

CME Article

Ministry of Health Clinical Practice Guidelines: Schizophrenia

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ABSTRACT

The Ministry of Health (MOH) has updated the clinical practice guidelines on Schizophrenia to provide doctors and patients in Singapore with evidence-based treatment for schizophrenia. This article reproduces the introduction and executive summary (with recommendations from the guidelines) from the MOH clinical practice guidelines on Schizophrenia, for the information of readers of the Singapore Medical Journal. Chapters and page numbers mentioned in the reproduced extract refer to the full text of the guidelines, which are available from the Ministry of Health website: <http://www.moh.gov.sg/mohcorp/publications.aspx?id=26138>. The recommendations should be used with reference to the full text of the guidelines. Following this article are multiple choice questions based on the full text of the guidelines.

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INTRODUCTION**1.1 An overview of schizophrenia****Clinical features**

Schizophrenia is a mental illness characterised by a multiplicity of symptoms affecting the fundamental human attributes: cognition, emotion and perception. The early age of onset, varying degree of intellectual and psychosocial impairment and possibility of long-term disability makes schizophrenia one of the most severe and devastating mental illnesses. People with schizophrenia also suffer disproportionately from an increased incidence of general medical illness and increased mortality, especially from suicide, which occurs in up to 10% of patients.

No single symptom is pathognomonic of schizophrenia. Symptoms of schizophrenia are divided into four categories: positive, negative, disorganised and cognitive symptoms. Various combinations of severity in these four categories are found in patients.

- Positive symptoms are those that appear to reflect the presence of mental features that should not normally be present. These include delusions and hallucinations.
- Negative symptoms are those that appear to reflect

a diminution or loss of normal emotional and psychological functions. These include affective flattening (difficulty in expressing emotions), alogia (limited speech with consequent difficulty in maintaining a continuous conversation or saying anything new), avolition (extreme apathy with lack of initiation, drive and energy, which result in academic, vocational and social deterioration), anhedonia (lack of pleasure or interest in life) and asociality (social withdrawal and few social contacts). Negative symptoms are less obvious and often persist even after the resolution of positive symptoms.

- Cognitive symptoms include impairment in attention, reasoning and judgement, and difficulty in processing information.
- Disorganised symptoms refer to disturbances in thinking, speech, behaviour and incongruous affect. These psychological and behavioural disturbances are associated with a variety of impairments in occupational or social functioning. Although there can be marked deterioration with impairments in multiple domains of functioning (e.g. learning, self-care, working, interpersonal relationships, and living skills), the manifestation of the disorder can vary across persons and within persons over time. Individuals with schizophrenia may also experience symptoms of other mental disorders, including depression, obsessive and compulsive symptoms, somatic concerns, and other mood or anxiety symptoms.

Aetiology of schizophrenia

Schizophrenia is a complex disorder and arises from a combination of risk factors, including genetic vulnerability. Although more than 80% of patients with schizophrenia have parents who do not have the disorder, the risk of having schizophrenia is greater in persons whose parents have the disorder; the lifetime risk is 13% for a child with one parent with schizophrenia, 35%–40% for a child with two affected parents and about 50% concordance rate among monozygotic twins. The genetic vulnerability arises from a complex combination of multiple genes of small effect. Environmental risk factors are also necessary and some operate early in life.

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Changi General
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Natural history and course

The peak incidence of schizophrenia is at 21 years. The onset is earlier for men (between ages 15 and 25 years) and later in women (between ages 25 and 35 years). Childhood onset schizophrenia is rare, and psychotic symptoms in this age group may not always be indicative of schizophrenia.

The first psychotic episode is often preceded by a prodromal phase. This phase involves a change from premorbid functioning and extends up to the time of the onset of frank psychotic symptoms. It may last for weeks or even years. During the prodromal phase, the person experiences substantial functional impairment and nonspecific symptoms such as sleep disturbance, anxiety, irritability, depressed mood, poor concentration, fatigue, and behavioural deficits such as deterioration in role functioning and social withdrawal. Perceptual abnormalities and suspiciousness may emerge later in the prodromal phase.

The psychotic phase progresses through an acute phase, a recovery or stabilisation phase and a stable phase. The acute phase refers to the presence of florid psychotic features such as delusions, hallucinations, formal thought disorder, and disorganised thinking. The stabilisation (recovery) phase refers to a period after acute treatment. During the stable phase, negative and residual positive symptoms that may be present are relatively consistent in magnitude and usually less severe than in the acute phase. Some patients may be asymptomatic whereas others experience nonpsychotic symptoms such as tension, anxiety, depression or insomnia.

The longitudinal course of schizophrenia is