appropriateness of the following adjunctive treatments for each of these problems.



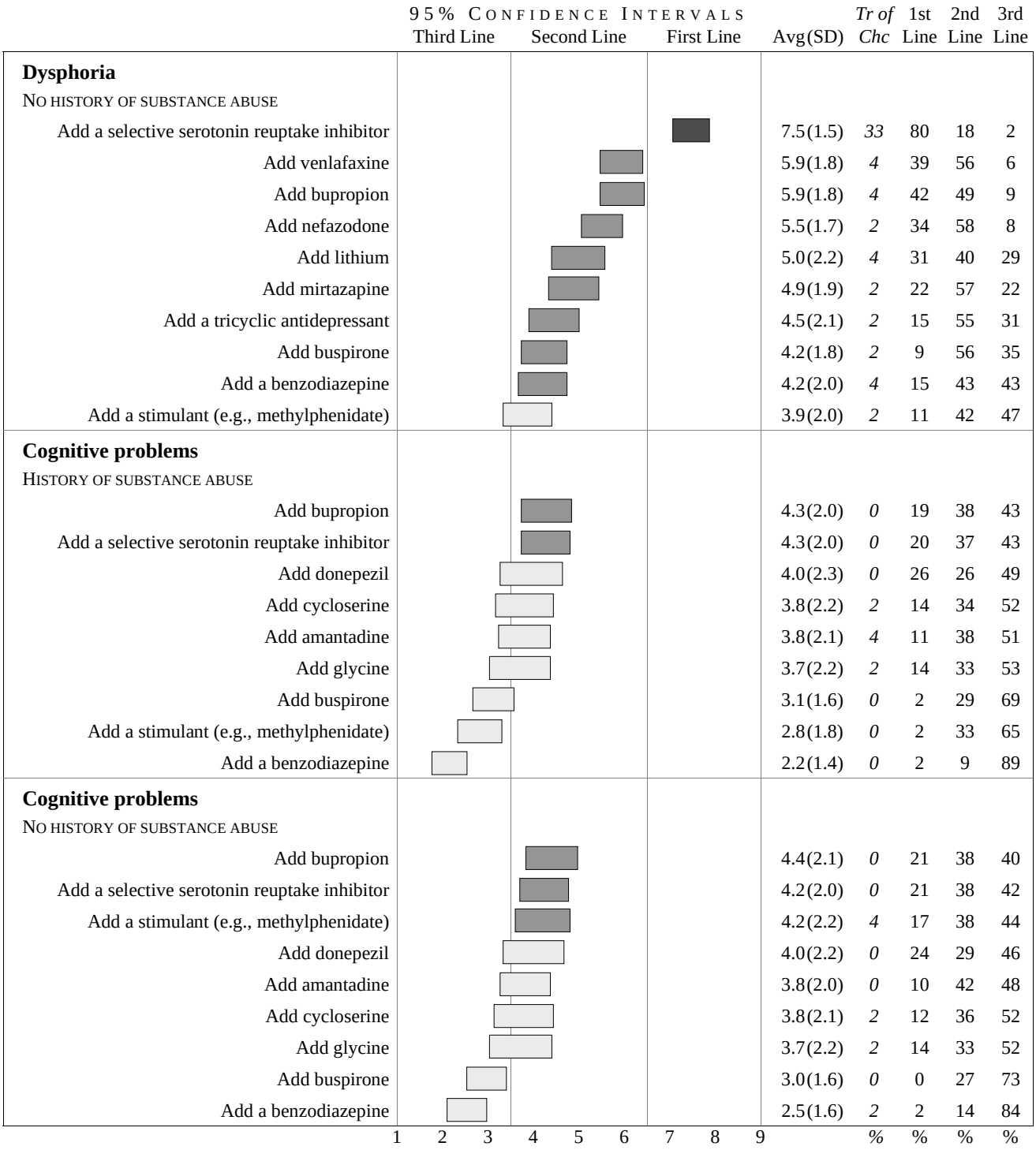
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Agitation/excitement					
HISTORY OF SUBSTANCE ABUSE					
Add valproate	7.1(1.8)	*22*	80	11	9
Add lithium	5.7(2.2)	*7*	47	31	22
Add carbamazepine	5.7(2.1)	*7*	44	36	20
Add a beta-blocker	5.1(2.1)	*2*	28	48	24
Add gabapentin	5.1(2.0)	*0*	29	45	27
Add buspirone	4.7(2.0)	*4*	19	54	28
Add lamotrigine	4.7(2.1)	*2*	25	42	33
Add a benzodiazepine	4.5(2.4)	*5*	22	38	40
Add trazodone	4.5(1.9)	*0*	13	57	30
Add topiramate	3.7(1.9)	*0*	10	41	48
Add diphenylhydantoin	3.4(2.0)	*2*	9	24	67
Agitation/excitement					
NO HISTORY OF SUBSTANCE ABUSE					
Add a benzodiazepine	7.5(1.9)	*44*	84	11	5
Add valproate	7.0(1.7)	*15*	76	16	7
Add lithium	5.9(2.0)	*7*	45	36	18
Add carbamazepine	5.8(2.0)	*4*	44	40	16
Add gabapentin	5.1(1.9)	*0*	27	50	23
Add a beta-blocker	5.0(1.9)	*0*	22	54	24
Add lamotrigine	4.8(2.0)	*2*	20	51	29
Add buspirone	4.6(1.9)	*0*	15	56	30
Add trazodone	4.4(1.8)	*0*	11	58	30
Add topiramate	4.1(2.1)	*0*	14	39	46
Add diphenylhydantoin	3.3(2.0)	*2*	7	25	67
Aggression/violence					
HISTORY OF SUBSTANCE ABUSE					
Add valproate	7.4(1.7)	*27*	82	15	4
Add lithium	6.2(2.0)	*9*	56	31	13
Add carbamazepine	6.0(2.1)	*11*	44	42	15
Add a beta-blocker	5.7(2.0)	*7*	41	44	15
Add gabapentin	5.3(2.0)	*2*	30	53	17
Add lamotrigine	5.0(2.0)	*4*	28	49	23
Add buspirone	4.5(1.9)	*4*	17	56	27
Add a benzodiazepine	4.3(2.4)	*6*	22	35	43
Add topiramate	4.0(2.1)	*0*	14	41	45
Add trazodone	3.9(1.9)	*2*	9	45	45
Add diphenylhydantoin	3.5(1.9)	*2*	7	33	60
		%	%	%	%

16 *continued*



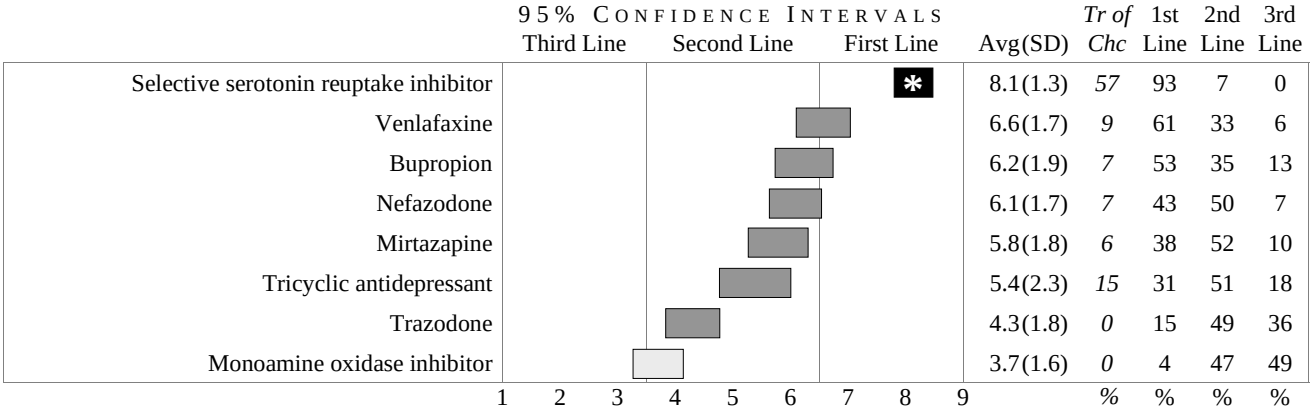
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Aggression/violence					
NO HISTORY OF SUBSTANCE ABUSE					
Add valproate	7.4(1.5)	*26*	81	17	2
Add lithium	6.5(1.7)	*11*	55	38	8
Add a benzodiazepine	6.4(2.4)	*28*	53	36	11
Add carbamazepine	6.3(2.1)	*11*	55	35	11
Add a beta-blocker	5.7(2.0)	*6*	40	45	15
Add gabapentin	5.4(2.0)	*2*	34	49	17
Add lamotrigine	5.1(2.0)	*4*	32	45	23
Add buspirone	4.6(1.9)	*0*	15	58	27
Add topiramate	4.3(2.3)	*4*	18	46	36
Add trazodone	4.0(1.9)	*2*	9	45	45
Add diphenylhydantoin	3.4(2.0)	*2*	7	31	61
Insomnia					
HISTORY OF SUBSTANCE ABUSE					
Add trazodone	6.7(2.2)	*17*	65	22	13
Add diphenhydramine or hydroxyzine	6.4(2.2)	*15*	57	30	13
Add zolpidem	5.8(2.1)	*6*	46	37	17
Add chloral hydrate	5.3(2.4)	*7*	35	42	24
Add a benzodiazepine	3.9(2.1)	*2*	11	42	47
Insomnia					
NO HISTORY OF SUBSTANCE ABUSE					
Add a benzodiazepine	7.1(1.8)	*27*	68	27	5
Add zolpidem	6.8(2.0)	*21*	71	19	10
Add trazodone	6.4(2.2)	*11*	65	18	16
Add diphenhydramine or hydroxyzine	6.0(2.1)	*5*	51	35	15
Add chloral hydrate	5.9(2.1)	*4*	37	50	13
Dysphoria					
HISTORY OF SUBSTANCE ABUSE					
Add a selective serotonin reuptake inhibitor	7.5(1.4)	*31*	78	22	0
Add venlafaxine	5.9(1.8)	*4*	37	56	7
Add bupropion	5.8(1.8)	*4*	39	48	13
Add nefazodone	5.5(1.7)	*2*	31	59	9
Add mirtazapine	5.0(1.9)	*2*	23	57	19
Add lithium	4.9(2.3)	*4*	30	39	30
Add a tricyclic antidepressant	4.4(2.1)	*2*	15	53	33
Add buspirone	4.2(1.8)	*0*	11	55	35
Add a benzodiazepine	2.8(1.6)	*0*	4	21	75
Add a stimulant (e.g., methylphenidate)	2.6(1.9)	*2*	5	18	77
		%	%	%	%

16 *continued*



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Dysphoria					
NO HISTORY OF SUBSTANCE ABUSE					
Add a selective serotonin reuptake inhibitor	7.5 (1.5)	*33*	80	18	2
Add venlafaxine	5.9 (1.8)	*4*	39	56	6
Add bupropion	5.9 (1.8)	*4*	42	49	9
Add nefazodone	5.5 (1.7)	*2*	34	58	8
Add lithium	5.0 (2.2)	*4*	31	40	29
Add mirtazapine	4.9 (1.9)	*2*	22	57	22
Add a tricyclic antidepressant	4.5 (2.1)	*2*	15	55	31
Add buspirone	4.2 (1.8)	*2*	9	56	35
Add a benzodiazepine	4.2 (2.0)	*4*	15	43	43
Add a stimulant (e.g., methylphenidate)	3.9 (2.0)	*2*	11	42	47
Cognitive problems					
HISTORY OF SUBSTANCE ABUSE					
Add bupropion	4.3 (2.0)	*0*	19	38	43
Add a selective serotonin reuptake inhibitor	4.3 (2.0)	*0*	20	37	43
Add donepezil	4.0 (2.3)	*0*	26	26	49
Add cycloserine	3.8 (2.2)	*2*	14	34	52
Add amantadine	3.8 (2.1)	*4*	11	38	51
Add glycine	3.7 (2.2)	*2*	14	33	53
Add buspirone	3.1 (1.6)	*0*	2	29	69
Add a stimulant (e.g., methylphenidate)	2.8 (1.8)	*0*	2	33	65
Add a benzodiazepine	2.2 (1.4)	*0*	2	9	89
Cognitive problems					
NO HISTORY OF SUBSTANCE ABUSE					
Add bupropion	4.4 (2.1)	*0*	21	38	40
Add a selective serotonin reuptake inhibitor	4.2 (2.0)	*0*	21	38	42
Add a stimulant (e.g., methylphenidate)	4.2 (2.2)	*4*	17	38	44
Add donepezil	4.0 (2.2)	*0*	24	29	46
Add amantadine	3.8 (2.0)	*0*	10	42	48
Add cycloserine	3.8 (2.1)	*2*	12	36	52
Add glycine	3.7 (2.2)	*2*	14	33	52
Add buspirone	3.0 (1.6)	*0*	0	27	73
Add a benzodiazepine	2.5 (1.6)	*2*	2	14	84
		%	%	%	%

17 Please rate each of the following antidepressants as a treatment for ***postpsychotic depression*** in a patient with schizophrenia. Interview and examination for extrapyramidal symptoms are negative and neither positive nor negative psychopathology is prominent.

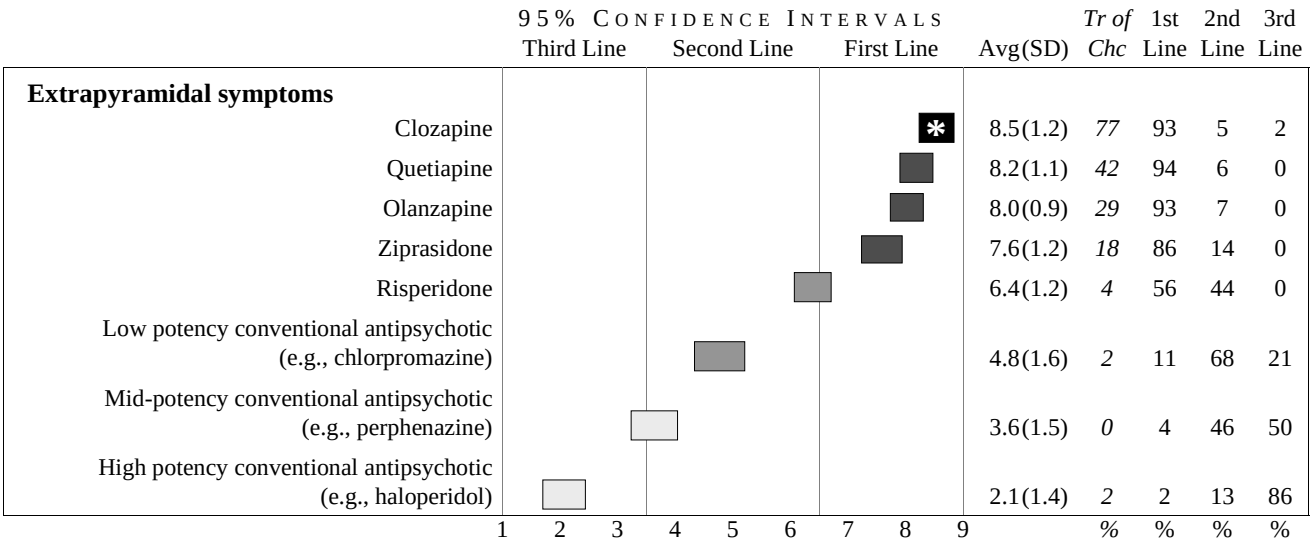


	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Selective serotonin reuptake inhibitor	8.1(1.3)	*57*	93	7	0
Venlafaxine	6.6(1.7)	*9*	61	33	6
Bupropion	6.2(1.9)	*7*	53	35	13
Nefazodone	6.1(1.7)	*7*	43	50	7
Mirtazapine	5.8(1.8)	*6*	38	52	10
Tricyclic antidepressant	5.4(2.3)	*15*	31	51	18
Trazodone	4.3(1.8)	*0*	15	49	36
Monoamine oxidase inhibitor	3.7(1.6)	*0*	4	47	49
		%	%	%	%

18 A patient with schizophrenia becomes depressed during maintenance treatment and responds to the addition of an antidepressant. How long would you continue the antidepressant, from the time the patient responds, before trying to taper and discontinue it?

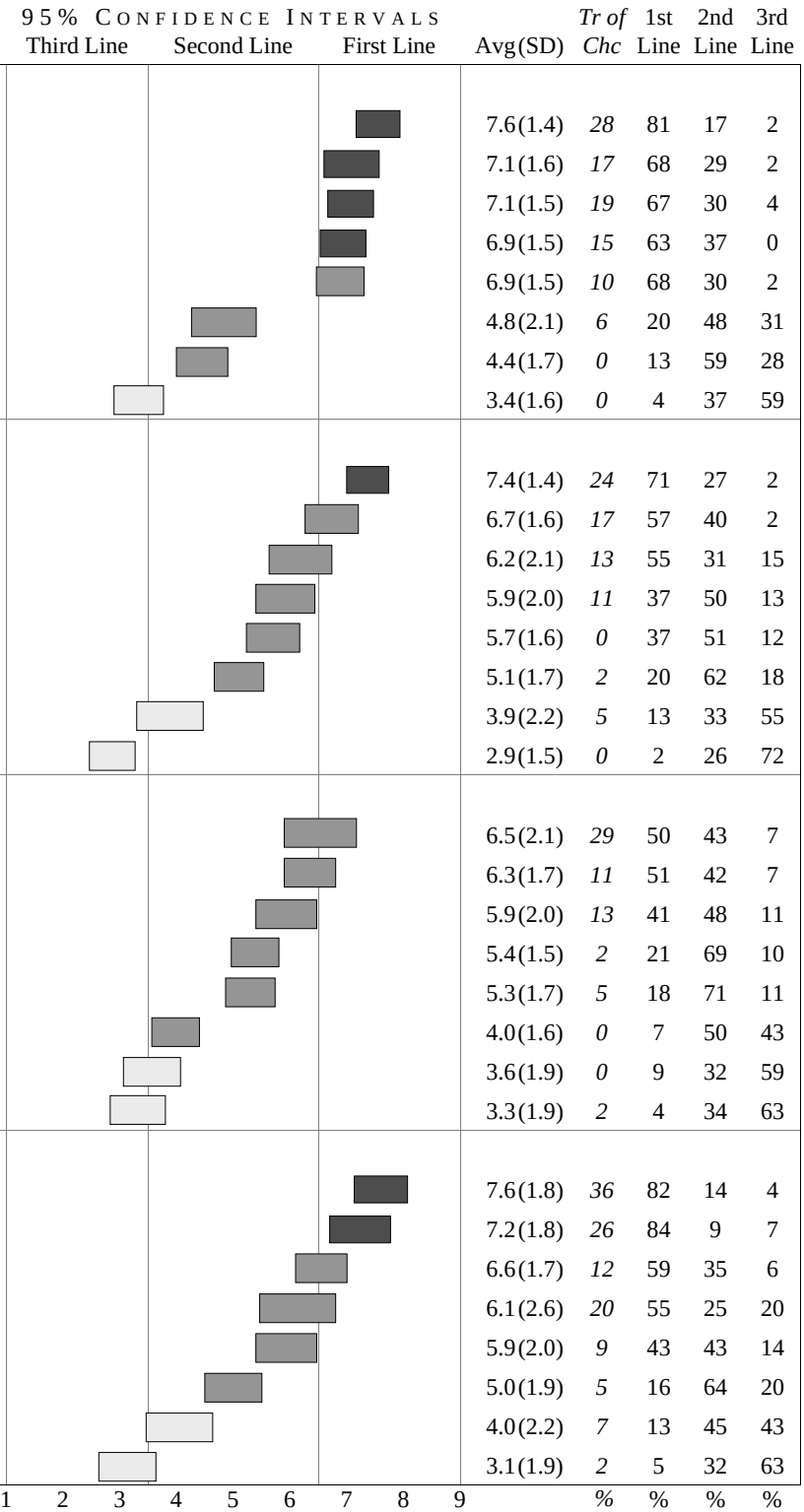
	Avg(SD)
Longest time	16.3(10.0) months
Shortest time	6.6(4.7) months

19 Rate the appropriateness of the different antipsychotic medications for a patient for whom it is important to ***avoid*** the following side effects. **Give your highest ratings to the drugs that are least likely to cause these problems.** Assume the patient is receiving an average therapeutic dose of the antipsychotic medication.



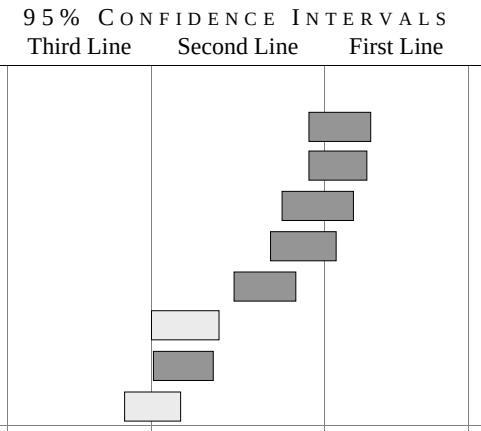
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Extrapyramidal symptoms					
Clozapine	8.5(1.2)	*77*	93	5	2
Quetiapine	8.2(1.1)	*42*	94	6	0
Olanzapine	8.0(0.9)	*29*	93	7	0
Ziprasidone	7.6(1.2)	*18*	86	14	0
Risperidone	6.4(1.2)	*4*	56	44	0
Low potency conventional antipsychotic (e.g., chlorpromazine)	4.8(1.6)	*2*	11	68	21
Mid-potency conventional antipsychotic (e.g., perphenazine)	3.6(1.5)	*0*	4	46	50
High potency conventional antipsychotic (e.g., haloperidol)	2.1(1.4)	*2*	2	13	86
		%	%	%	%

19 *continued*



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Cognitive side effects					
Risperidone	7.6 (1.4)	*28*	81	17	2
Ziprasidone	7.1 (1.6)	*17*	68	29	2
Olanzapine	7.1 (1.5)	*19*	67	30	4
Clozapine	6.9 (1.5)	*15*	63	37	0
Quetiapine	6.9 (1.5)	*10*	68	30	2
High potency conventional antipsychotic	4.8 (2.1)	*6*	20	48	31
Mid-potency conventional antipsychotic	4.4 (1.7)	*0*	13	59	28
Low potency conventional antipsychotic	3.4 (1.6)	*0*	4	37	59
Persistent sedation					
Risperidone	7.4 (1.4)	*24*	71	27	2
Ziprasidone	6.7 (1.6)	*17*	57	40	2
High potency conventional antipsychotic	6.2 (2.1)	*13*	55	31	15
Olanzapine	5.9 (2.0)	*11*	37	50	13
Quetiapine	5.7 (1.6)	*0*	37	51	12
Mid-potency conventional antipsychotic	5.1 (1.7)	*2*	20	62	18
Clozapine	3.9 (2.2)	*5*	13	33	55
Low potency conventional antipsychotic	2.9 (1.5)	*0*	2	26	72
Weight gain					
Ziprasidone	6.5 (2.1)	*29*	50	43	7
Risperidone	6.3 (1.7)	*11*	51	42	7
High potency conventional antipsychotic	5.9 (2.0)	*13*	41	48	11
Quetiapine	5.4 (1.5)	*2*	21	69	10
Mid-potency conventional antipsychotic	5.3 (1.7)	*5*	18	71	11
Low potency conventional antipsychotic	4.0 (1.6)	*0*	7	50	43
Olanzapine	3.6 (1.9)	*0*	9	32	59
Clozapine	3.3 (1.9)	*2*	4	34	63
Anticholinergic side effects					
Risperidone	7.6 (1.8)	*36*	82	14	4
Ziprasidone	7.2 (1.8)	*26*	84	9	7
Quetiapine	6.6 (1.7)	*12*	59	35	6
High potency conventional antipsychotic	6.1 (2.6)	*20*	55	25	20
Olanzapine	5.9 (2.0)	*9*	43	43	14
Mid-potency conventional antipsychotic	5.0 (1.9)	*5*	16	64	20
Clozapine	4.0 (2.2)	*7*	13	45	43
Low potency conventional antipsychotic	3.1 (1.9)	*2*	5	32	63
		%	%	%	%

19 *continued*

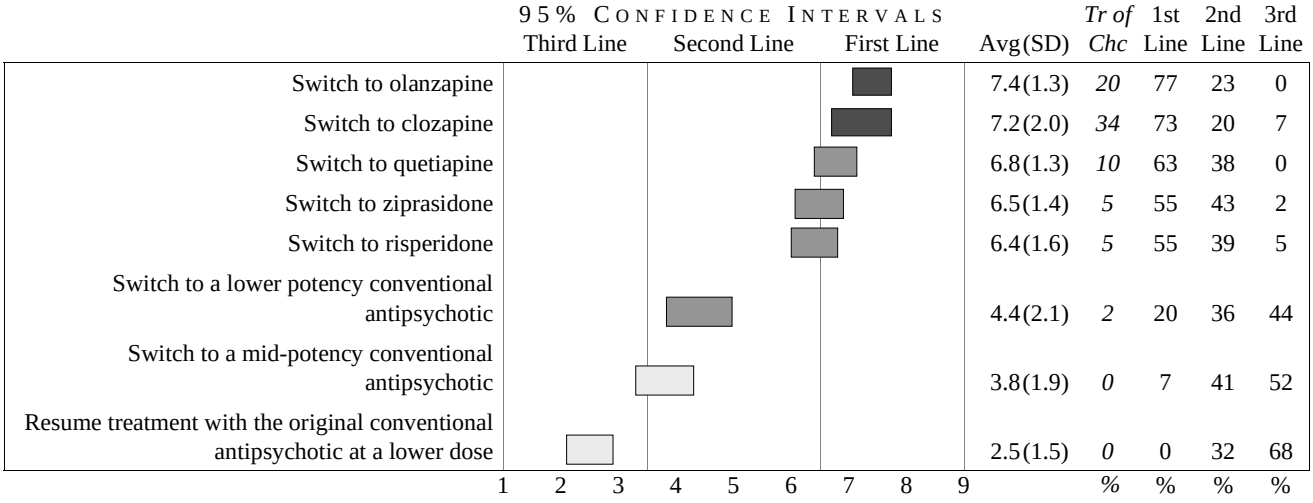


	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Sexual/reproductive side effects					
Quetiapine	6.8(1.8)	*13*	69	24	7
Olanzapine	6.7(1.9)	*13*	68	26	6
Ziprasidone	6.4(1.9)	*11*	62	27	11
Clozapine	6.1(2.1)	*12*	51	35	14
Risperidone	5.5(2.0)	*4*	34	45	21
High potency conventional antipsychotic	4.1(2.1)	*6*	15	38	47
Mid-potency conventional antipsychotic	4.1(1.9)	*2*	11	49	40
Low potency conventional antipsychotic	3.5(1.8)	*2*	2	45	53
Cardiovascular side effects					
Risperidone	7.0(1.5)	*20*	63	36	2
Olanzapine	6.9(1.6)	*18*	59	39	2
High potency conventional antipsychotic	6.7(2.0)	*18*	65	27	7
Quetiapine	6.4(1.7)	*12*	49	47	4
Ziprasidone	5.8(2.2)	*12*	38	40	21
Mid-potency conventional antipsychotic	5.7(1.7)	*7*	27	66	7
Clozapine	4.4(2.1)	*4*	18	40	42
Low potency conventional antipsychotic	3.8(1.9)	*5*	7	34	59
Prevention of tardive dyskinesia					
Clozapine	8.6(0.7)	*75*	100	0	0
Quetiapine	7.2(1.2)	*12*	78	22	0
Olanzapine	7.2(1.1)	*11*	73	27	0
Ziprasidone	6.9(1.2)	*7*	72	28	0
Risperidone	6.0(1.5)	*2*	43	52	5
Low potency conventional antipsychotic	2.7(1.5)	*0*	0	29	71
Mid-potency conventional antipsychotic	2.4(1.3)	*0*	0	20	80
High potency conventional antipsychotic	1.9(1.0)	*0*	0	9	91
		%	%	%	%

20 Please write in the average interval at which you believe a patient maintained on antipsychotic medication should be monitored (e.g., AIMS Examination) for the development of tardive dyskinesia (TD).

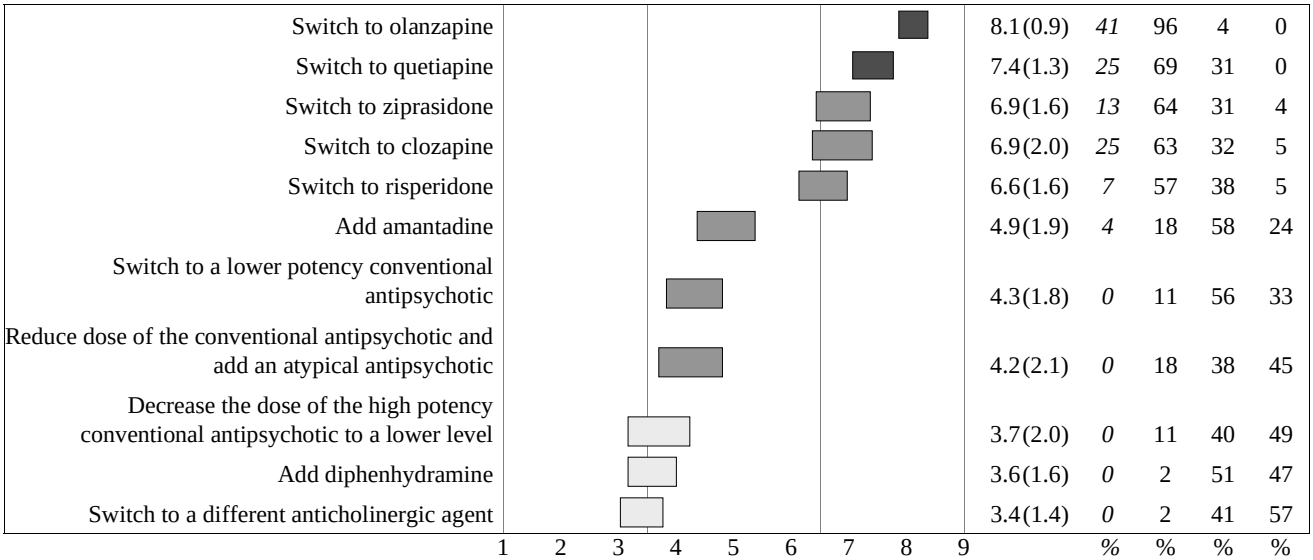
	Avg(SD)
If patient is on ***clozapine***, monitor for TD every	8.7(6.2) months
If patient is on a ***newer atypical antipsychotic***, monitor for TD every	6.5(3.2) months
If patient is on a ***conventional antipsychotic***, monitor for TD every	4.3(2.3) months

21 A patient with chronic schizophrenia developed ***neuroleptic malignant syndrome*** (NMS) during treatment with a high potency conventional antipsychotic. The conventional antipsychotic was discontinued and the patient recovered from the episode of NMS. The patient is now becoming psychotic again. Please rate the following treatment strategies for this patient.



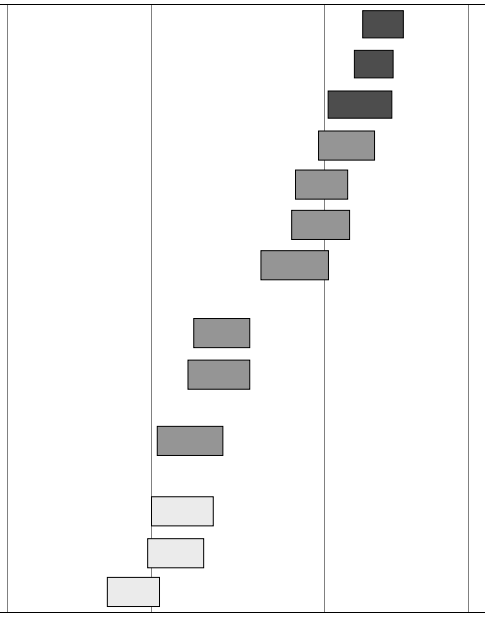
	95% Confidence Intervals (Third Line / Second Line / First Line)	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to olanzapine		7.4(1.3)	*20*	77	23	0
Switch to clozapine		7.2(2.0)	*34*	73	20	7
Switch to quetiapine		6.8(1.3)	*10*	63	38	0
Switch to ziprasidone		6.5(1.4)	*5*	55	43	2
Switch to risperidone		6.4(1.6)	*5*	55	39	5
Switch to a lower potency conventional antipsychotic		4.4(2.1)	*2*	20	36	44
Switch to a mid-potency conventional antipsychotic		3.8(1.9)	*0*	7	41	52
Resume treatment with the original conventional antipsychotic at a lower dose		2.5(1.5)	*0*	0	32	68
1 2 3 4 5 6 7 8 9			%	%	%	%

22 A patient treated with a high potency conventional antipsychotic at the lowest dose that you believe will be effective develops persistent, distressing ***bradykinesia and muscle rigidity***, despite concomitant treatment with an anticholinergic antiparkinsonsian agent at the highest dose the patient can tolerate. Please rate each of the following treatment strategies for this problem.



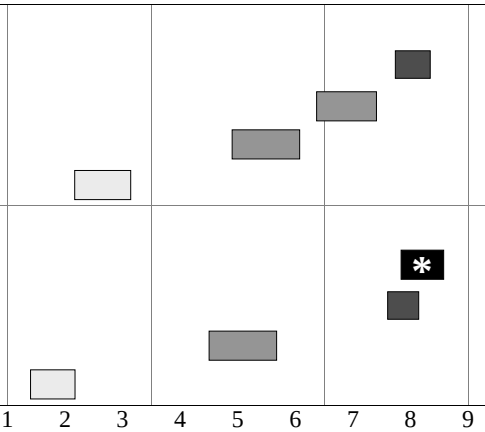
	95% Confidence Intervals (Third Line / Second Line / First Line)	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to olanzapine		8.1(0.9)	*41*	96	4	0
Switch to quetiapine		7.4(1.3)	*25*	69	31	0
Switch to ziprasidone		6.9(1.6)	*13*	64	31	4
Switch to clozapine		6.9(2.0)	*25*	63	32	5
Switch to risperidone		6.6(1.6)	*7*	57	38	5
Add amantadine		4.9(1.9)	*4*	18	58	24
Switch to a lower potency conventional antipsychotic		4.3(1.8)	*0*	11	56	33
Reduce dose of the conventional antipsychotic and add an atypical antipsychotic		4.2(2.1)	*0*	18	38	45
Decrease the dose of the high potency conventional antipsychotic to a lower level		3.7(2.0)	*0*	11	40	49
Add diphenhydramine		3.6(1.6)	*0*	2	51	47
Switch to a different anticholinergic agent		3.4(1.4)	*0*	2	41	57
1 2 3 4 5 6 7 8 9			%	%	%	%

23 A patient treated with a high potency conventional antipsychotic at the lowest dose that you believe will be effective develops persistent, distressing ***akathisia***, despite concomitant treatment with an anticholinergic antiparkinsonsian agent at the highest dose the patient can tolerate. Please rate each of the following treatment strategies for this problem.



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Switch to olanzapine	7.5(1.3)	*27*	79	20	2
Switch to quetiapine	7.4(1.3)	*21*	71	29	0
Add a beta-blocker	7.1(2.1)	*36*	65	27	7
Switch to ziprasidone	6.9(1.7)	*11*	73	20	7
Switch to risperidone	6.5(1.6)	*9*	51	43	6
Switch to clozapine	6.4(1.9)	*11*	56	35	9
Add a benzodiazepine	6.0(2.2)	*16*	43	41	16
Switch to a lower potency conventional antipsychotic	4.7(1.8)	*2*	13	64	23
Add amantadine	4.7(2.0)	*0*	20	49	31
Decrease the dose of high potency conventional antipsychotic to a lower than usual level	4.2(2.1)	*0*	15	48	37
Reduce dose of the conventional antipsychotic and add an atypical antipsychotic	4.0(2.0)	*0*	16	34	50
Add diphenhydramine	3.9(1.8)	*0*	7	45	47
Switch to a different anticholinergic agent	3.2(1.7)	*0*	7	30	63
		%	%	%	%

24 A patient with chronic schizophrenia develops ***tardive dyskinesia*** (TD) during maintenance treatment with a conventional antipsychotic. You decrease the dose of the conventional antipsychotic to the lowest dose that you believe will be effective, but 3 months later the tardive dyskinesia is still present. Please rate the following treatment strategies.



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
For mild TD					
Switch to a newer atypical antipsychotic	8.0(1.1)	*39*	93	7	0
Switch to clozapine	6.9(2.0)	*29*	60	35	5
Add Vitamin E to conventional antipsychotic	5.5(2.2)	*9*	38	41	21
No change in pharmacotherapy	2.7(1.9)	*0*	4	20	77
For severe TD					
Switch to clozapine	8.2(1.4)	*63*	93	5	2
Switch to a newer atypical antipsychotic	7.9(1.0)	*31*	87	13	0
Add Vitamin E to conventional antipsychotic	5.1(2.2)	*9*	27	47	25
No change in pharmacotherapy	1.8(1.5)	*2*	2	7	91
		%	%	%	%

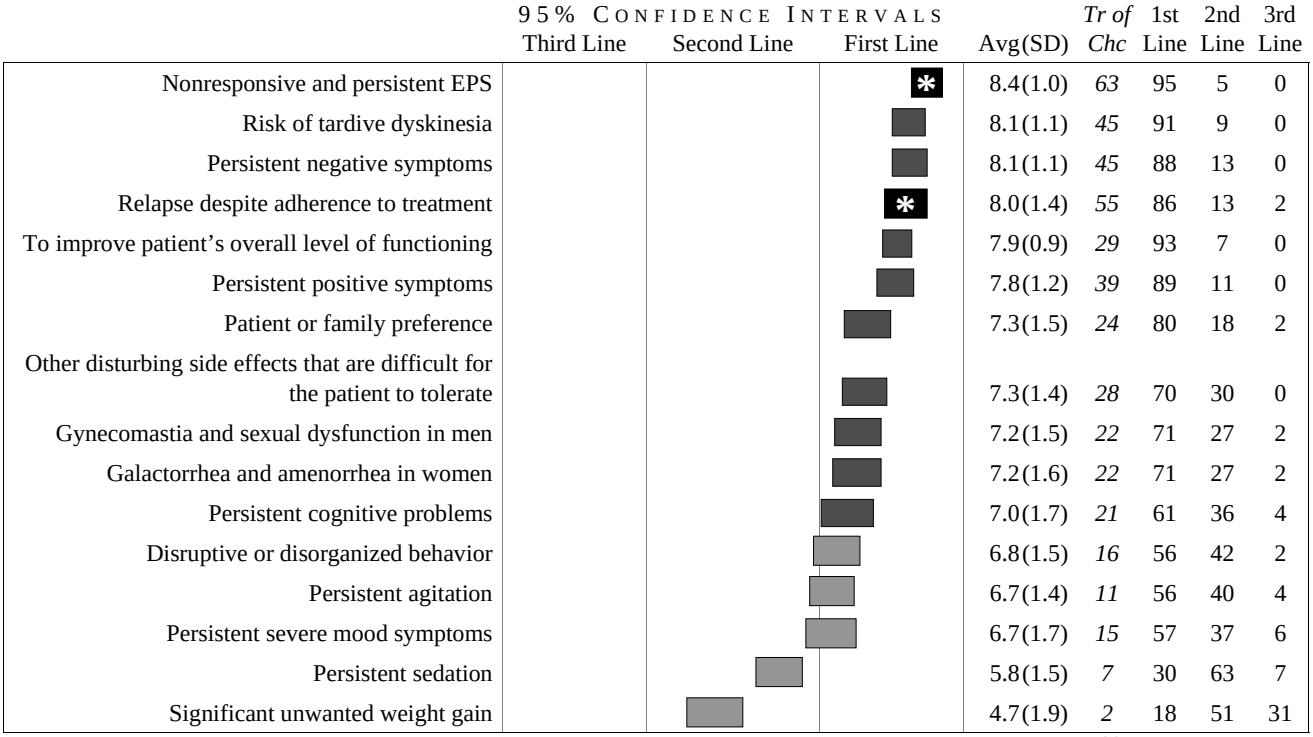
25 ***Adequate Dose***. Please write in the ***average dose*** (total mg per 24 hours) you recommend for each of the following medications to ensure an adequate trial in a medically healthy young adult with schizophrenia during both acute and maintenance treatment. Also indicate the average length of time you would wait (in weeks) to see if there is an adequate response before deciding to switch to another antipsychotic.

	Acute Treatment					Maintenance
		Average target dose (mg/day)				
Medication	Starting dose (mg/day) Avg(SD)	First episode Avg(SD)	Recurrence Avg(SD)	Highest final dose (mg/day) Avg(SD)	Average length of an adequate trial (weeks) Avg(SD)	Average maintenance dose (mg/day) Avg(SD)
Haloperidol	4.9(3.5)	7.6(4.1)	11.2(6.1)	23.3(13.6)	6.5(2.7)	8.6(3.7)
Fluphenazine	5.4(4.8)	9.2(6.7)	13.2(7.8)	27.9(23.0)	6.6(2.7)	9.6(4.6)
Perphenazine	11.8(9.4)	20.4(10.9)	35.1(43.5)	56.2(36.6)	6.7(2.8)	22.3(10.7)
Thioridazine	129.1(89.9)	277.8(126.3)	411.9(147.7)	641.0(206.2)	6.7(2.7)	310.9(126.0)
Olanzapine	8.1(3.2)	12.5(4.8)	18.2(5.7)	28.2(8.1)	7.5(3.9)	14.9(3.6)
Ziprasidone	68.0(47.7)	102.9(39.9)	164.0(74.5)	197.1(119.2)	7.5(3.7)	109.7(61.6)
Quetiapine	103.2(104.8)	298.0(112.5)	436.8(116.1)	663.5(109.1)	7.2(3.1)	350.6(118.0)
Risperidone	2.2(1.2)	4.1(1.6)	5.7(1.6)	9.9(3.1)	7.1(3.1)	4.8(1.9)
Clozapine	55.9(81.0)	301.8(109.3)	424.0(131.1)	794.3(152.4)	12.0(6.2)	394.1(146.4)

26 Please write in the average steady state maintenance doses you recommend for each of the following medications for a patient with schizophrenia during maintenance treatment.

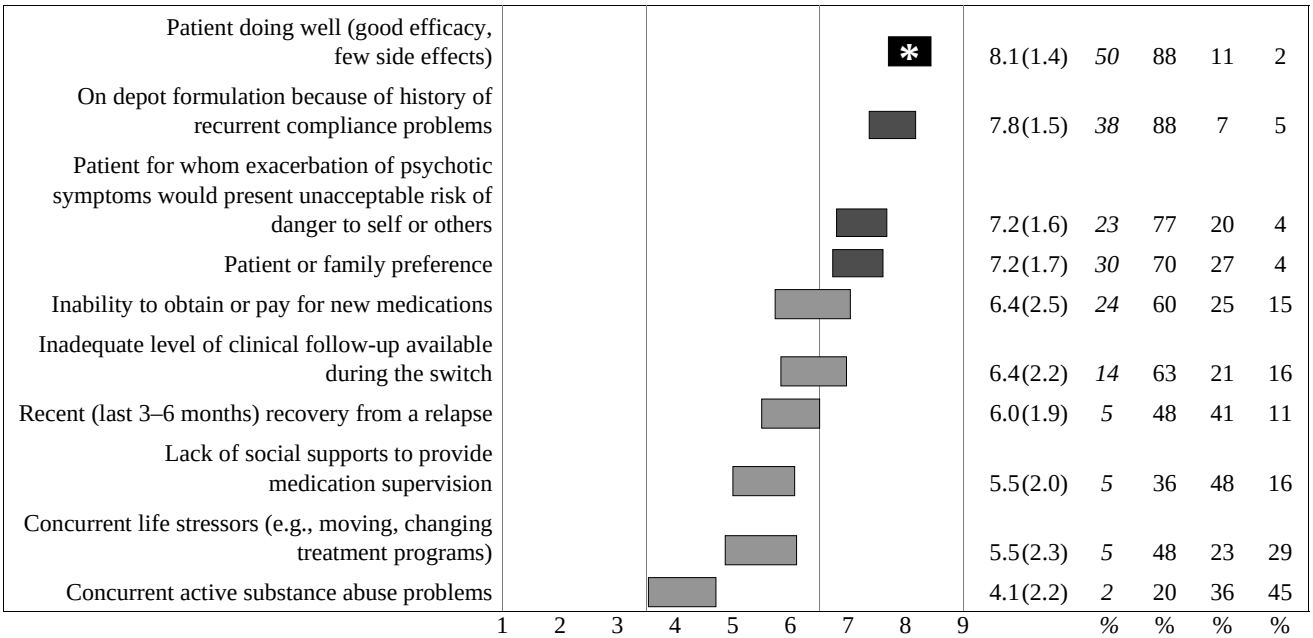
	Avg(SD)
depot haloperidol	116.5(61.4) mg/month
depot fluphenazine	25.9(10.1) mg every 2–3 weeks

27 Rate the importance of each of the following factors as a reason for ***switching*** a patient with schizophrenia from a conventional to a newer atypical antipsychotic. Assume an optimal therapeutic dose of the conventional antipsychotic and that the patient has been taking it as prescribed.



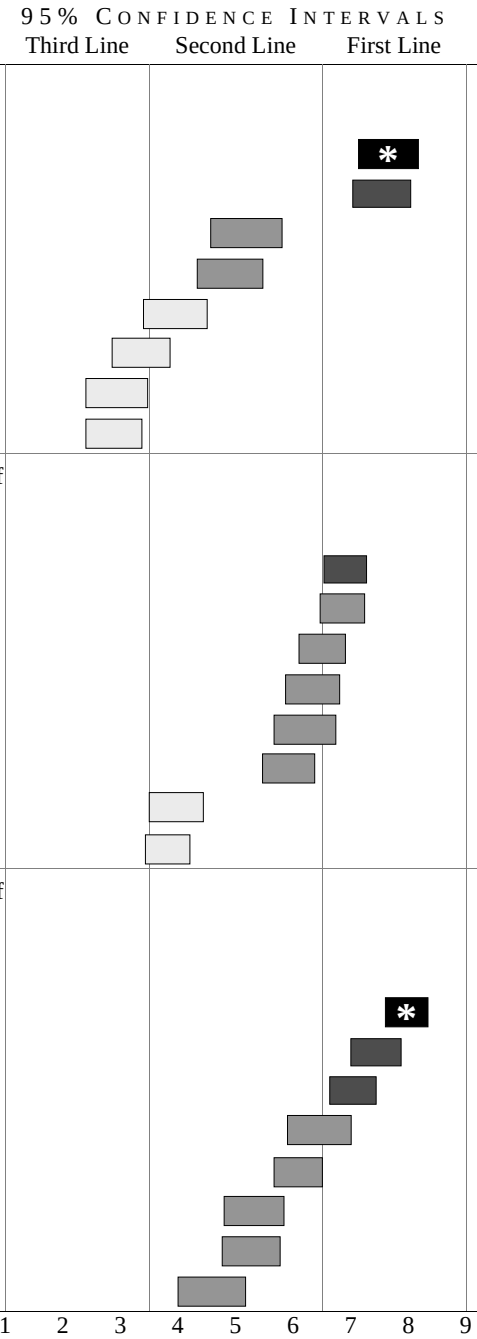
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Nonresponsive and persistent EPS	8.4(1.0)	*63*	95	5	0
Risk of tardive dyskinesia	8.1(1.1)	*45*	91	9	0
Persistent negative symptoms	8.1(1.1)	*45*	88	13	0
Relapse despite adherence to treatment	8.0(1.4)	*55*	86	13	2
To improve patient's overall level of functioning	7.9(0.9)	*29*	93	7	0
Persistent positive symptoms	7.8(1.2)	*39*	89	11	0
Patient or family preference	7.3(1.5)	*24*	80	18	2
Other disturbing side effects that are difficult for the patient to tolerate	7.3(1.4)	*28*	70	30	0
Gynecomastia and sexual dysfunction in men	7.2(1.5)	*22*	71	27	2
Galactorrhea and amenorrhea in women	7.2(1.6)	*22*	71	27	2
Persistent cognitive problems	7.0(1.7)	*21*	61	36	4
Disruptive or disorganized behavior	6.8(1.5)	*16*	56	42	2
Persistent agitation	6.7(1.4)	*11*	56	40	4
Persistent severe mood symptoms	6.7(1.7)	*15*	57	37	6
Persistent sedation	5.8(1.5)	*7*	30	63	7
Significant unwanted weight gain	4.7(1.9)	*2*	18	51	31
		%	%	%	%

28 Rate the importance of each of the following factors as a reason for ***not switching*** a patient with schizophrenia from a conventional to a newer atypical antipsychotic. Assume an optimal therapeutic dose of the conventional antipsychotic and that the patient has been taking it as prescribed.



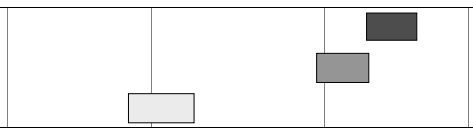
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Patient doing well (good efficacy, few side effects)	8.1(1.4)	*50*	88	11	2
On depot formulation because of history of recurrent compliance problems	7.8(1.5)	*38*	88	7	5
Patient for whom exacerbation of psychotic symptoms would present unacceptable risk of danger to self or others	7.2(1.6)	*23*	77	20	4
Patient or family preference	7.2(1.7)	*30*	70	27	4
Inability to obtain or pay for new medications	6.4(2.5)	*24*	60	25	15
Inadequate level of clinical follow-up available during the switch	6.4(2.2)	*14*	63	21	16
Recent (last 3–6 months) recovery from a relapse	6.0(1.9)	*5*	48	41	11
Lack of social supports to provide medication supervision	5.5(2.0)	*5*	36	48	16
Concurrent life stressors (e.g., moving, changing treatment programs)	5.5(2.3)	*5*	48	23	29
Concurrent active substance abuse problems	4.1(2.2)	*2*	20	36	45
		%	%	%	%

29 The following three methods can be used in ***switching*** from one antipsychotic to another. Give your highest ratings to the factors that you think are an advantage of each of these switching strategies. See definitions below before answering.



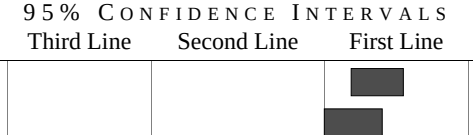
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Stop the old/start the new (discontinue the first medication and then begin the second)					
Simplicity	7.7(2.0)	*52*	80	14	5
Reduced risk of medication errors	7.5(1.9)	*43*	79	16	5
Reduced risk of side effects	5.2(2.3)	*7*	30	43	28
Patient and family acceptability	4.9(2.1)	*8*	19	57	25
Clinician comfort	4.0(2.1)	*2*	15	41	44
Reduced risk of insomnia/agitation	3.4(1.9)	*0*	5	40	55
Reduced risk of withdrawal effects	2.9(2.0)	*4*	9	15	76
Reduced risk of relapse	2.9(1.8)	*2*	5	16	78
Cross-titration (gradually decrease the dose of the first medication while simultaneously gradually increasing the dose of the second)					
Reduced risk of withdrawal effects	6.9(1.4)	*16*	64	36	0
Reduced risk of relapse	6.8(1.4)	*15*	59	41	0
Reduced risk of insomnia/agitation	6.5(1.5)	*9*	55	45	0
Reduced risk of side effects	6.3(1.8)	*16*	42	55	4
Clinician comfort	6.2(2.0)	*11*	55	32	13
Patient and family acceptability	5.9(1.7)	*6*	42	53	6
Simplicity	3.9(1.7)	*0*	7	51	42
Reduced risk of medication errors	3.8(1.5)	*0*	4	45	51
Overlap and taper (continue the same dose of the first medication while gradually bringing the second up to therapeutic level, then taper the first medication)					
Reduced risk of relapse	8.0(1.4)	*50*	88	11	2
Reduced risk of withdrawal effects	7.4(1.6)	*27*	84	11	5
Reduced risk of insomnia/agitation	7.1(1.5)	*24*	67	31	2
Clinician comfort	6.5(2.1)	*15*	56	33	11
Patient and family acceptability	6.1(1.6)	*4*	43	51	6
Simplicity	5.3(2.0)	*5*	29	55	16
Reduced risk of medication errors	5.2(1.8)	*6*	23	60	17
Reduced risk of side effects	4.6(2.2)	*5*	29	33	38
		%	%	%	%

30 Rate your overall preference for each of the three methods of switching antipsychotics ***when the switch does not involve clozapine***.



	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Cross-titration				7.7(1.7)	*48*	77	23	0
Overlap and taper				6.8(1.7)	*16*	63	34	4
Stop the old/start the new				3.7(2.2)	*2*	16	23	61
1 2 3 4 5 6 7 8 9					%	%	%	%

31 Rate your overall preference for each of the three methods of switching antipsychotics ***when the switch does involve clozapine***.



	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Cross-titration				7.4(1.7)	*36*	77	20	4
Overlap and taper				7.0(1.9)	*27*	70	23	7
Stop the old/start the new				2.7(2.0)	*0*	9	16	75
1 2 3 4 5 6 7 8 9					%	%	%	%

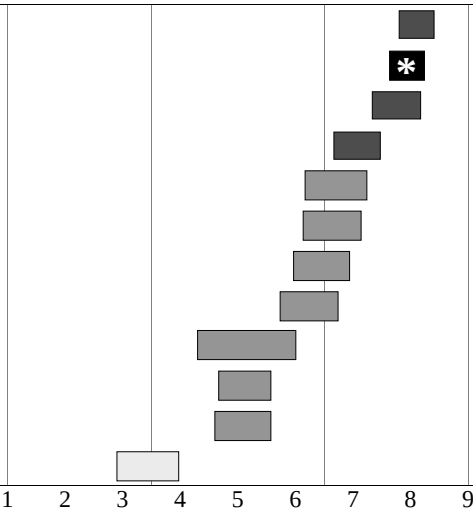
32 Please write in the average number of weeks you prefer for a complete switch from one antipsychotic to another ***if the switch does not involve clozapine***.

Avg(SD)
4.4(3.4) weeks

33 Please write in the average number of weeks you prefer for a complete switch from one antipsychotic to another ***if the switch does involve clozapine***.

Avg(SD)
7.6(5.9) weeks

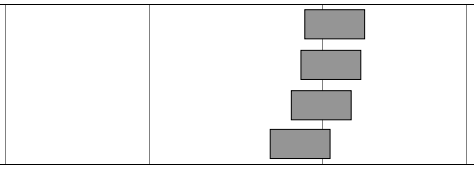
34 There is considerable disagreement in the field concerning how much time to take in switching antipsychotics. To what degree do the following factors affect your decision to do a slower than usual switch from one antipsychotic to another. Give your highest ratings to the factors that would favor a ***slower switch***.



	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
History of violence or aggression				8.1(1.1)	*43*	93	5	2
History of suicide risk				8.0(1.4)	*50*	89	9	2
Severe illness				7.7(1.6)	*41*	84	13	4
Taking high dosage of first antipsychotic				7.1(1.5)	*18*	70	29	2
Limited availability of clinical monitoring				6.7(2.0)	*21*	59	32	9
Patient/family preference				6.6(1.9)	*18*	60	31	9
Presence of life stressor				6.5(1.9)	*14*	57	34	9
Limited social supports				6.2(1.9)	*13*	48	41	11
Life-threatening or very severe side effects				5.1(3.2)	*29*	42	13	45
Concurrent substance abuse				5.1(1.7)	*5*	18	66	16
Taking anticholinergic medication				5.1(1.9)	*4*	23	52	25
Patient in hospital				3.4(2.0)	*4*	9	21	70
1 2 3 4 5 6 7 8 9					%	%	%	%

35 During cross-titration from one antipsychotic to another, the patient develops disturbing insomnia, agitation, and/or anxiety. Rate the appropriateness of the following strategies for the short-term management of these problems.

	95% Confidence Intervals (Third Line / Second Line / First Line)	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Add a benzodiazepine		6.7(1.9)	*20*	61	32	7
Increase the dose of the first medication		6.6(2.0)	*23*	57	38	5
Increase monitoring and reassurance		6.5(2.0)	*16*	59	32	9
Increase the dose of the new medication		6.1(1.9)	*9*	46	41	13
1 2 3 4 5 6 7 8 9			*%*	%	%	%



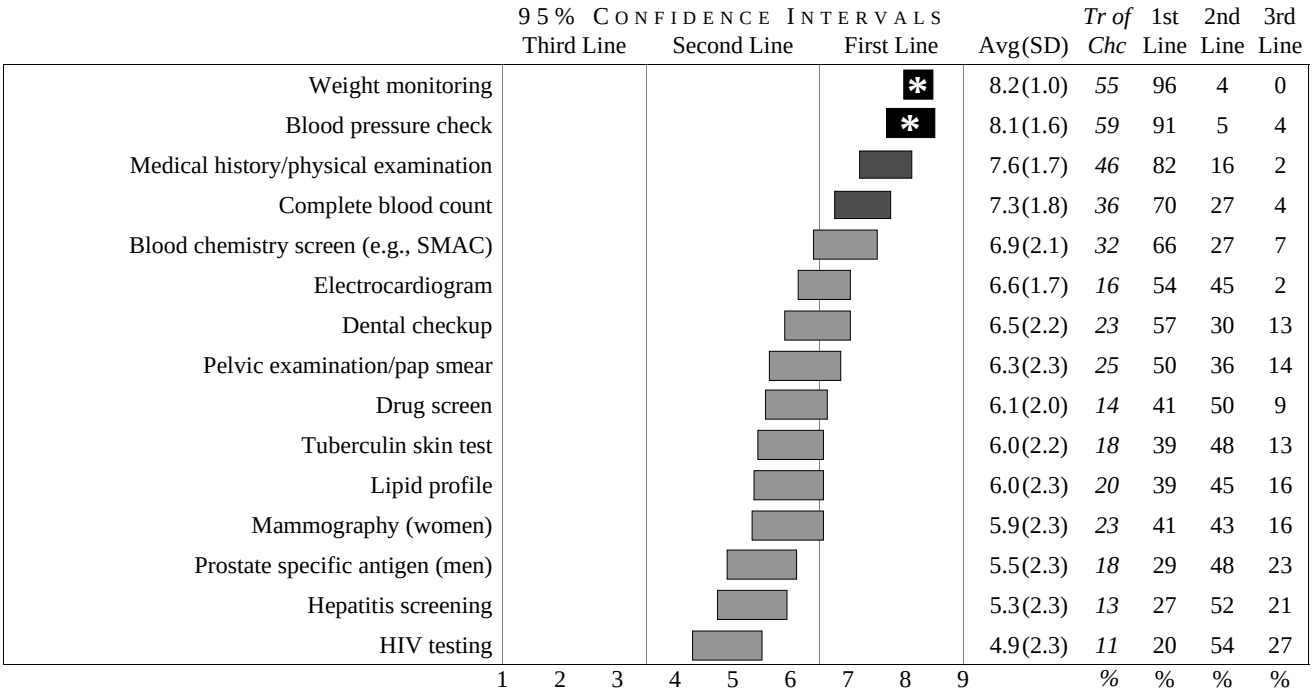
36 When you are switching a patient who was taking both a conventional antipsychotic and an anticholinergic agent to a newer atypical, how many days would you recommend continuing the anticholinergic agent after you have discontinued the conventional antipsychotic?

Avg(SD)
8.8(6.7) days

37 Rate the appropriateness of the following indications for hospitalizing a patient with schizophrenia.

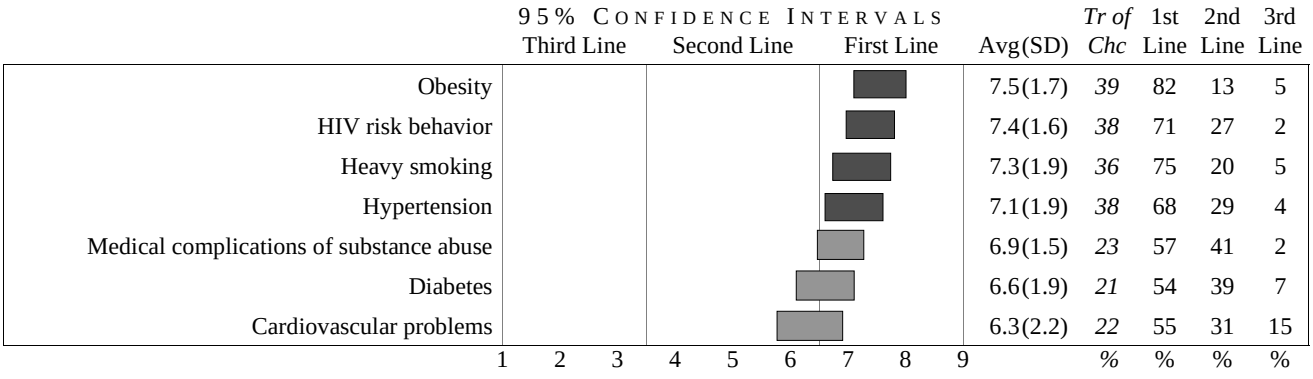
	95% Confidence Intervals (Third Line / Second Line / First Line)	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Risk of harm to others		8.8(0.4)	*86*	100	0	0
Risk of suicide		8.8(0.4)	*86*	100	0	0
Severe disorganization		7.2(1.3)	*20*	71	29	0
Acute psychotic symptoms		7.0(1.3)	*13*	63	38	0
Risk of accidental injury		6.9(1.3)	*9*	63	36	2
Persistently refractory to outpatient treatment		6.1(1.7)	*4*	45	46	9
Concurrent medical illness		5.8(1.4)	*0*	34	61	5
Lack of sufficient external support from family and treatment system		5.7(1.5)	*2*	27	62	11
Not taking medications as outpatient		5.6(1.5)	*2*	30	61	9
Risk of being lost to follow-up		5.2(1.8)	*2*	23	57	20
Concurrent substance abuse		5.2(1.8)	*2*	22	64	15
Need for medication adjustment		4.3(1.5)	*0*	7	52	41
1 2 3 4 5 6 7 8 9			*%*	%	%	%

38 Please rate the appropriateness of including each of the following ***tests*** as part of an annual routine screening for patients in maintenance treatment for chronic schizophrenia.



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Weight monitoring	8.2(1.0)	*55*	96	4	0
Blood pressure check	8.1(1.6)	*59*	91	5	4
Medical history/physical examination	7.6(1.7)	*46*	82	16	2
Complete blood count	7.3(1.8)	*36*	70	27	4
Blood chemistry screen (e.g., SMAC)	6.9(2.1)	*32*	66	27	7
Electrocardiogram	6.6(1.7)	*16*	54	45	2
Dental checkup	6.5(2.2)	*23*	57	30	13
Pelvic examination/pap smear	6.3(2.3)	*25*	50	36	14
Drug screen	6.1(2.0)	*14*	41	50	9
Tuberculin skin test	6.0(2.2)	*18*	39	48	13
Lipid profile	6.0(2.3)	*20*	39	45	16
Mammography (women)	5.9(2.3)	*23*	41	43	16
Prostate specific antigen (men)	5.5(2.3)	*18*	29	48	23
Hepatitis screening	5.3(2.3)	*13*	27	52	21
HIV testing	4.9(2.3)	*11*	20	54	27
		%	%	%	%

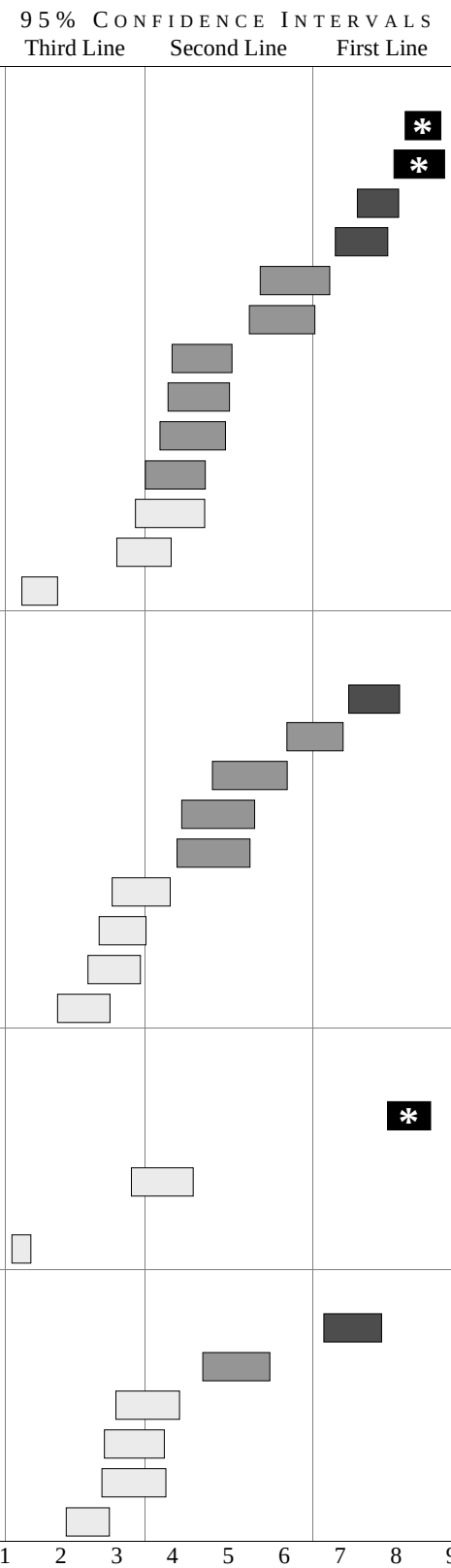
39 Given real-world limitations, rate the appropriateness of having the psychiatric treatment team routinely monitor for the following comorbid medical conditions and risk factors.



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Obesity	7.5(1.7)	*39*	82	13	5
HIV risk behavior	7.4(1.6)	*38*	71	27	2
Heavy smoking	7.3(1.9)	*36*	75	20	5
Hypertension	7.1(1.9)	*38*	68	29	4
Medical complications of substance abuse	6.9(1.5)	*23*	57	41	2
Diabetes	6.6(1.9)	*21*	54	39	7
Cardiovascular problems	6.3(2.2)	*22*	55	31	15
		%	%	%	%

1 **First episode patient:** Rate the importance of each of the following outpatient treatment components for a patient with schizophrenia who is having a **first episode**.

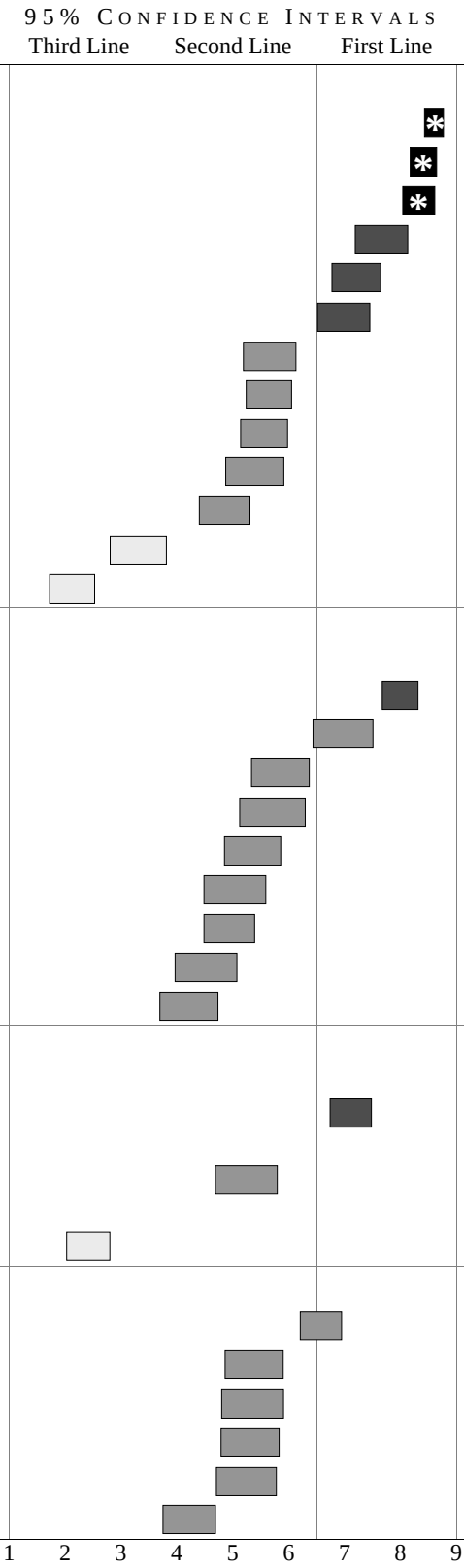
During acute episode



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Medication and symptom monitoring	8.5 (1.3)	*75*	95	3	2
Assist with obtaining medication	7.8 (1.8)	*54*	80	13	7
Collaborative decision making with patient	7.7 (1.5)	*45*	76	24	0
Patient and family education	7.4 (1.9)	*45*	73	23	5
Assist with obtaining services and resources	6.2 (2.5)	*26*	55	26	19
Supportive/reality oriented individual therapy	6.0 (2.4)	*21*	45	39	16
Supportive/reality oriented group therapy	4.5 (2.1)	*2*	20	44	36
Training and assistance with daily living	4.5 (2.2)	*7*	20	44	36
Arrange for supervision of financial resources	4.4 (2.3)	*7*	21	41	38
Peer support/self-help group	4.0 (2.2)	*5*	13	40	47
Involuntary outpatient commitment	4.0 (2.4)	*3*	20	25	55
Cognitive and social skills training	3.5 (2.0)	*3*	6	32	61
Psychodynamic psychotherapy	1.6 (1.3)	*2*	2	5	94
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	7.6 (1.8)	*48*	77	19	3
Intensive partial hospitalization	6.6 (2.0)	*16*	61	31	8
Case management	5.4 (2.7)	*13*	48	25	27
Assertive community treatment	4.8 (2.7)	*16*	26	35	39
MD appointments only	4.7 (2.6)	*10*	29	32	39
Psychiatric rehabilitation	3.4 (2.1)	*2*	15	21	64
Psychosocial rehabilitation	3.1 (1.7)	*0*	7	23	70
Aftercare day treatment	3.0 (1.9)	*0*	5	30	66
Vocational rehabilitation	2.3 (1.5)	*0*	2	18	80
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	8.2 (1.5)	*65*	89	8	3
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	3.8 (2.3)	*3*	10	42	48
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	1.3 (0.7)	*0*	0	2	98
RESIDENTIAL SETTINGS					
Brief respite/crisis home	7.2 (2.1)	*36*	74	18	8
Living with family	5.1 (2.4)	*8*	35	32	32
Transitional group home	3.6 (2.3)	*6*	11	27	61
Supervised or supported apartment	3.3 (2.2)	*2*	11	27	61
Independent living	3.3 (2.3)	*2*	13	25	62
Foster or boarding home	2.5 (1.6)	*0*	2	19	79
		%	%	%	%

1 **First episode patient**, *continued*

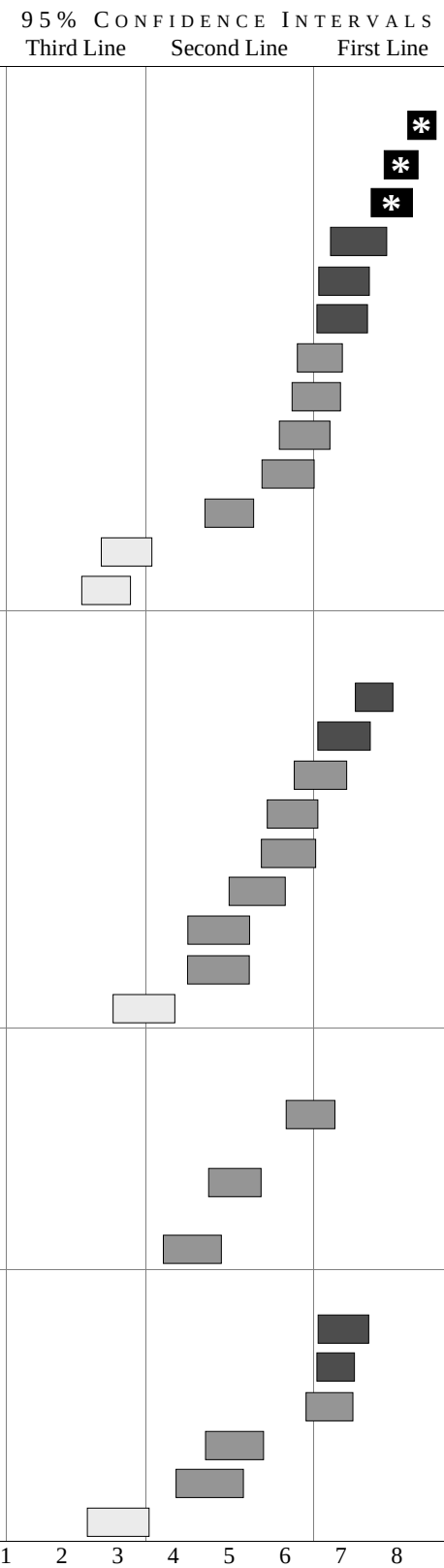
During early post-episode resolution



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Patient and family education	8.6(0.7)	*69*	98	2	0
Collaborative decision making with patient	8.4(1.0)	*66*	97	3	0
Medication and symptom monitoring	8.3(1.2)	*65*	89	11	0
Assist with obtaining medication	7.7(1.9)	*49*	79	15	7
Assist with obtaining services and resources	7.2(1.7)	*29*	71	24	5
Supportive/reality oriented individual therapy	7.0(1.9)	*24*	65	31	5
Peer support/self-help group	5.7(1.9)	*6*	39	47	15
Training and assistance with daily living	5.7(1.7)	*3*	33	56	11
Supportive/reality oriented group therapy	5.6(1.7)	*0*	31	56	13
Cognitive and social skills training	5.4(2.1)	*6*	39	44	18
Arrange for supervision of financial resources	4.9(1.8)	*0*	20	59	21
Involuntary outpatient commitment	3.3(2.0)	*2*	8	28	63
Psychodynamic psychotherapy	2.1(1.6)	*2*	3	13	84
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	8.0(1.3)	*48*	85	15	0
Case management	7.0(2.1)	*31*	69	25	7
Intensive partial hospitalization	5.9(2.0)	*10*	45	37	18
Assertive community treatment	5.7(2.3)	*19*	39	39	23
Psychiatric rehabilitation	5.4(2.0)	*7*	31	48	21
Aftercare day treatment	5.0(2.2)	*5*	30	42	28
Psychosocial rehabilitation	4.9(1.8)	*5*	13	62	25
MD appointments only	4.5(2.3)	*5*	21	42	37
Vocational rehabilitation	4.2(2.1)	*3*	15	45	40
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	7.1(1.5)	*21*	68	31	2
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	5.2(2.2)	*8*	31	44	26
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	2.4(1.6)	*0*	2	16	82
RESIDENTIAL SETTINGS					
Living with family	6.6(1.5)	*10*	57	39	3
Brief respite/crisis home	5.4(2.1)	*7*	27	53	20
Transitional group home	5.4(2.2)	*7*	36	41	23
Supervised or supported apartment	5.3(2.1)	*8*	26	57	16
Independent living	5.3(2.1)	*8*	28	50	22
Foster or boarding home	4.2(1.9)	*0*	11	57	31
		%	%	%	%

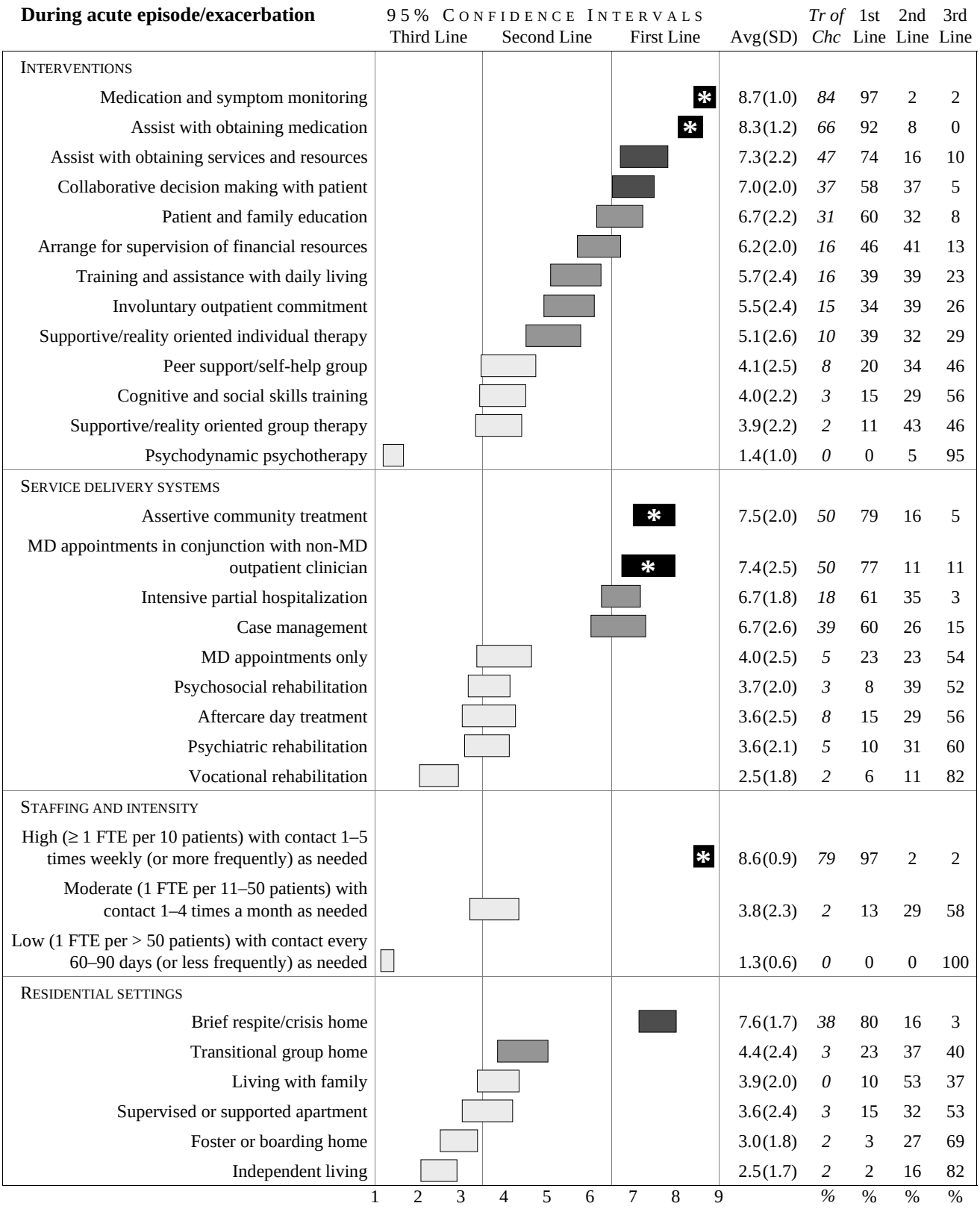
1 First episode patient, *continued*

During maintenance



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Collaborative decision making	8.5 (1.0)	*68*	97	2	2
Patient and family education	8.1 (1.2)	*55*	87	13	0
Medication and symptom monitoring	7.9 (1.5)	*53*	87	11	2
Assist with obtaining medication	7.3 (2.0)	*43*	74	20	7
Supportive/reality oriented individual therapy	7.1 (1.9)	*29*	71	24	5
Assist with obtaining services and resources	7.0 (1.9)	*31*	63	31	6
Cognitive and social skills training	6.6 (1.7)	*11*	65	31	5
Peer support/self-help group	6.6 (1.8)	*13*	60	35	5
Training and assistance with daily living	6.4 (1.9)	*15*	50	44	6
Supportive/reality oriented group therapy	6.0 (1.9)	*8*	51	39	10
Arrange for supervision of financial resources	5.0 (1.8)	*2*	18	63	19
Involuntary outpatient commitment	3.2 (1.8)	*2*	5	34	61
Psychodynamic psychotherapy	2.8 (1.8)	*2*	3	27	69
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	7.6 (1.4)	*34*	79	19	2
Case management	7.1 (1.9)	*31*	69	24	6
Psychiatric rehabilitation	6.6 (1.9)	*19*	55	40	5
Vocational rehabilitation	6.1 (1.8)	*8*	48	43	10
Psychosocial rehabilitation	6.1 (2.0)	*13*	44	43	13
Assertive community treatment	5.5 (2.0)	*10*	29	50	21
MD appointments only	4.8 (2.3)	*6*	19	53	27
Aftercare day treatment	4.8 (2.2)	*3*	27	40	33
Intensive partial hospitalization	3.5 (2.2)	*3*	13	20	67
STAFFING AND INTENSITY					
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	6.5 (1.8)	*15*	52	44	3
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	5.1 (1.9)	*8*	24	55	21
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	4.3 (2.1)	*3*	15	42	44
RESIDENTIAL SETTINGS					
Independent living	7.0 (1.5)	*21*	61	38	2
Living with family	6.9 (1.3)	*11*	64	34	2
Supervised or supported apartment	6.8 (1.7)	*17*	65	30	5
Foster or boarding home	5.1 (2.1)	*2*	23	52	25
Transitional group home	4.6 (2.4)	*7*	25	34	41
Brief respite/crisis home	3.0 (2.2)	*3*	10	17	73
		%	%	%	%

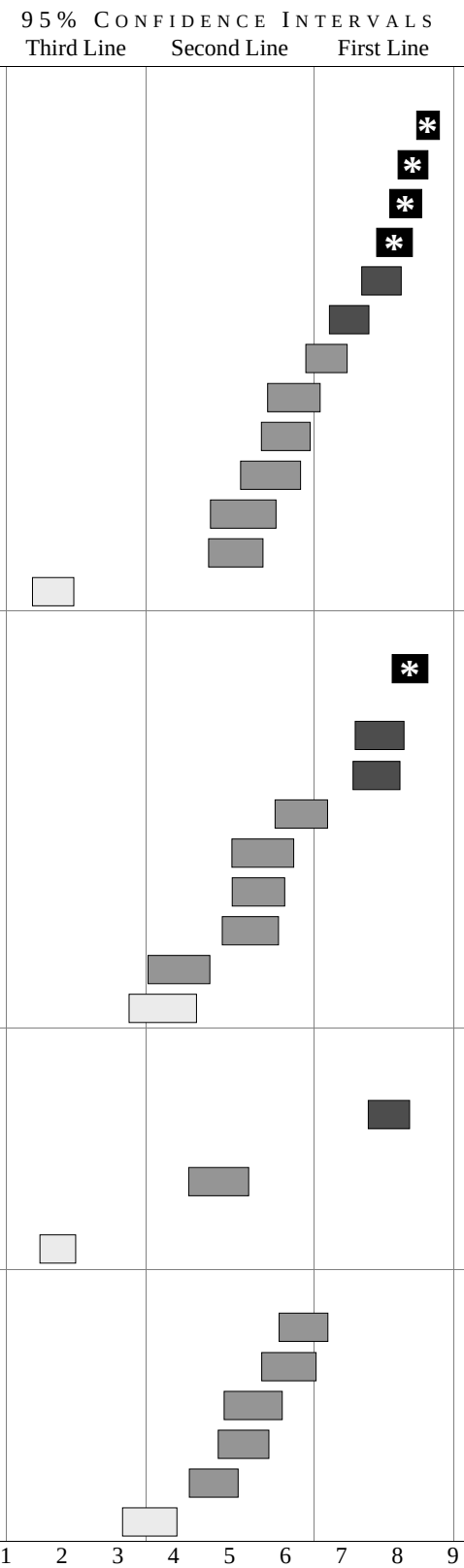
2 **Severely impaired and unstable patient**: Rate the importance of each of the following outpatient treatment components for a **severely impaired and unstable** patient with schizophrenia.



During acute episode/exacerbation	95% Confidence Intervals: Third Line / Second Line / First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS						
Medication and symptom monitoring	*	8.7(1.0)	*84*	97	2	2
Assist with obtaining medication	*	8.3(1.2)	*66*	92	8	0
Assist with obtaining services and resources		7.3(2.2)	*47*	74	16	10
Collaborative decision making with patient		7.0(2.0)	*37*	58	37	5
Patient and family education		6.7(2.2)	*31*	60	32	8
Arrange for supervision of financial resources		6.2(2.0)	*16*	46	41	13
Training and assistance with daily living		5.7(2.4)	*16*	39	39	23
Involuntary outpatient commitment		5.5(2.4)	*15*	34	39	26
Supportive/reality oriented individual therapy		5.1(2.6)	*10*	39	32	29
Peer support/self-help group		4.1(2.5)	*8*	20	34	46
Cognitive and social skills training		4.0(2.2)	*3*	15	29	56
Supportive/reality oriented group therapy		3.9(2.2)	*2*	11	43	46
Psychodynamic psychotherapy		1.4(1.0)	*0*	0	5	95
SERVICE DELIVERY SYSTEMS						
Assertive community treatment	*	7.5(2.0)	*50*	79	16	5
MD appointments in conjunction with non-MD outpatient clinician	*	7.4(2.5)	*50*	77	11	11
Intensive partial hospitalization		6.7(1.8)	*18*	61	35	3
Case management		6.7(2.6)	*39*	60	26	15
MD appointments only		4.0(2.5)	*5*	23	23	54
Psychosocial rehabilitation		3.7(2.0)	*3*	8	39	52
Aftercare day treatment		3.6(2.5)	*8*	15	29	56
Psychiatric rehabilitation		3.6(2.1)	*5*	10	31	60
Vocational rehabilitation		2.5(1.8)	*2*	6	11	82
STAFFING AND INTENSITY						
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	*	8.6(0.9)	*79*	97	2	2
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed		3.8(2.3)	*2*	13	29	58
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed		1.3(0.6)	*0*	0	0	100
RESIDENTIAL SETTINGS						
Brief respite/crisis home		7.6(1.7)	*38*	80	16	3
Transitional group home		4.4(2.4)	*3*	23	37	40
Living with family		3.9(2.0)	*0*	10	53	37
Supervised or supported apartment		3.6(2.4)	*3*	15	32	53
Foster or boarding home		3.0(1.8)	*2*	3	27	69
Independent living		2.5(1.7)	*2*	2	16	82
	1 2 3 4 5 6 7 8 9		*%*	%	%	%

2 Severely impaired and unstable patient, *continued*

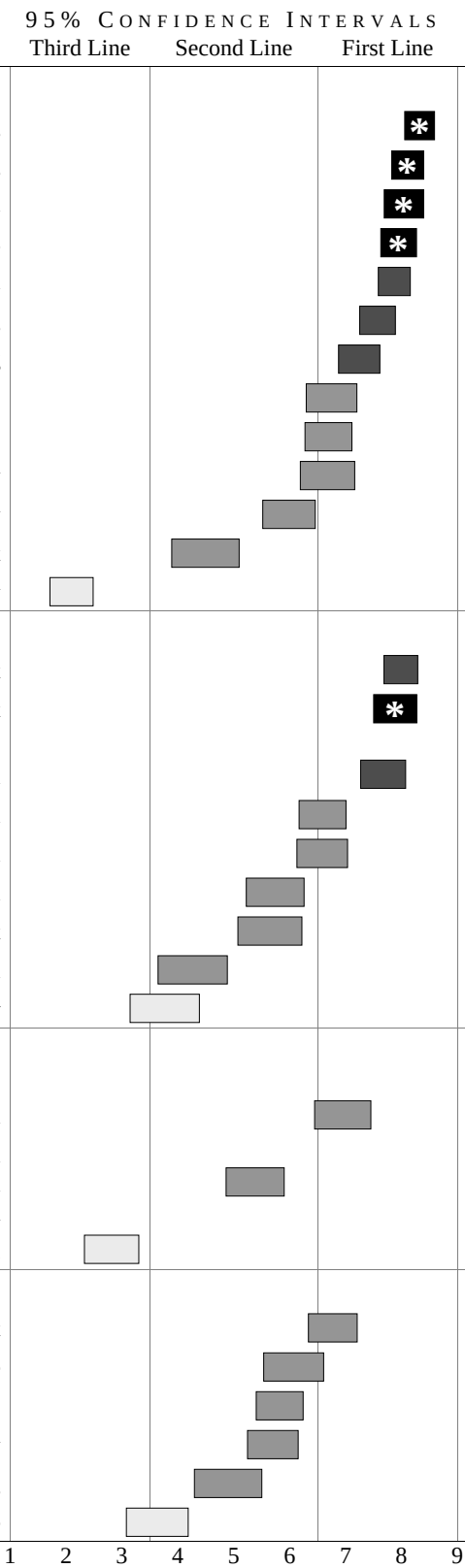
During early post-episode resolution



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Medication and symptom monitoring	8.5 (0.8)	*71*	98	2	0
Assist with obtaining medication	8.3 (1.1)	*63*	92	8	0
Assist with obtaining services and resources	8.1 (1.1)	*53*	95	3	2
Collaborative decision making with patient	8.0 (1.3)	*50*	84	16	0
Patient and family education	7.7 (1.5)	*40*	82	18	0
Training and assistance with daily living	7.1 (1.5)	*21*	68	32	0
Arrange for supervision of financial resources	6.7 (1.5)	*15*	56	43	2
Supportive/reality oriented individual therapy	6.2 (1.9)	*11*	47	47	6
Cognitive and social skills training	6.0 (1.8)	*6*	44	47	10
Peer support/self-help group	5.7 (2.1)	*13*	39	50	11
Involuntary outpatient commitment	5.2 (2.3)	*8*	31	43	26
Supportive/reality oriented group therapy	5.1 (2.0)	*3*	31	49	20
Psychodynamic psychotherapy	1.8 (1.5)	*0*	2	8	90
SERVICE DELIVERY SYSTEMS					
Assertive community treatment	8.2 (1.3)	*56*	92	6	2
MD appointments in conjunction with non-MD outpatient clinician	7.7 (1.7)	*40*	84	11	5
Case management	7.6 (1.7)	*44*	76	23	2
Intensive partial hospitalization	6.3 (1.9)	*13*	50	42	8
Aftercare day treatment	5.6 (2.3)	*11*	40	40	19
Psychosocial rehabilitation	5.5 (1.9)	*7*	30	51	20
Psychiatric rehabilitation	5.4 (2.0)	*5*	31	48	21
Vocational rehabilitation	4.1 (2.2)	*3*	15	39	46
MD appointments only	3.8 (2.4)	*5*	16	32	52
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	7.9 (1.5)	*44*	89	8	3
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	4.9 (2.2)	*8*	23	44	34
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	1.9 (1.3)	*0*	0	13	87
RESIDENTIAL SETTINGS					
Transitional group home	6.3 (1.8)	*13*	43	52	5
Brief respite/crisis home	6.1 (1.9)	*13*	38	52	10
Supervised or supported apartment	5.4 (2.1)	*8*	37	39	24
Living with family	5.3 (1.9)	*0*	29	53	18
Foster or boarding home	4.7 (1.8)	*2*	18	56	26
Independent living	3.6 (2.0)	*2*	5	43	52
		%	%	%	%

2 Severely impaired and unstable patient, *continued*

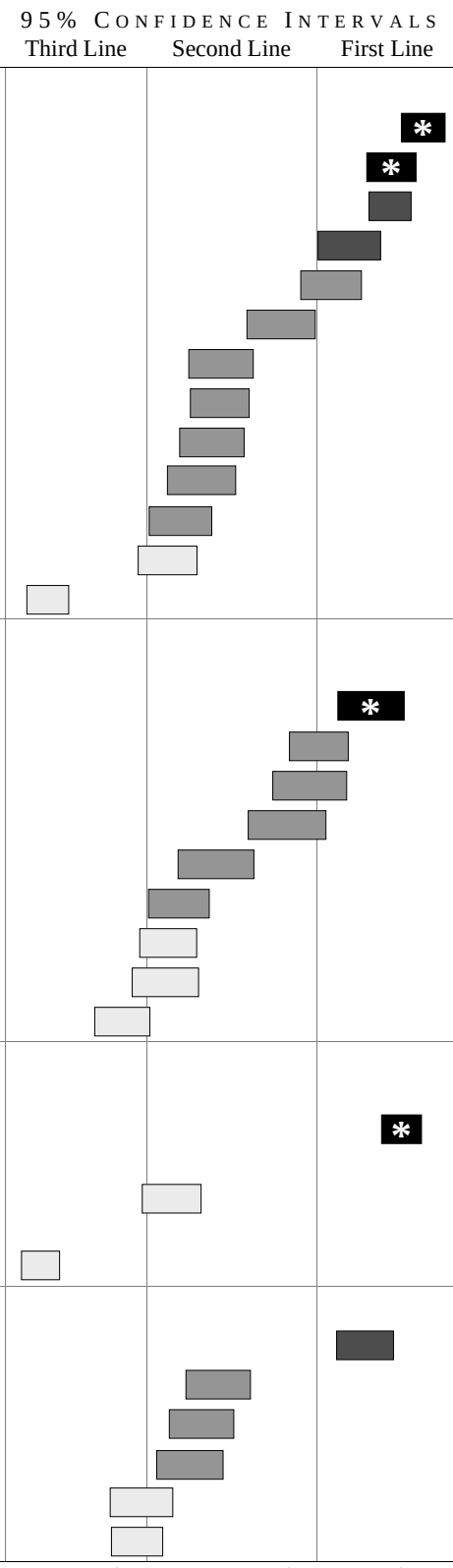
Between acute episodes



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Medication and symptom monitoring	8.3(1.1)	*65*	92	8	0
Collaborative decision making	8.1(1.2)	*52*	89	11	0
Assist with obtaining medication	8.0(1.4)	*63*	84	16	0
Assist with obtaining services and resources	8.0(1.3)	*50*	85	13	2
Patient and family education	7.9(1.2)	*39*	90	10	0
Training and assistance with daily living	7.6(1.3)	*34*	77	23	0
Cognitive and social skills training	7.2(1.5)	*24*	74	24	2
Peer support/self-help group	6.8(1.9)	*23*	58	39	3
Arrange for supervision of financial resources	6.7(1.7)	*16*	52	48	0
Supportive/reality oriented individual therapy	6.7(2.0)	*21*	61	32	6
Supportive/reality oriented group therapy	6.0(1.9)	*8*	41	49	10
Involuntary outpatient commitment	4.5(2.4)	*5*	23	39	38
Psychodynamic psychotherapy	2.1(1.5)	*0*	3	5	92
SERVICE DELIVERY SYSTEMS					
Assertive community treatment	8.0(1.2)	*48*	87	13	0
Case management	7.9(1.6)	*52*	81	18	2
MD appointments in conjunction with non-MD outpatient clinician	7.7(1.6)	*45*	81	16	3
Psychosocial rehabilitation	6.6(1.7)	*17*	53	42	5
Psychiatric rehabilitation	6.6(1.8)	*13*	61	33	7
Vocational rehabilitation	5.7(2.1)	*8*	39	42	19
Aftercare day treatment	5.7(2.3)	*8*	40	40	20
Intensive partial hospitalization	4.3(2.4)	*8*	20	33	47
MD appointments only	3.8(2.5)	*7*	15	34	51
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	7.0(2.0)	*29*	68	26	6
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	5.4(2.1)	*11*	31	53	16
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	2.8(2.0)	*2*	6	21	73
RESIDENTIAL SETTINGS					
Supervised or supported apartment	6.8(1.7)	*15*	67	26	7
Transitional group home	6.1(2.2)	*15*	51	36	13
Foster or boarding home	5.8(1.7)	*5*	41	54	5
Living with family	5.7(1.8)	*0*	39	44	16
Independent living	4.9(2.4)	*3*	34	31	34
Brief respite/crisis home	3.6(2.2)	*5*	10	28	62
		%	%	%	%

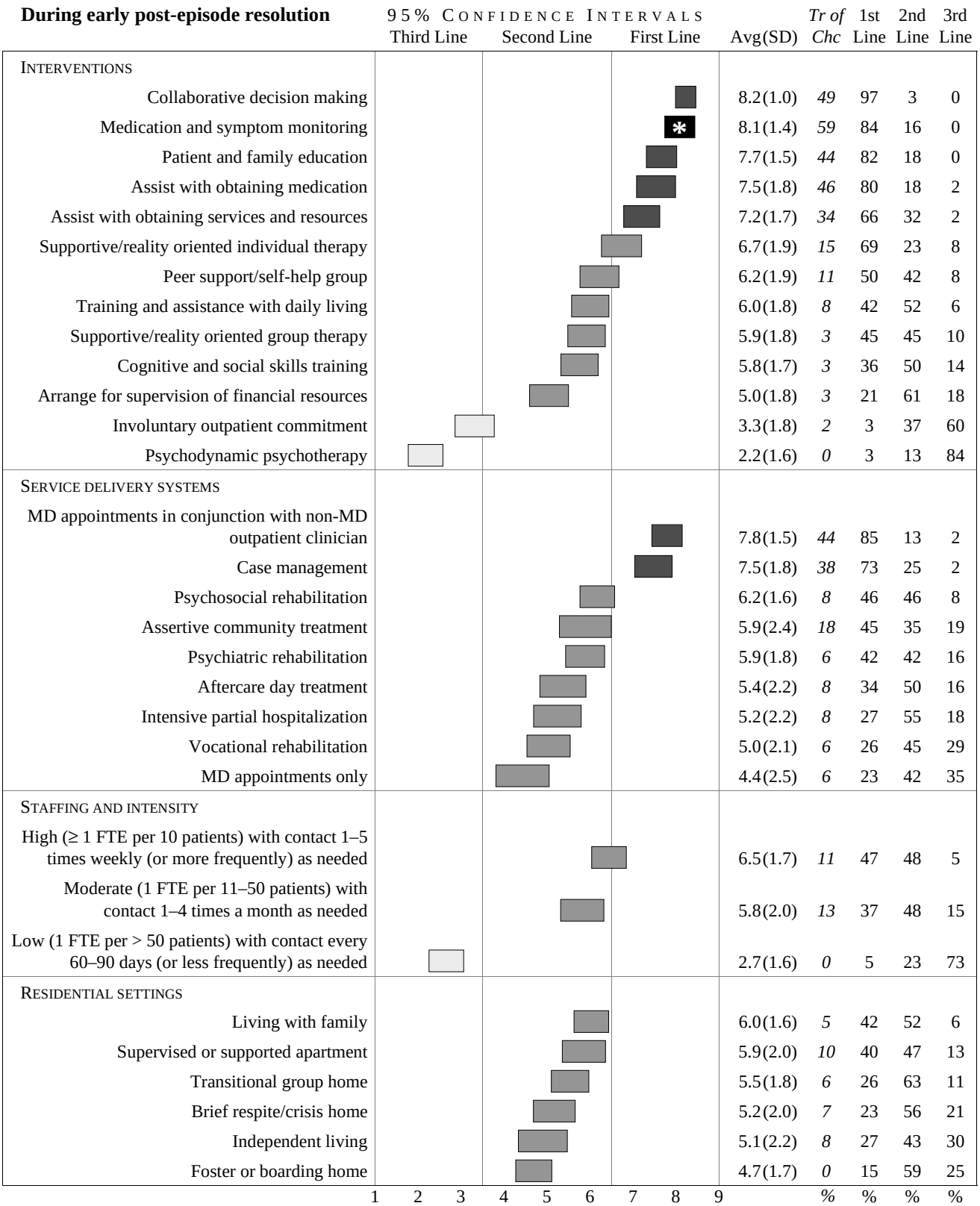
3 **Moderately impaired and intermittently stable patient:** Rate the importance of the following outpatient treatment components for a **moderately impaired and intermittently stable** patient with schizophrenia.

During acute episode/exacerbation



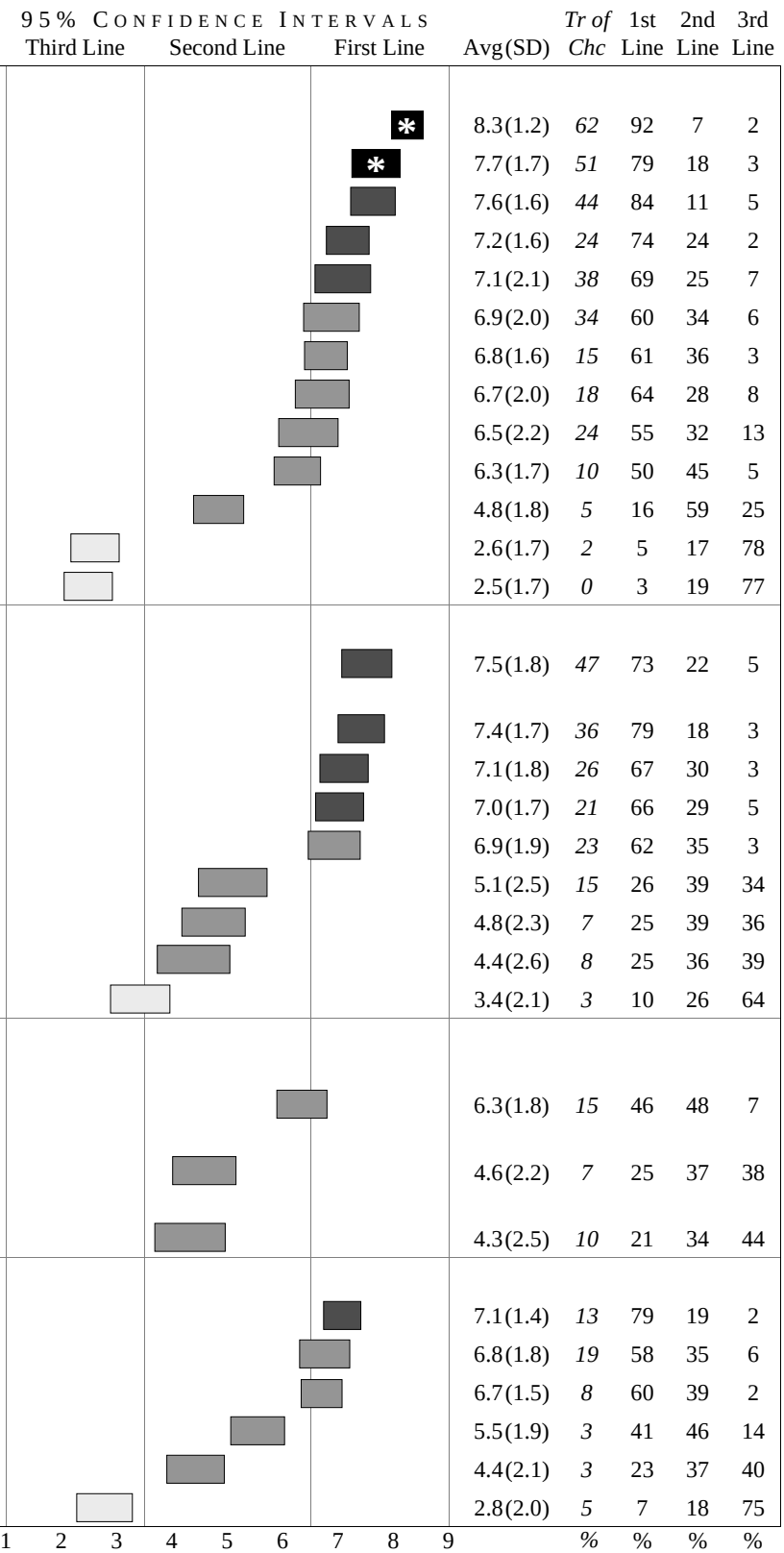
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Medication and symptom monitoring	8.4(1.6)	*77*	94	3	3
Assist with obtaining medication	7.8(1.8)	*52*	85	11	3
Collaborative decision making	7.8(1.5)	*48*	84	15	2
Patient and family education	7.1(2.2)	*41*	72	20	8
Assist with obtaining services and resources	6.8(2.2)	*34*	55	37	8
Supportive/reality oriented individual therapy	5.9(2.4)	*16*	47	32	21
Supportive/reality oriented group therapy	4.8(2.3)	*2*	28	42	30
Arrange for supervision of financial resources	4.8(2.1)	*6*	19	53	27
Training and assistance with daily living	4.7(2.3)	*6*	26	39	35
Peer support/self-help group	4.5(2.4)	*10*	21	42	37
Involuntary outpatient commitment	4.1(2.2)	*5*	13	42	45
Cognitive and social skills training	3.9(2.0)	*2*	8	45	47
Psychodynamic psychotherapy	1.8(1.5)	*2*	2	6	92
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	7.5(2.4)	*56*	77	10	13
Intensive partial hospitalization	6.5(2.1)	*15*	63	27	10
Case management	6.4(2.6)	*33*	50	35	15
Assertive community treatment	6.0(2.8)	*29*	50	31	19
MD appointments only	4.7(2.7)	*8*	31	34	35
Psychosocial rehabilitation	4.1(2.1)	*5*	12	45	43
Psychiatric rehabilitation	3.9(2.0)	*3*	8	42	50
Aftercare day treatment	3.8(2.4)	*5*	15	37	48
Vocational rehabilitation	3.1(2.0)	*3*	5	24	71
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	8.0(1.5)	*52*	89	10	2
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	4.0(2.1)	*2*	10	48	42
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	1.6(1.4)	*2*	3	2	95
RESIDENTIAL SETTINGS					
Brief respite/crisis home	7.4(2.0)	*39*	77	16	7
Transitional group home	4.8(2.3)	*6*	27	39	34
Living with family	4.5(2.3)	*3*	18	47	35
Supervised or supported apartment	4.3(2.4)	*3*	21	37	42
Independent living	3.4(2.2)	*3*	7	33	61
Foster or boarding home	3.3(1.8)	*0*	5	41	54
		%	%	%	%

3 Moderately impaired and intermittently stable patient, *continued*



3 Moderately impaired and intermittently stable patient, *continued*

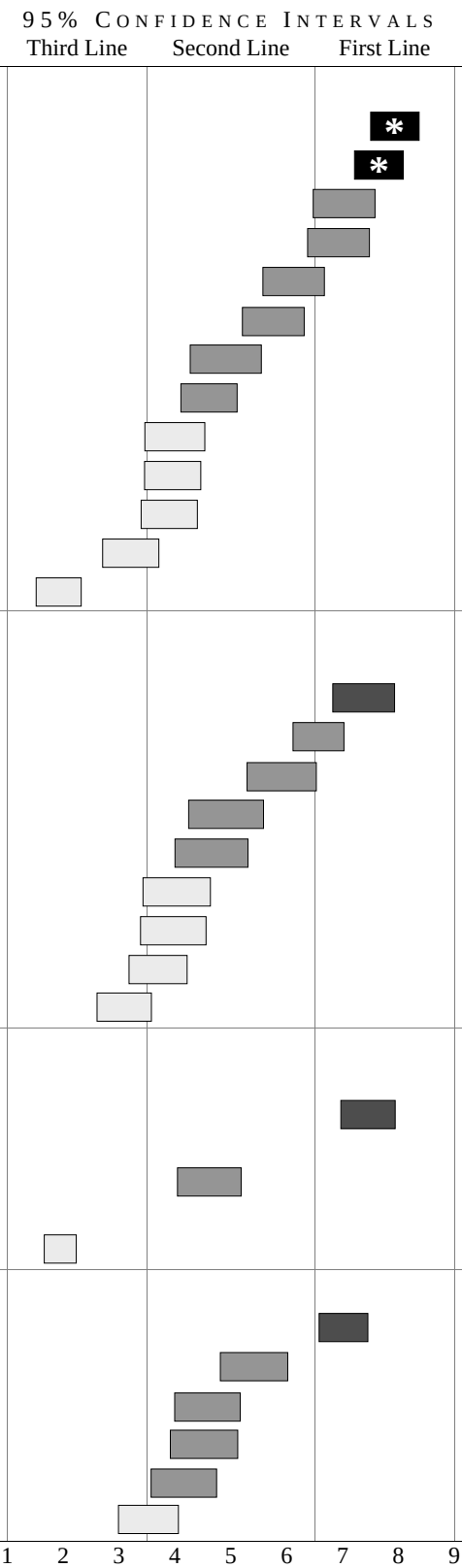
During maintenance



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Collaborative decision making	8.3 (1.2)	*62*	92	7	2
Medication and symptom monitoring	7.7 (1.7)	*51*	79	18	3
Patient and family education	7.6 (1.6)	*44*	84	11	5
Peer support/self-help group	7.2 (1.6)	*24*	74	24	2
Assist with obtaining medication	7.1 (2.1)	*38*	69	25	7
Assist with obtaining services and resources	6.9 (2.0)	*34*	60	34	6
Cognitive and social skills training	6.8 (1.6)	*15*	61	36	3
Supportive/reality oriented individual therapy	6.7 (2.0)	*18*	64	28	8
Training and assistance with daily living	6.5 (2.2)	*24*	55	32	13
Supportive/reality oriented group therapy	6.3 (1.7)	*10*	50	45	5
Arrange for supervision of financial resources	4.8 (1.8)	*5*	16	59	25
Involuntary outpatient commitment	2.6 (1.7)	*2*	5	17	78
Psychodynamic psychotherapy	2.5 (1.7)	*0*	3	19	77
SERVICE DELIVERY SYSTEMS					
Case management	7.5 (1.8)	*47*	73	22	5
MD appointments in conjunction with non-MD outpatient clinician	7.4 (1.7)	*36*	79	18	3
Psychiatric rehabilitation	7.1 (1.8)	*26*	67	30	3
Psychosocial rehabilitation	7.0 (1.7)	*21*	66	29	5
Vocational rehabilitation	6.9 (1.9)	*23*	62	35	3
Assertive community treatment	5.1 (2.5)	*15*	26	39	34
Aftercare day treatment	4.8 (2.3)	*7*	25	39	36
MD appointments only	4.4 (2.6)	*8*	25	36	39
Intensive partial hospitalization	3.4 (2.1)	*3*	10	26	64
STAFFING AND INTENSITY					
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	6.3 (1.8)	*15*	46	48	7
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	4.6 (2.2)	*7*	25	37	38
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	4.3 (2.5)	*10*	21	34	44
RESIDENTIAL SETTINGS					
Supervised or supported apartment	7.1 (1.4)	*13*	79	19	2
Independent living	6.8 (1.8)	*19*	58	35	6
Living with family	6.7 (1.5)	*8*	60	39	2
Foster or boarding home	5.5 (1.9)	*3*	41	46	14
Transitional group home	4.4 (2.1)	*3*	23	37	40
Brief respite/crisis home	2.8 (2.0)	*5*	7	18	75
		%	%	%	%

4 **Mildly impaired and often stable patient**: Rate the importance of each of the following outpatient treatment components for a **mildly impaired and often stable** patient with schizophrenia.

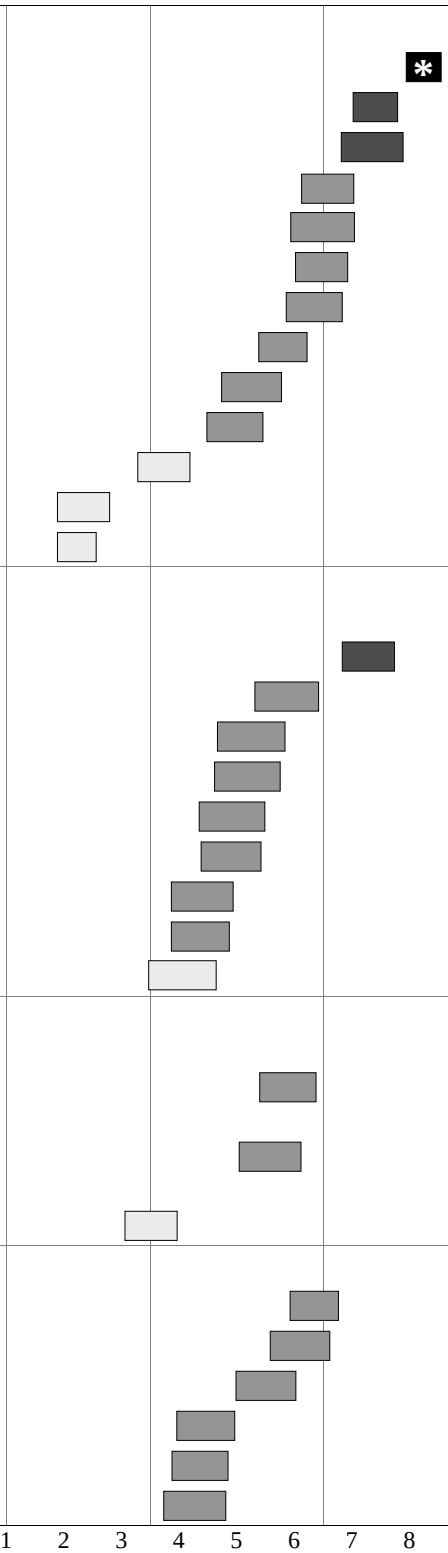
During acute episode/exacerbation



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Medication and symptom monitoring	7.9(1.7)	*57*	84	15	2
Collaborative decision making	7.6(1.7)	*50*	82	15	3
Assist with obtaining medication	7.0(2.2)	*37*	69	23	8
Patient and family education	6.9(2.3)	*35*	68	21	11
Assist with obtaining services and resources	6.1(2.3)	*23*	45	37	18
Supportive/reality oriented individual therapy	5.8(2.2)	*11*	42	42	16
Peer support/self-help group	4.9(2.6)	*8*	34	32	34
Supportive/reality oriented group therapy	4.6(2.1)	*0*	21	50	29
Training and assistance with daily living	4.0(2.2)	*3*	13	39	48
Arrange for supervision of financial resources	4.0(2.0)	*2*	10	48	42
Cognitive and social skills training	3.9(2.0)	*3*	5	50	45
Involuntary outpatient commitment	3.2(2.0)	*2*	8	31	61
Psychodynamic psychotherapy	1.9(1.6)	*0*	3	11	85
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	7.4(2.2)	*44*	75	15	10
Intensive partial hospitalization	6.6(1.8)	*18*	53	40	6
Case management	5.9(2.5)	*21*	42	42	16
MD appointments only	4.9(2.7)	*8*	31	36	33
Assertive community treatment	4.7(2.7)	*11*	29	31	40
Psychiatric rehabilitation	4.0(2.4)	*6*	16	37	47
Aftercare day treatment	4.0(2.3)	*2*	19	31	50
Psychosocial rehabilitation	3.7(2.1)	*3*	10	41	49
Vocational rehabilitation	3.1(2.0)	*3*	8	23	69
STAFFING AND INTENSITY					
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	7.5(1.9)	*37*	79	15	6
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	4.6(2.3)	*2*	23	42	35
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	2.0(1.2)	*0*	0	6	94
RESIDENTIAL SETTINGS					
Brief respite/crisis home	7.0(1.8)	*26*	66	33	2
Living with family	5.4(2.5)	*10*	35	40	24
Independent living	4.6(2.4)	*6*	24	37	39
Supervised or supported apartment	4.5(2.4)	*5*	23	40	37
Transitional group home	4.2(2.4)	*5*	16	39	45
Foster or boarding home	3.5(2.1)	*3*	10	30	61
		%	%	%	%

4 Mildly impaired and often stable patient, *continued*

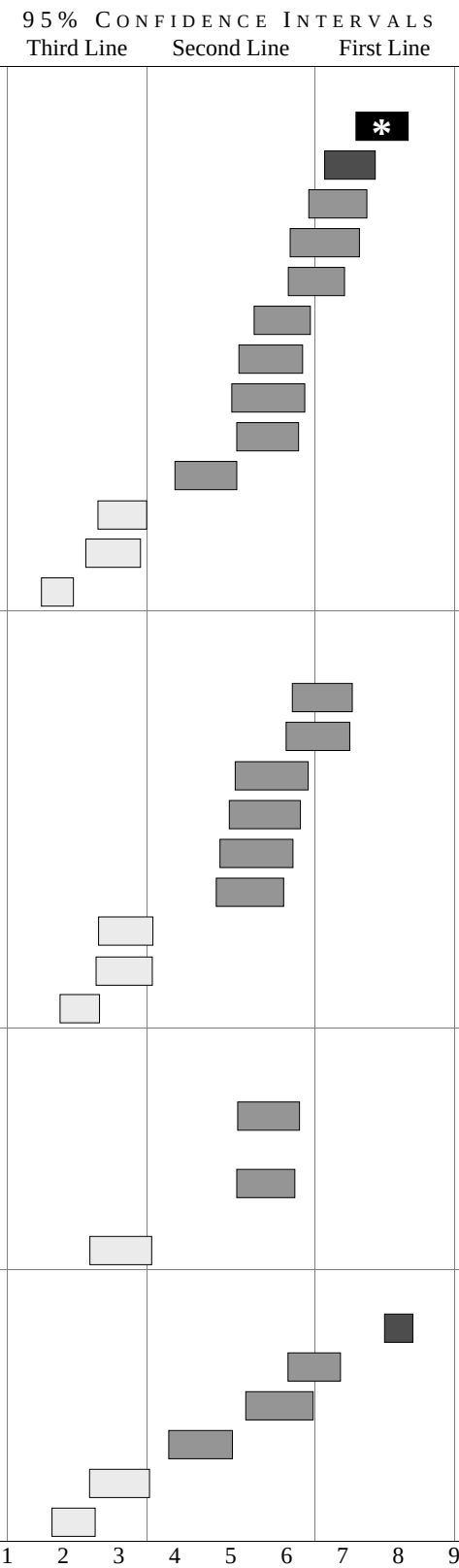
During early post-episode resolution



	Avg (SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Collaborative decision making	8.2 (1.2)	64	89	11	2
Patient and family education	7.4 (1.6)	35	76	24	7
Medication and symptom monitoring	7.4 (2.2)	48	71	21	0
Supportive/reality oriented individual therapy	6.6 (1.8)	16	58	37	5
Assist with obtaining medication	6.5 (2.3)	29	58	34	19
Peer support/self-help group	6.5 (1.9)	15	53	40	16
Assist with obtaining services and resources	6.4 (2.0)	18	53	39	36
Supportive/reality oriented group therapy	5.8 (1.7)	3	32	56	36
Cognitive and social skills training	5.3 (2.1)	8	28	52	38
Training and assistance with daily living	5.0 (1.9)	5	21	58	47
Arrange for supervision of financial resources	3.7 (1.8)	0	6	48	55
Psychodynamic psychotherapy	2.3 (1.8)	2	3	18	61
Involuntary outpatient commitment	2.2 (1.4)	0	0	18	94
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	7.3 (1.8)	35	72	23	3
Case management	5.9 (2.2)	15	40	42	8
Psychiatric rehabilitation	5.3 (2.4)	10	32	45	27
MD appointments only	5.2 (2.3)	5	31	43	39
Psychosocial rehabilitation	4.9 (2.3)	8	23	52	39
Vocational rehabilitation	4.9 (2.1)	5	24	50	64
Intensive partial hospitalization	4.4 (2.2)	5	24	35	70
Aftercare day treatment	4.4 (2.0)	2	16	49	66
Assertive community treatment	4.1 (2.4)	5	19	34	80
STAFFING AND INTENSITY					
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	5.9 (1.9)	13	36	51	3
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	5.6 (2.2)	8	35	47	48
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	3.5 (1.8)	0	7	36	98
RESIDENTIAL SETTINGS					
Living with family	6.3 (1.7)	10	44	49	8
Independent living	6.1 (2.1)	11	51	38	32
Supervised or supported apartment	5.5 (2.1)	13	26	57	61
Brief respite/crisis home	4.5 (2.0)	2	13	53	61
Foster or boarding home	4.4 (1.9)	2	10	52	62
Transitional group home	4.3 (2.2)	5	13	48	79
		%	%	%	%

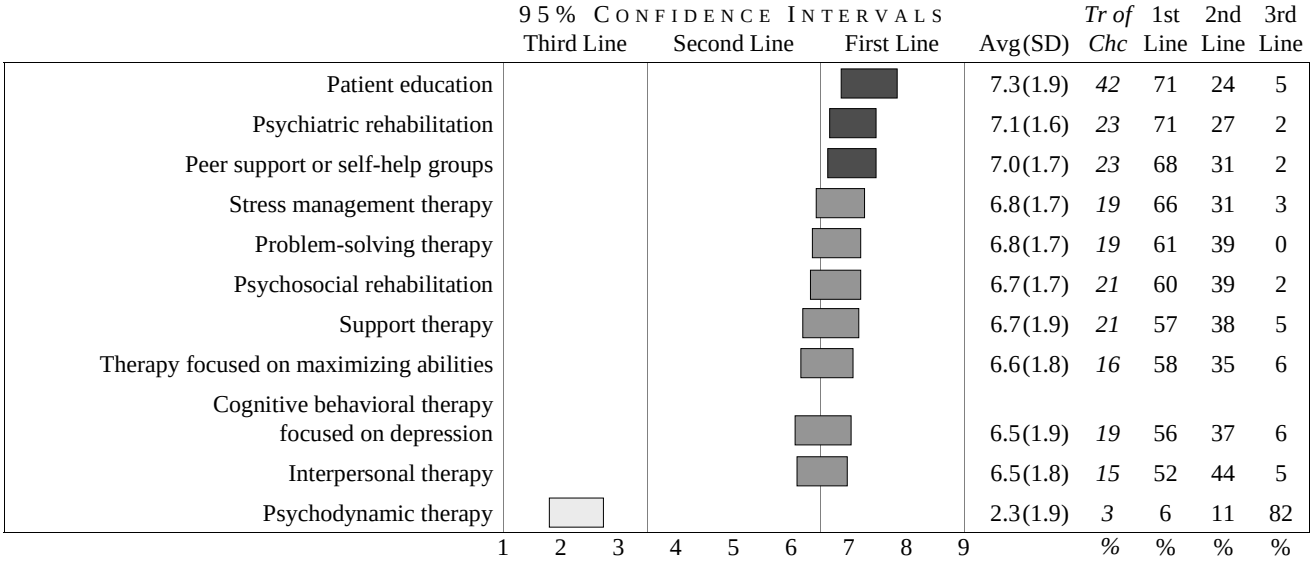
4 Mildly impaired and often stable patient, *continued*

During maintenance



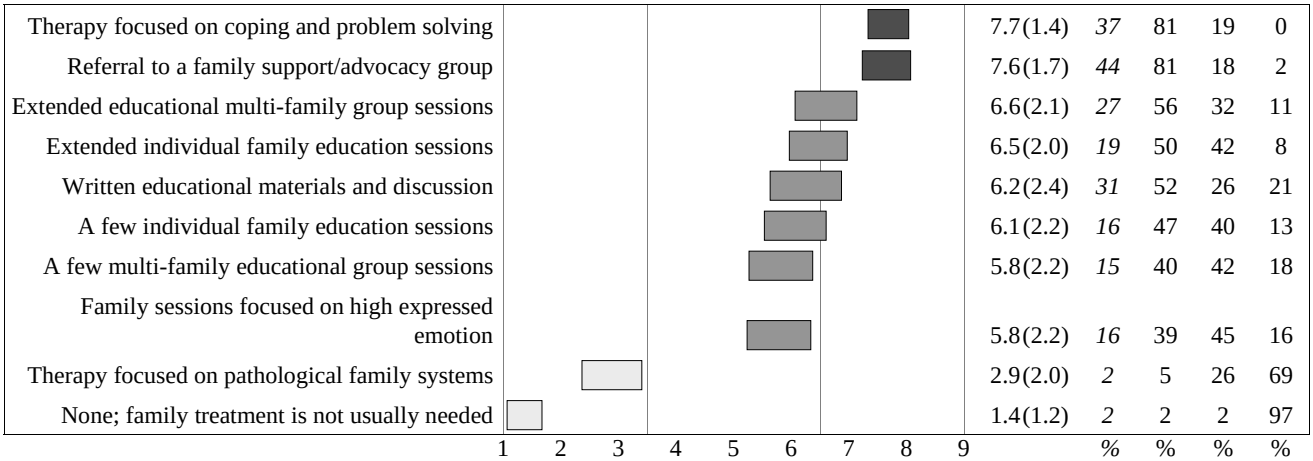
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
INTERVENTIONS					
Collaborative decision making	7.7(1.9)	*60*	73	21	6
Peer support/self-help group	7.1(1.8)	*31*	75	20	5
Patient and family education	6.9(2.1)	*34*	65	26	10
Medication and symptom monitoring	6.7(2.5)	*41*	61	26	13
Supportive/reality oriented individual therapy	6.5(2.0)	*20*	57	33	10
Supportive/reality oriented group therapy	5.9(2.0)	*10*	44	43	13
Assist with obtaining services and resources	5.7(2.3)	*21*	39	40	21
Assist with obtaining medication	5.7(2.6)	*23*	42	35	23
Cognitive and social skills training	5.7(2.2)	*8*	38	42	20
Training and assistance with daily living	4.6(2.3)	*3*	23	42	35
Arrange for supervision of financial resources	3.1(1.8)	*0*	6	27	66
Psychodynamic psychotherapy	2.9(1.9)	*2*	5	25	70
Involuntary outpatient commitment	1.9(1.2)	*0*	0	10	90
SERVICE DELIVERY SYSTEMS					
MD appointments in conjunction with non-MD outpatient clinician	6.6(2.1)	*26*	58	31	11
Vocational rehabilitation	6.6(2.3)	*18*	66	21	13
Psychiatric rehabilitation	5.7(2.7)	*19*	52	23	26
MD appointments only	5.6(2.6)	*15*	40	34	26
Psychosocial rehabilitation	5.5(2.6)	*15*	44	28	28
Case management	5.4(2.5)	*18*	35	39	26
Aftercare day treatment	3.1(2.0)	*0*	10	23	67
Assertive community treatment	3.1(2.0)	*2*	10	21	69
Intensive partial hospitalization	2.3(1.5)	*0*	2	15	84
STAFFING AND INTENSITY					
Low (1 FTE per > 50 patients) with contact every 60–90 days (or less frequently) as needed	5.7(2.2)	*11*	44	39	18
Moderate (1 FTE per 11–50 patients) with contact 1–4 times a month as needed	5.6(2.1)	*7*	38	46	16
High (≥ 1 FTE per 10 patients) with contact 1–5 times weekly (or more frequently) as needed	3.3(2.2)	*3*	10	30	61
RESIDENTIAL SETTINGS					
Independent living	8.0(1.0)	*44*	92	8	0
Living with family	6.5(1.9)	*16*	53	39	8
Supervised or supported apartment	5.9(2.4)	*18*	47	32	21
Foster or boarding home	4.5(2.3)	*3*	26	39	34
Transitional group home	3.0(2.2)	*3*	11	11	77
Brief respite/crisis home	2.2(1.5)	*2*	2	8	90
		%	%	%	%

5 A patient with chronic schizophrenia is experiencing **postpsychotic depression** and sees little hope for the future. The patient ruminates about unachieved goals, years lost to the illness, impaired role performance, and lack of meaningful relationships. Rate the relative importance of the following psychosocial interventions (either in addition to, or in lieu of, a psychopharmacological strategy).



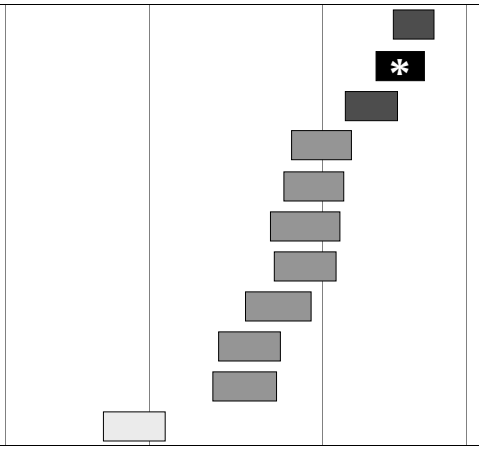
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Patient education	7.3(1.9)	*42*	71	24	5
Psychiatric rehabilitation	7.1(1.6)	*23*	71	27	2
Peer support or self-help groups	7.0(1.7)	*23*	68	31	2
Stress management therapy	6.8(1.7)	*19*	66	31	3
Problem-solving therapy	6.8(1.7)	*19*	61	39	0
Psychosocial rehabilitation	6.7(1.7)	*21*	60	39	2
Support therapy	6.7(1.9)	*21*	57	38	5
Therapy focused on maximizing abilities	6.6(1.8)	*16*	58	35	6
Cognitive behavioral therapy focused on depression	6.5(1.9)	*19*	56	37	6
Interpersonal therapy	6.5(1.8)	*15*	52	44	5
Psychodynamic therapy	2.3(1.9)	*3*	6	11	82
		%	%	%	%

6 Please rate the relative importance of the following approaches to outpatient family treatment for a patient with schizophrenia who has active contact and involvement with family members.



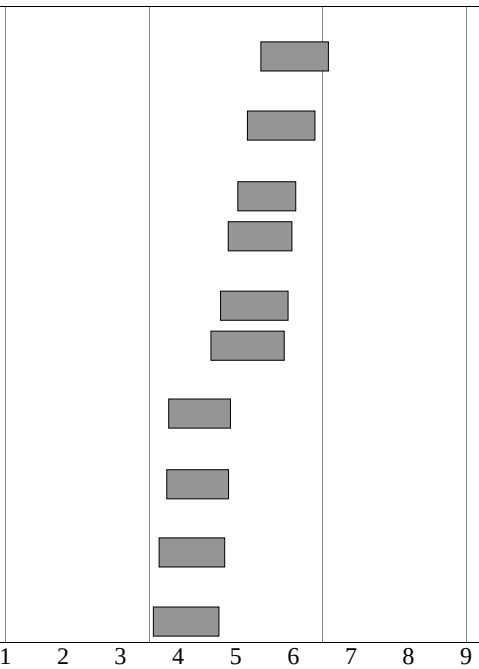
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Therapy focused on coping and problem solving	7.7(1.4)	*37*	81	19	0
Referral to a family support/advocacy group	7.6(1.7)	*44*	81	18	2
Extended educational multi-family group sessions	6.6(2.1)	*27*	56	32	11
Extended individual family education sessions	6.5(2.0)	*19*	50	42	8
Written educational materials and discussion	6.2(2.4)	*31*	52	26	21
A few individual family education sessions	6.1(2.2)	*16*	47	40	13
A few multi-family educational group sessions	5.8(2.2)	*15*	40	42	18
Family sessions focused on high expressed emotion	5.8(2.2)	*16*	39	45	16
Therapy focused on pathological family systems	2.9(2.0)	*2*	5	26	69
None; family treatment is not usually needed	1.4(1.2)	*2*	2	2	97
		%	%	%	%

7 Rate the appropriateness of the following indications for offering rehabilitation services to a patient with schizophrenia.



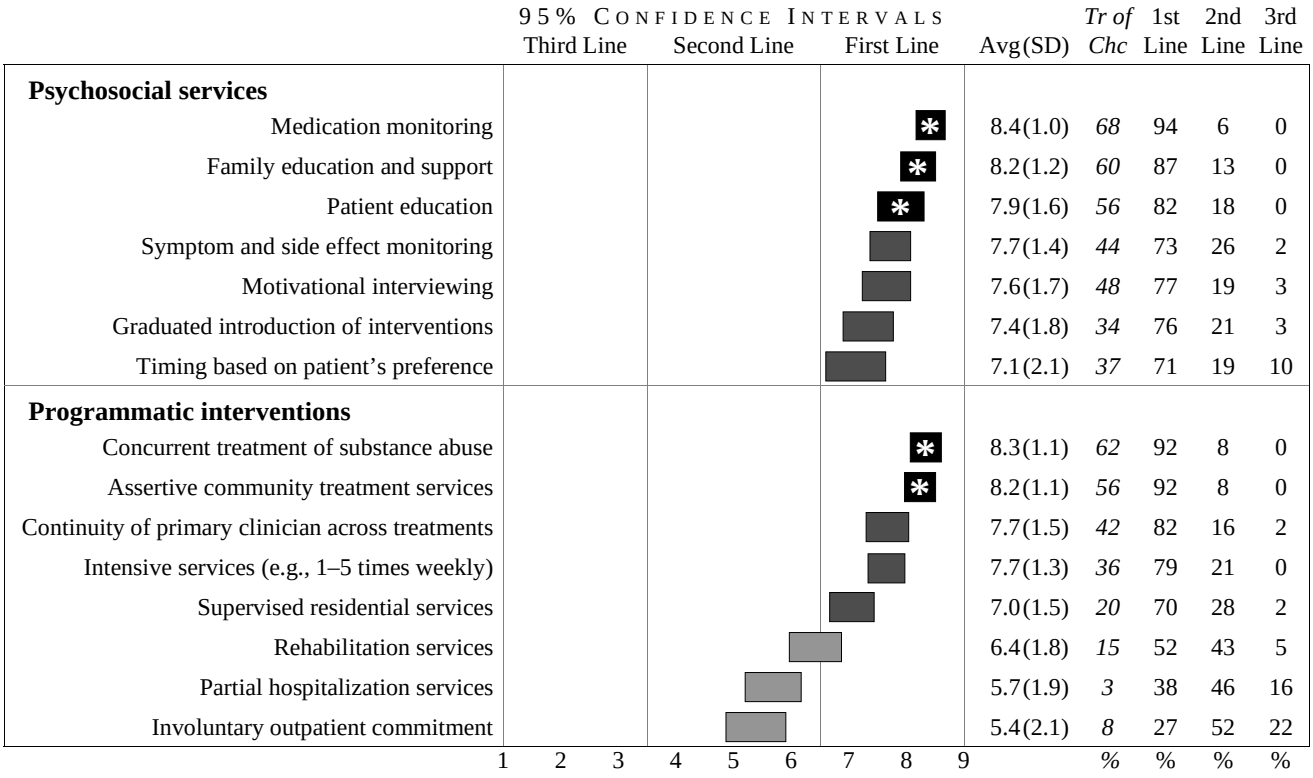
The patient:	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Is in the long-term recovery & maintenance phase	8.1(1.4)	*48*	90	8	2
Identifies competitive employment as a goal	7.8(1.7)	*50*	87	8	5
Has a history of competitive employment	7.3(1.8)	*32*	77	16	6
Has few persistent cognitive symptoms	6.5(2.1)	*19*	60	27	13
Has few persistent negative symptoms	6.3(2.1)	*18*	55	34	11
Has few or no persistent psychotic symptoms	6.2(2.4)	*24*	55	31	15
Assessment reveals poor work skills	6.2(2.2)	*19*	48	42	10
Has minimal history of psychiatric hospitalizations	5.7(2.3)	*15*	42	39	19
Is in the early post-episode resolution phase	5.2(2.1)	*6*	31	47	23
Has not responded to previous rehabilitation	5.1(2.2)	*13*	29	45	26
Is in the acute episode/exacerbation phase	3.2(2.2)	*3*	8	26	66
		%	%	%	%

8 There is some controversy about encouraging a healing or "sealing over" period to consolidate gains at certain points in the recovery process. Such a phase may include a period of supportive/maintenance services and is typically followed by psychosocial interventions designed to help the patient achieve more challenging levels of social, vocational, or educational functioning. Please rate the appropriateness of providing a "sealing over" period during each of the following phases of recovery.



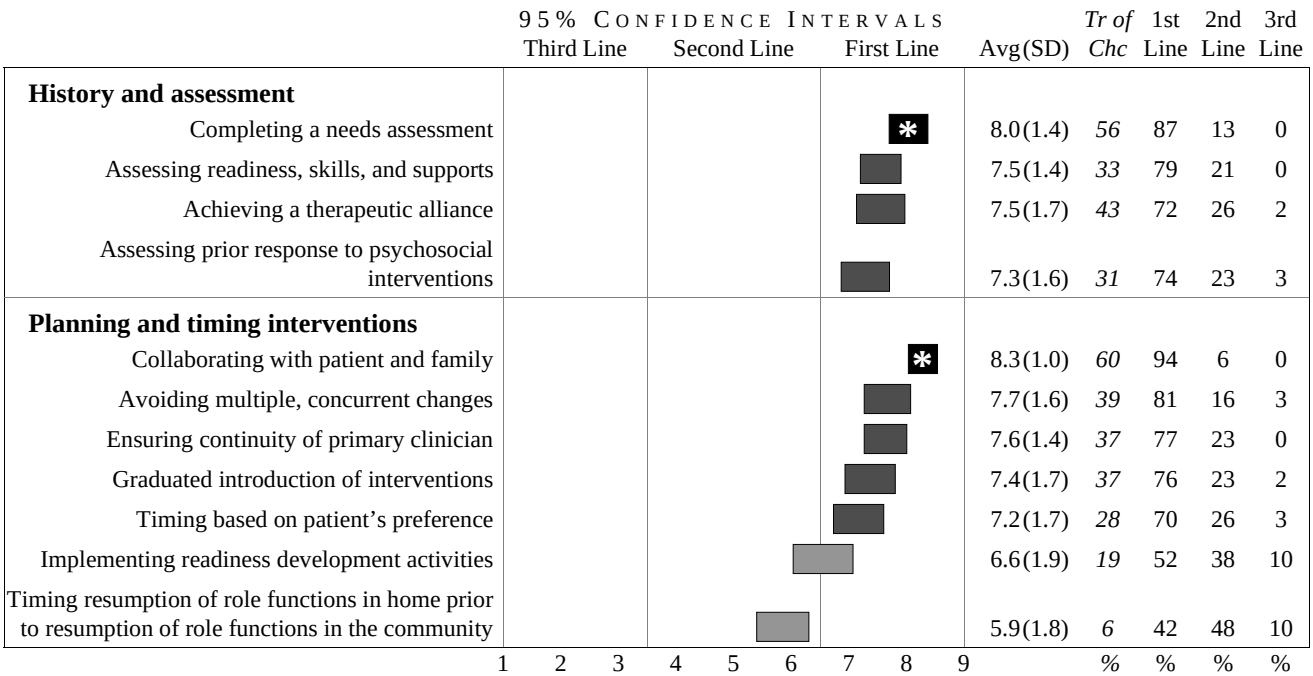
	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
After resolution of the acute phase in a first episode patient	6.0(2.1)	*6*	51	37	12
Between acute episodes of a severely impaired and unstable patient	5.8(2.1)	*4*	51	31	18
Between acute episodes of a moderately impaired and intermittently stable patient	5.5(1.8)	*2*	37	47	16
Immediately following brief inpatient treatment	5.4(2.0)	*0*	43	41	16
After achieving significant remission of persistent positive symptoms	5.3(2.1)	*4*	39	41	20
After prolonged inpatient treatment	5.2(2.2)	*6*	29	45	27
Between intensive partial hospitalization and rehabilitation	4.4(1.9)	*0*	20	41	39
Following restabilization of a minor symptom exacerbation	4.3(1.9)	*0*	18	41	41
During the maintenance phase of a mildly impaired and often stable patient	4.2(2.0)	*6*	12	47	41
Between inpatient treatment and intensive partial hospitalization	4.1(2.0)	*0*	19	36	45
		%	%	%	%

9 Rate the importance of the following when designing and implementing psychosocial services for a patient who has ***a long history of noncompliance with treatment***.



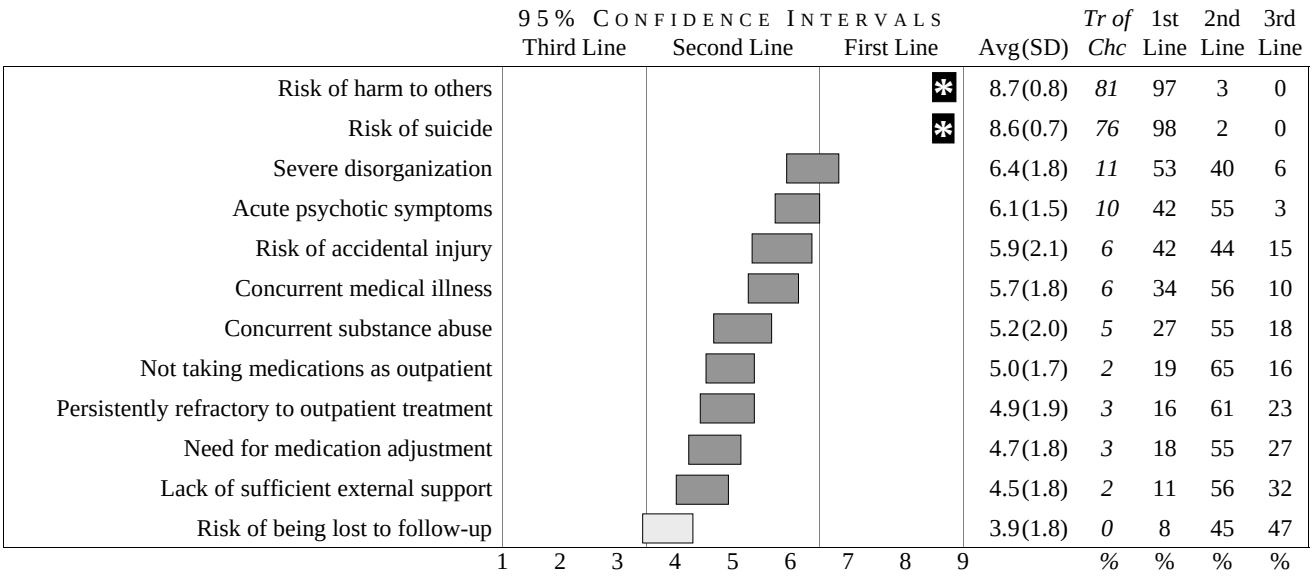
	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Psychosocial services								
Medication monitoring				8.4(1.0)	*68*	94	6	0
Family education and support				8.2(1.2)	*60*	87	13	0
Patient education				7.9(1.6)	*56*	82	18	0
Symptom and side effect monitoring				7.7(1.4)	*44*	73	26	2
Motivational interviewing				7.6(1.7)	*48*	77	19	3
Graduated introduction of interventions				7.4(1.8)	*34*	76	21	3
Timing based on patient's preference				7.1(2.1)	*37*	71	19	10
Programmatic interventions								
Concurrent treatment of substance abuse				8.3(1.1)	*62*	92	8	0
Assertive community treatment services				8.2(1.1)	*56*	92	8	0
Continuity of primary clinician across treatments				7.7(1.5)	*42*	82	16	2
Intensive services (e.g., 1–5 times weekly)				7.7(1.3)	*36*	79	21	0
Supervised residential services				7.0(1.5)	*20*	70	28	2
Rehabilitation services				6.4(1.8)	*15*	52	43	5
Partial hospitalization services				5.7(1.9)	*3*	38	46	16
Involuntary outpatient commitment				5.4(2.1)	*8*	27	52	22
	1 2 3 4 5 6 7 8 9				*%*	%	%	%

10 Rate the importance of the following **processes** when designing and implementing a psychosocial service plan.



	95% Confidence Intervals Third Line	Second Line	First Line	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
History and assessment								
Completing a needs assessment				8.0(1.4)	*56*	87	13	0
Assessing readiness, skills, and supports				7.5(1.4)	*33*	79	21	0
Achieving a therapeutic alliance				7.5(1.7)	*43*	72	26	2
Assessing prior response to psychosocial interventions				7.3(1.6)	*31*	74	23	3
Planning and timing interventions								
Collaborating with patient and family				8.3(1.0)	*60*	94	6	0
Avoiding multiple, concurrent changes				7.7(1.6)	*39*	81	16	3
Ensuring continuity of primary clinician				7.6(1.4)	*37*	77	23	0
Graduated introduction of interventions				7.4(1.7)	*37*	76	23	2
Timing based on patient's preference				7.2(1.7)	*28*	70	26	3
Implementing readiness development activities				6.6(1.9)	*19*	52	38	10
Timing resumption of role functions in home prior to resumption of role functions in the community				5.9(1.8)	*6*	42	48	10
	1 2 3 4 5 6 7 8 9				*%*	%	%	%

11 Rate the appropriateness of the following indications for hospitalizing a patient with schizophrenia.



	Avg(SD)	*Tr of Chc*	1st Line	2nd Line	3rd Line
Risk of harm to others	8.7(0.8)	*81*	97	3	0
Risk of suicide	8.6(0.7)	*76*	98	2	0
Severe disorganization	6.4(1.8)	*11*	53	40	6
Acute psychotic symptoms	6.1(1.5)	*10*	42	55	3
Risk of accidental injury	5.9(2.1)	*6*	42	44	15
Concurrent medical illness	5.7(1.8)	*6*	34	56	10
Concurrent substance abuse	5.2(2.0)	*5*	27	55	18
Not taking medications as outpatient	5.0(1.7)	*2*	19	65	16
Persistently refractory to outpatient treatment	4.9(1.9)	*3*	16	61	23
Need for medication adjustment	4.7(1.8)	*3*	18	55	27
Lack of sufficient external support	4.5(1.8)	*2*	11	56	32
Risk of being lost to follow-up	3.9(1.8)	*0*	8	45	47
		Chc	%	%	%

Expert Consensus Treatment Guidelines for Schizophrenia: A Guide for Patients and Families

If you or someone you care about has been diagnosed with schizophrenia, you may feel like you are the only person facing this illness. But you are not alone—schizophrenia affects almost 3 million Americans. Although widely misunderstood and unfairly stigmatized, schizophrenia is actually a highly treatable brain disease. The treatment for schizophrenia is in many ways similar to that for other medical conditions such as diabetes or epilepsy. The good news is that new discoveries are greatly improving the chances of recovery and making it possible for people with schizophrenia to lead much more independent and productive lives.

This guide is designed to answer the most frequently asked questions about schizophrenia and how it is treated. Many of the recommendations are based on a recent survey of over 100 experts on schizophrenia who were asked about the best ways to treat this illness.

WHAT IS SCHIZOPHRENIA?

What are the symptoms?

The symptoms of schizophrenia are divided into three categories: positive symptoms, disorganized symptoms, and negative symptoms.

Positive or psychotic symptoms

- *Delusions, unusual thoughts, and suspiciousness.* People with schizophrenia may have ideas that are strange, false, and out of touch with reality. They may believe that people are reading their thoughts or plotting against them, that others are secretly monitoring and threatening them, or that they can control other people's minds or be controlled by them.
- *Hallucinations.* People with schizophrenia may hear voices talking to them or about them, usually saying negative, critical, or frightening things. Less commonly, the person may see objects that don't exist.
- *Distorted perceptions.* People with schizophrenia may have a hard time making sense of everyday sights, sounds, smells, tastes, and bodily sensations—so that ordinary things appear frightening. They may be extra-sensitive to background noises, lights, colors, and distractions.

This Guide was prepared by Peter J. Weiden, M.D., Patricia L. Scheifler, M.S.W., Joseph P. McEvoy, M.D., Allen Frances, M.D., and Ruth Ross, M.A. The guide includes recommendations contained in the 1999 *Expert Consensus Treatment Guidelines for Schizophrenia*. The Editors gratefully acknowledge Laurie Flynn and the National Alliance for the Mentally Ill for their generous help and permission to adapt their written materials. Eli Lilly, Janssen Pharmaceutica, Novartis Pharmaceuticals, Ortho-McNeil Pharmaceutical, Pfizer Inc, and Zeneca Pharmaceuticals provided unrestricted educational grants in support of this project.

Negative symptoms.

- *Flat or blunted emotions.* Schizophrenia can make it difficult for people to experience feelings, know what they are feeling, clearly express their emotions, or empathize with other people's feelings. It can be hard for people with such symptoms to relate to others. This can lead to periods of intense withdrawal and profound isolation.
- *Lack of motivation or energy.* People with schizophrenia usually have trouble starting projects or finishing things they've started. In extreme cases, they may have to be reminded to do simple things like taking a bath or changing clothes.
- *Lack of pleasure or interest in things.* To people with schizophrenia, the world seems flat, uninteresting, and cardboard. It feels like it is not worth the effort to get out and do things.
- *Limited speech.* People with schizophrenia often won't say much and may not speak unless spoken to.

Disorganized symptoms

- *Confused thinking and disorganized speech.* People with schizophrenia may have trouble thinking clearly and understanding what other people say. It may be difficult for them to carry on a conversation, plan ahead, and solve problems.
- *Disorganized behavior.* Schizophrenia can cause people to do things that don't make sense, repeat rhythmic gestures, or make ritualistic movements. Sometimes the illness can cause people to completely stop speaking or moving or to hold a fixed position for long periods of time.

When does schizophrenia begin?

Schizophrenia can affect anyone at any age, but it usually starts between adolescence and the age of 40. Children can also be affected by schizophrenia, but this is rare.

The person who is having a first episode of schizophrenia may have been ill for a long time before getting help. Usually he or she comes to treatment because delusions or hallucinations have triggered disturbing behavior. At this point, the person often denies having a mental illness and does not want treatment. With treatment, however, delusions and hallucinations are likely to get much better. Most people make a good recovery from a first episode of schizophrenia, although this can take several months.

What is the usual course of schizophrenia?

The severity of the course varies a lot and often depends on whether the person keeps taking medicine. Patients can be divided into three groups based on how severe their symptoms are and how often they relapse.

The patient who has a mild course of illness and is usually stable

- Takes medication as prescribed all the time
- Has had only one or two major relapses by age 45
- Has only a few mild symptoms

The patient who has a moderate course of illness and is often stable

- Takes medication as prescribed most of the time
- Has had several major relapses by age 45, plus periods of increased symptoms during times of stress
- Has some persistent symptoms between relapses

The patient who has a severe and unstable course of illness

- Often doesn't take medication as prescribed and may drop out of treatment
- Relapses frequently and is stable only for short periods of time between relapses
- Has a lot of bothersome symptoms
- Needs help with activities of daily living (e.g., finding a place to live, managing money, cooking, laundry)
- Is likely to have other problems that make it harder to recover (e.g., medical problems, substance abuse, or a mood disorder)

What are the stages of recovery?

- ***Acute episode*:** this is a period of very intense psychotic symptoms. It may start suddenly or begin slowly over several months.
- ***Stabilization after an acute episode***: After the intense psychotic symptoms are controlled by medication, there is usually a period of troublesome, but much less severe, symptoms.
- ***Maintenance phase or between acute episodes***: This is the longer term recovery phase of the illness. The most intense symptoms of the illness are controlled by medication, but there may be some milder persistent symptoms. Many people continue to improve during this phase, but at a slower pace.

Why is it important to diagnose and treat schizophrenia as early as possible?

Early diagnosis, proper treatment, and finding the right medications can help people in a number of important ways:

- ***Stabilize acute psychotic symptoms.*** The first priority is to eliminate or reduce the positive (psychotic) symptoms, especially when they are disruptive. Most people's psychotic symptoms can be stabilized within 6 weeks from the time they start medication. Antipsychotic medications allow patients to be discharged from the hospital much earlier.
- ***Reduce likelihood of relapse and rehospitalization.*** The more relapses a person has, the harder it is to recover from them. Proper treatment can prevent or delay relapse and break the "revolving door" cycle.
- ***Ensure appropriate treatment.*** Sometimes a person is misdiagnosed as having another disorder instead of schizophrenia. This can be a serious problem because the person may end up taking the wrong medications.
- ***Decrease alcohol/substance abuse.*** More than 50% of people with schizophrenia have problems with alcohol or street drugs at some point during their illness, and this makes matters much worse. Prompt recognition and treatment of this "dual diagnosis" problem is essential for recovery.
- ***Decrease risk of suicide.*** The overall lifetime rate of suicide is over 10%. The risk is highest in the early years of the illness. Fortunately, suicidal behavior is treatable, and the suicide risk eventually decreases over time. Therefore, it is very important to get professional help to avoid this tragic outcome.
- ***Minimize problems in relationships and life disruption.*** Early diagnosis and treatment decrease the risk that the illness will get in the way of relationships and life goals.
- ***Reduce stress and burden on families.*** Schizophrenia places a tremendous burden on families and loved ones. Programs that involve families early in the treatment process reduce relapse and decrease stress and disruption in the family.
- ***Begin rehabilitation.*** Early treatment allows the recovery process to begin before long periods of disability have occurred.

Is schizophrenia inherited?

The answer is yes, but only to a degree. If no one in your family has schizophrenia, the chances are only 1 in 100 that you will have it. If one of your parents or a brother or a sister has it, the chances go up, but only to about 10%. If both your parents have schizophrenia, there is a 40% chance that you will have it. If you have a family member with schizophrenia and you have no signs of the illness by your 30s, it is extremely unlikely that you will get this illness. If you have a parent or brother or sister with schizophrenia, the chances of your children getting schizophrenia are only slightly increased (only to about 3%) and most genetic counselors do not consider this to be a large enough difference to change one's family planning.

Researchers have identified a number of genes that may be linked to the disorder. This suggests that different kinds of biochemical problems may lead to schizophrenia in different people (just as there are different kinds of arthritis). However, many other factors besides genetics are also involved. Research is currently underway to identify these factors and learn how they affect chances of developing the illness. We do know that schizophrenia is ***not*** caused by bad parenting, trauma, abuse, or personal weakness.

MEDICATION TREATMENT

The medications used to treat schizophrenia are called antipsychotics because they help control the hallucinations, delusions, and thinking problems associated with the illness. Patients may need to try several different antipsychotic medications before they find the medicine, or combination of medicines, that works best for them. When the first antipsychotic medication was introduced 50 years ago, this represented the first effective treatment for schizophrenia. Three categories of antipsychotics are now available, and the wide choice of treatment options has greatly improved patients' chances for recovery.

Conventional antipsychotics

The antipsychotics in longest use are called *conventional antipsychotics*. Although very effective, they often cause serious or troublesome movement side effects. Examples are:

Haldol (haloperidol)	Stelazine (trifluoperazine)
Mellaril (thioridazine)	Thorazine (chlorpromazine)
Navane (thiothixene)	Trilafon (perphenazine)
Prolixin (fluphenazine)	

Conventional antipsychotics are becoming obsolete. Because of side effects, experts usually recommend using a newer atypical antipsychotic rather than a conventional.

There are two exceptions. For those individuals who are already doing well on a conventional antipsychotic without troublesome side effects, the experts recommend continuing it. The other exception is when the person has had trouble taking pills regularly. Two of the conventional antipsychotics, Prolixin and Haldol, can be given in long-acting shots (called "depot formulations") at 2- to 4-week intervals. With depot formulations, medication is stored in the body and slowly released. No such depot preparations are yet available for the newer antipsychotics.

Newer atypical antipsychotics

The treatment of schizophrenia has been revolutionized in recent years by the introduction of several *newer atypical antipsychotics*. These medications are called atypical because they work in a different way than the conventional antipsychotics and are much less likely to cause the distressing movement side effects that can be so troubling with the conventional antipsychotics. The following newer atypical antipsychotics are currently available:

- Risperdal (risperidone)
- Seroquel (quetiapine)
- Zyprexa (olanzapine)

Other atypical antipsychotics, such as Zeldox (ziprasidone), may be available in the near future.

The experts recommend the newer atypical medications as the treatment of choice for most patients with schizophrenia.

Clozaril (clozapine)

Clozaril, introduced in 1990, was the first *atypical antipsychotic*. Clozaril can help 25%–50% of patients who have not responded to conventional antipsychotics. Unfortunately, Clozaril has a rare but potentially very serious side effect. In fewer than 1% of those taking it, Clozaril can decrease the number of white blood cells necessary to fight infection. This means that patients receiving Clozaril must have their blood checked regularly. The experts recommend that Clozaril be used only after at least two other safer antipsychotics have not worked.

Selecting medication for a first episode

The experts recommend the newer atypical antipsychotics as the treatment of choice for a patient having a first episode of schizophrenia. This reflects their better side effect profile and lower risk of tardive dyskinesia. Clozapine is not recommended for a first episode because of its side effects.

How long does it take antipsychotics to work?

Usually the antipsychotic medications take a while to begin working. Before giving up on a medicine and switching to another one, the experts recommend trying it for about 6 weeks (and perhaps twice as long for Clozaril).

Selecting medication for relapses

If a person has a relapse because of not taking the medication as prescribed, it is important to find out why he or she stopped taking it. Sometimes people stop taking medication because of troubling side effects. If this happens, the doctor may lower the dose, add a side effect medication, or switch to a medication with fewer side effects (usually an atypical antipsychotic). If the person was not taking the medication for other reasons, the doctor may suggest switching to a long-acting injection given every 2–4 weeks, which makes it simpler to stay on the medication.

Sometimes a person will relapse *despite* taking the medication as prescribed. This is generally a good reason to switch to another medication—usually one of the newer atypical antipsychotics if the person was taking a conventional antipsychotic, or a different newer atypical antipsychotic if the person had already tried an atypical antipsychotic. Fortunately, even if someone has not responded well to a number of other antipsychotics, clozapine is available as a backup and may work when other things have failed.

Medication during the recovery period

We now know that schizophrenia is a highly treatable disease. Like diabetes, a cure has not yet been found, but the symptoms can be controlled with medication in most people. Prospects for the future are constantly brighter through the pioneering explorations in brain research and the development of many new medications. To achieve good results, however, you must stick to your treatment and avoid substance abuse.

It is very important that patients stay in treatment even after recovery. Four out of five patients who stop taking their medications after a first episode of schizophrenia will have a relapse. The experts recommend that first episode patients stay on an antipsychotic medication for 12–24 months before even trying to reduce the dose. Patients who have had more than one episode of schizophrenia or have not recovered fully from a first episode will need treatment for a longer time, maybe even indefinitely. Remember—stopping medication is the most frequent cause of relapse and a more severe and unstable course of illness.

Be sure to take your medicine as directed. Even if you have felt better for a long time, you can still have a relapse if you go off your medication.

What are the possible side effects of antipsychotics?

Because people with schizophrenia have to take their medications for a very long time, it is important to avoid and manage unpleasant side effects.

Perhaps the biggest problem with the conventional antipsychotics is that they often cause muscle movements or rigidity called extrapyramidal side effects (EPS). People may feel slowed down and stiff. Or they may be so restless that they have to walk around all the time and feel like they're jumping out of their skin. The medicine can also cause tremors, especially in the hands and feet. Sometimes the doctor will give a medication called an anticholinergic (usually benztropine [Cogentin]) along with the antipsychotic to prevent or treat EPS. The atypical antipsychotics are much less likely to cause EPS than the conventional antipsychotics.

When people take antipsychotic medications for a long time, they sometimes develop a side effect called *tardive dyskinesia*—uncontrolled movements of the mouth, a protruding tongue, or facial grimaces. Hands and feet may move in a slow rhythmical pattern without the person wishing this to happen and sometimes even without the person being aware of it. The chances of developing this side effect can be reduced by using the lowest possible effective dose of antipsychotic medication. If someone taking a conventional antipsychotic develops tardive dyskinesia, the experts recommend switching to an atypical antipsychotic.

Medications for schizophrenia can cause problems with sexual functioning that may make patients stop taking them. The doctor will usually treat these problems by lowering the dose of antipsychotic to the smallest effective dose or switching to a newer atypical antipsychotic.

Weight gain can be a problem with all the antipsychotics, but it is more common with the atypical antipsychotics than the conventional antipsychotics. Diet and exercise can help.

A rare side effect of antipsychotic medications is neuroleptic malignant syndrome, which involves very severe stiffness and tremor that can lead to fever and other severe complications. Such symptoms require the doctor's immediate attention.

Tell your doctor right away about any side effects you have

Different people have different side effects, and some people may have no problems at all with side effects. Also, what is a troublesome side effect for one person (for example, sedation in someone who already feels lethargic because of the illness) may be a helpful effect for someone else (sedation in someone who has trouble sleeping).

It can also be very hard to tell if a problem is part of the illness or is a side effect of the medication. For example, conventional antipsychotics can make you feel slowed down and tired—but so can the lack of energy that is a negative symptom of schizophrenia.

If you develop any new problem while taking an antipsychotic, tell your doctor right away so that he can decide if it is a side effect of your medication. If side effects are a problem for you, you and your doctor can try a number of things to help:

- *Waiting a while to see if the side effect goes away on its own*
- *Reducing the amount of medicine*
- *Adding another medication to treat the side effect*
- *Trying a different medicine (especially an atypical antipsychotic) to see if there are fewer or less bothersome side effects*

Remember: Changing medicine is a complicated decision. It is dangerous to make changes in your medicine on your own! Changes in medication should also be made slowly.

PSYCHOSOCIAL TREATMENT AND REHABILITATION

Although medication is almost always necessary in the treatment of schizophrenia, it is not usually enough by itself. People with schizophrenia also need services and support to overcome the illness and to deal with the fear, isolation, and stigma often associated with it. In the following sections, we present the experts' recommendations for the kinds of psychosocial treatment, rehabilitation services, and living arrangements that may be helpful at various stages of recovery. These recommendations are intended to be guidelines, not rules. Each patient is unique, and special circumstances may affect the choice of which services are best for a specific patient at a particular time during recovery. Also, some communities have a lot of different services to choose from, while others unfortunately have only a few. It is important for you to find out what services are available to you in your community (and when necessary to advocate for more).

Key components of psychosocial treatment

Patient and family education. Patient, family, and other key people in the patient's life need to learn as much as possible about what schizophrenia is and how it is treated, and to develop the knowledge and skills needed to avoid relapse and work toward recovery. Patient and family education is an ongoing process that is recommended throughout all phases of the illness.

Collaborative decision making. It is extremely important for patient, family, and clinician to make decisions *together* about treatments and goals to work toward. Joint decision making is recommended at every stage of the illness. As patients recover, they can take an increasingly active part in making decisions about the management of their own illness.

Medication and symptom monitoring. Careful monitoring can help ensure that patients take medication as prescribed and identify early signs of relapse so that preventive steps can be taken. A checklist of symptoms and side effects can be used to see how well the medication is working, to check for signs of relapse, and to figure out if efforts to decrease side effects are successful. Medication can be monitored by helping the person fill a weekly pill box or by providing supervision at medication times.

Assistance with obtaining medication. Paying for treatment is often difficult. Health insurance coverage for psychiatric illnesses, when available, may have high deductibles and copayments, limited visits, or other restrictions that are not equal to the benefits for other medical disorders. Public programs such as Medicaid and Medicare may be available to finance treatment. The newer medications that can be so helpful for most patients are unfortunately more expensive than the older ones. The treatment team, patient, and family should explore available ways to get access to the best medication by working through public or private insurance, copayment waivers, indigent drug programs, or drug company compassionate need programs.

Assistance with obtaining services and resources. Patients often need help obtaining services (such as psychiatric, medical, and dental care) and help in applying for programs like disability income and food stamps. Such assistance is especially important for people having their first episode and for those who are more severely ill.

Arrange for supervision of financial resources. Some patients may need at least temporary help managing their finances—especially those with a severe and unstable course of illness. If so, a responsible person can be named as the patient's "representative payee." Disability checks are then sent to the representative payee who helps the patient pay bills, gives advice about spending, and helps the patient avoid running out of money before the next check comes.

Training and assistance with activities of daily living. Most people who are recovering from schizophrenia want to become more independent. Some people may need assistance learning how to better manage everyday things like shopping, budgeting, cooking, laundry, personal hygiene, and social/leisure activities.

Supportive Therapy involves providing emotional support and reassurance, reinforcing health-promoting behavior, and helping the person accept and adjust to the illness and make the most of his or her capabilities. Psychotherapy by itself is not effective in treating schizophrenia. However, individual and group therapy can provide important support, skill building, and friendship for patients during the stabilization phase after an acute episode and during the maintenance phase.

Peer support/self-help group. Almost all mutual support groups are run by peers rather than professionals. Many of these groups meet 1–4 times a month, depending on the needs and interest of the members. Guest speakers are sometimes invited to add education to the fellowship, caring, sharing, discussion, peer advice, and mutual support that are vital parts of most consumer support groups. Peer support/self-help groups can play a very important role in the recovery process, especially when patients are stabilizing after an acute episode and during long-term maintenance.

Types of services most often needed

Doctor and therapist appointments for medication management and supportive therapy. It is very important to keep appointments with your doctor and therapist during every phase of the illness. These appointments are a necessary part of treatment regardless of where you are in the recovery process—during an acute episode, stabilizing after an acute episode, and during long-term recovery and maintenance. It may be tempting to skip appointments when your symptoms are under control, but continued treatment during *all* phases of recovery is extremely important in preventing relapse. Many people with schizophrenia also need one or more of the services described below to make the best recovery possible.

Assertive community treatment (ACT). Instead of patients going to a mental health center, the ACT multidisciplinary team works with them at home and in the community. ACT teams are staffed to provide intensive services, so they can visit often—even every day if needed. ACT teams help people with a lot of different things like medication, money management, living arrangements, problem solving, shopping, jobs, and school. ACT is a long-term program that can continue to follow the person through all phases of the illness. The experts strongly recommend ACT programs, especially for patients who have a severe and unstable course of illness.

Rehabilitation. Three types of rehabilitation programs may help patients during the long-term recovery and maintenance phase of the illness. Rehabilitation may be especially important for patients who need to improve their job skills, want to work, have worked in the past, and have few remaining symptoms.

- *Psychosocial rehabilitation*: a clubhouse program to help people improve work skills with the goal of getting and keeping a job. Fountain House and Thresholds are two well-known examples.
- *Psychiatric rehabilitation*: a program teaching skills that will allow people to define and achieve personal goals regarding work, education, socialization, and living arrangements.
- *Vocational rehabilitation*: a work assessment and training program that is usually part of Vocational Rehabilitation Services (VRS). This type of rehabilitation helps people prepare for full-time competitive employment.

Intensive partial hospitalization. Patients in Partial Hospitalization Programs (PHPs) typically attend structured groups for 4 to 6 hours a day, 3 to 5 days a week. These education, therapy, and skill building groups are designed to help people avoid hospitalization or get out of the hospital sooner, get symptoms under control, and avoid a relapse. A PHP is usually recommended for patients during acute episodes and while stabilizing after an acute episode.

Aftercare day treatment. Day Treatment Programs (DTPs) typically provide a place to go, a sense of belonging and friendship, fun things to do, and a chance to learn and practice skills. They also provide long-term support and an improved quality of life. DTPs can help patients while they are stabilizing after an acute episode and during long-term recovery and maintenance.

Case management. Case managers usually go out to see people in their homes instead of making appointments at an office or clinic. They can help people get the basic things they need such as food, clothes, disability income, a place to live, and medical treatment. They can also check to be sure patients are taking their medication, help them manage money, take them grocery shopping, and teach them skills so they can be more independent. Having a case manager is helpful for many people with schizophrenia.

Types of living arrangements

Treatment won't work well if the person does not have a good and stable place to live. A number of residential options have been developed for patients with schizophrenia—unfortunately, they are not all available in every community.

***Brief respite/crisis home*:** an intensive residential program with on-site nursing/clinical staff who provide 24-hour supervision, structure, and treatment. This level of care can often help prevent hospitalization for patients who are relapsing. Brief respite/crisis homes can be a good choice for patients during acute episodes and sometimes during the stabilization phase after an acute episode.

Transitional group home: an intensive, structured program that often includes in-house daily training in living skills and 24-hour awake coverage by paraprofessionals. Treatment may be provided in-house or the resident may attend a treatment or rehabilitation program during the day. Transitional homes can help patients while they are stabilizing after an acute episode and can often serve as the next step after hospitalization or a brief respite/crisis home. They can also be helpful during an acute relapse if a brief respite/crisis home is not available.

Foster or boarding homes: supportive group living situation owned and operated by lay people. Staff usually provide some supervision and assistance during the day and a staff member typically sleeps in the home at night. Foster homes and boarding homes are recommended for patients during long-term recovery and maintenance, especially if other options (living with family,

a supervised/supported apartment, or independent living) are not available or do not fit patient/family needs and preferences.

Supervised or supported apartments: a building with several one- or two-bedroom apartments, with needed support, assistance, and supervision provided by a specially trained residential manager who lives in one of the apartments or by periodic visits from a mental health provider and/or family members. These types of apartments are recommended for patients during long-term recovery and maintenance.

Living with family: For some people, living with family may be the best long-term arrangement. For others, this may be needed only during acute episodes, especially if other types of residence are not available or the patient and family prefer to live together.

Independent living: This type of living arrangement is strongly recommended during long-term recovery and maintenance, but may not be possible during acute episodes of the illness and for patients with a more severe course of illness who may find it hard to live independently.

OTHER TREATMENT ISSUES

Hospitalization

Patients who are acutely ill with schizophrenia may occasionally require hospitalization to treat serious suicidal inclinations, severe delusions, hallucinations, or disorganization and to prevent injury to self or others. Hospitalizations usually last 1 to 2 weeks. However, longer hospitalization may be needed for first episodes or if the person is slow to respond to treatment or has other complications.

It is important for family members to be in touch with the hospital staff so they can tell them what medications the person has received in the past and what worked best. It is useful for the family to be proactive in working with the staff to make living and financial arrangements for the patient after discharge. Family should ask the staff to give them information about the patient's illness and discuss ways to help the patient stick with outpatient treatment.

After discharge

Patients are usually not fully recovered when they are discharged from inpatient care. This can be a difficult time with increased risks for relapse, substance abuse, and suicide. It is important to be sure that a follow-up outpatient appointment has been scheduled, ideally within a week after discharge, and that the inpatient staff has provided the patient with enough medication to last until that appointment. Ask the staff for an around-the-clock phone number to call if there is a problem. It is a good idea for someone to call the patient shortly before the first appointment as a reminder. If the patient fails to show up, everyone should work to make another appointment and to get the person there for it. Good follow-up care is the best way to avoid a severe course with repeated revolving-door hospitalizations.

Involuntary outpatient commitment

Involuntary outpatient commitment and "conditional release" use a court order to require people to take medication and stay in treatment in the community. While not a first line treatment, resorting to legal pressure to require compliance with treatment may sometimes be helpful for patients who deny their illness and relapse frequently.

Postpsychotic depression

Depression is not uncommon during the maintenance phase of treatment after the active psychotic symptoms have resolved. It is important for patients and family members to alert the treatment team if a patient who has been improving develops depressive symptoms, since this can interfere with the person's recovery and increase the risk of suicide. The doctor may suggest an antidepressant medication, which can help relieve the depression. A psychiatric rehabilitation program may benefit patients experiencing postpsychotic depression who see little hope for the future. Family and patient education can help everyone understand that postpsychotic depression is just a part of the recovery process and can be treated successfully. Peer self-help groups may also provide valuable support for patients who have postpsychotic depression.

Medical problems associated with schizophrenia

Patients with schizophrenia often get very inadequate care for their medical illnesses. This is particularly unfortunate because they are at increased risk for the complications of smoking, obesity, hypertension, substance abuse, diabetes, and cardiovascular problems. The experts therefore recommend regular monitoring for medical illness and close collaboration between the mental health clinicians and the primary care doctor.

WHAT CAN I DO TO HELP MY DISORDER?

You and your family should learn as much as possible about the disorder and its treatments. There are also a number of other things you can do to help cope with the illness and prevent relapses.

Avoid alcohol or illicit drugs

The use of these substances provides a short-term lift but they have a devastating effect on the long-term course of the illness. Programs to help control substance problems include dual diagnosis treatment programs, group therapy, education, or counseling. If you can't stop using alcohol or substances, you should still take your antipsychotic medication. Although mixing the two is not a great idea, stopping the antipsychotic medication is a much worse one.

Become familiar with early warning signs of a relapse

Each individual tends to have some "signature" signs that warn of a coming episode. Some individuals may become increasingly suspicious, worry that other people are talking about them, have altered perceptions, become more irritable or withdrawn, have trouble interacting with others or expressing themselves clearly, or express bizarre ideas. Learn to identify your own warning signals. When these signs appear, speak to your doctor as soon as possible so that your medications can be adjusted. Family members may also be able to help you identify early warning signs of relapse.

Don't quit your treatment

It is normal to have occasional doubts and discomfort with treatment. Be sure to discuss your concerns and discomforts with your doctor, therapist, and family. If you feel a medication is not working or you are having trouble with side effects, tell your doctor—don't stop or adjust your medication on your own. Symptoms that come back after stopping medication are sometimes much harder to treat. Likewise, if you are not satisfied with the program you are in, talk to your therapist about what other services are available. With all the new treatment options, you, your doctor, and your therapist can work together to find the best and most comfortable program for you.

WHAT CAN FAMILIES AND FRIENDS DO TO HELP?

Once you find out that someone close to you has schizophrenia, expect that it will have a profound impact on your life and that you will need help in dealing with it. Because so many people are afraid and uninformed about the disease, many families try to hide it from friends and deal with it on their own. If someone in your family has schizophrenia, you need understanding, love, and support from others. No one causes schizophrenia, just as no one causes diabetes, cancer, or heart disease. You are not to blame—and you are not alone.

Help the person find appropriate treatment and the means to pay for it

The most important thing you can do is to help the person find effective treatment and encourage him or her to stick with it. To find a good doctor or clinic, contact your local mental health center, ask your own physician for a referral, or contact the psychiatry department of a university medical school or the American Psychiatric Association. You can contact the National Alliance for the Mentally Ill (NAMI) to consult with others who have a family member with schizophrenia or who have the disorder themselves.

It is also important to help the person find a way to pay for the medications he or she needs. Social workers or case managers may be able to help you through the difficult red tape, but you may also have to contact your local Social Security or social services office directly to find out what benefits are available in your area and how to apply for them. Finding the way through the maze of application processes is difficult even for those who are not ill. A person with schizophrenia will certainly need your help to obtain adequate benefits.

Learn about the disorder

If you are a family member or friend of someone with schizophrenia, learn all you can about the illness and its treatment. Don't be shy about asking the doctor and therapist questions. Read books and go to National Alliance for the Mentally Ill (NAMI) meetings.

Encourage the person to stick with treatment

The most important factors in keeping patients out of the hospital are for them to take their medications regularly and avoid alcohol and street drugs. Work with your loved one to help him or her remember to take the medicine. Long-acting injectable forms of medication can help patients who find it hard to take a pill every day.

Handling symptoms

Try your best to understand what your loved one is going through and how the illness causes upsetting or difficult behavior. When people are hallucinating or delusional, it's important to realize that the voices they hear and the images they see are very real to them and difficult to ignore. You should not argue with them, make fun of or criticize them, or act alarmed.

After the acute episode has ended, it is a good time for the patient, the family, and the healthcare provider to review what has been learned about the person's illness in a low-key and non-blaming way. Everyone can work together to develop plans for minimizing the problems and distress that future episodes may cause. For example, the family members can ask the person with schizophrenia to agree that, if they notice warning signs of a relapse, it will be OK for them to contact the doctor so that the medication can be adjusted to try to prevent the relapse.

Learn the warning signs of suicide

Take any threats the person makes *very seriously*. Seek help from the patient's doctor and other family members and friends. Call 911 or a hospital emergency room if the situation becomes desperate. Encourage the person to realize that suicidal thinking is a symptom of the illness and will pass in time as the treatment takes effect. Always stress that the person's life is important to you and to others and that his or her suicide would be a tremendous loss and burden to you, not a relief.

Learn to recognize warning signs of relapse

Learn the warning signs of a relapse. Stay calm, acknowledge how the person is feeling, indicate that it is a sign of a return of the illness, suggest the importance of getting medical help, and do what you can to help him or her feel safe and more in control.

Don't expect too fast a recovery

When people are recovering from an acute psychotic episode, they need to approach life at their own pace. Don't push too hard. At the same time, don't be too overprotective. Do things *with* them, rather than *for* them, so they can regain their sense of self-confidence. Help the person prioritize recovery goals.

People with schizophrenia may have many health problems. They often smoke a lot and may have poor nutrition and excessive weight gain. Although you can encourage the patient to try to control these problems, it is important not to put a lot of pressure on him or her. Focus first on the most important issues: medication adherence and avoiding alcohol and drug use. Your top priority should be to help the patient avoid relapse and maintain stability.

Handling crises

In some cases, behavior caused by schizophrenia can be bizarre and threatening. If you are confronted with such behavior, do your best to stay calm and nonjudgmental, be concise and direct in whatever you say, clarify the reality of the situation, and be clear about the limits of acceptable behavior. Don't feel that you have to handle the situation alone. Get

medical help. Your safety and the safety of the ill person should always come first. When necessary, call the police or 911.

Coping with schizophrenia

Many people find that joining a family support group is a turning point for them in their struggle to understand the illness and get help for their relative and themselves. More than 1,000 such groups affiliated with the National Alliance for the Mentally Ill (NAMI) are now active in local communities in all 50 states. Members of these groups share information and strategies for everything from coping with symptoms to finding financial, medical, and other resources.

Families who deal most successfully with a relative who has schizophrenia are those who come to accept the illness and its difficult consequences, develop realistic expectations for the ill person and for themselves, accept all the help and support they can get, and also keep a philosophical perspective and a sense of humor. It takes times to develop these attitudes, but the understanding support of others can be a great help.

Schizophrenia poses undeniable hardships for everyone in the family. To deal with it in the best possible way, it's particularly important for you to take care of yourself, do things you enjoy, and not allow the illness to consume your life. Experts on schizophrenia believe that recently introduced new treatments are already a big improvement and that new research discoveries will bring a better understanding of schizophrenia that will result in even more effective treatments. In the meantime, help the patient live the best life he or she can *today*, and do the same for yourself.

SUPPORT GROUPS

NAMI

The National Alliance for the Mentally Ill (NAMI) is the national umbrella organization for more than 1,140 local support and advocacy groups for families and individuals affected by serious mental illnesses. To learn more about NAMI or locate your state's NAMI affiliate or office, contact:

NAMI
200 N. Glebe Rd., Suite 1015
Arlington, VA 22203-3754
NAMI Helpline at 800-950-NAMI (800-950-6264).

Several other organizations can also help you locate support groups and information:

National Depressive and Manic-Depressive Association
730 N. Franklin St., Suite 501
Chicago IL, 60610-3526
800-82-NDMDA (800-826-3632)

National Mental Health Association (NMHA)
National Mental Health Information Center
1021 Prince Street
Alexandria, VA 22314-2971
800-969-6642

The National Mental Health Consumer Self Help Clearinghouse
1211 Chestnut St., 11th Floor
Philadelphia, PA 19107
800-688-4226

FOR MORE INFORMATION

The following materials provide more information on schizophrenia. Most are available through NAMI. To order or to obtain a complete publications list, write NAMI or call 703-524-7600.

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The following videos may be ordered from: Division of Social and Community Psychiatry, Box 3173, Duke University Medical Center, Durham, NC 27710.

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Expert Consensus Guidelines are in preparation for:

Posttraumatic Stress Disorder

Psychiatric and Behavioral Problems in Mental Retardation

Attention-Deficit/Hyperactivity Disorder

Bipolar Disorder 1999

Depression in Women

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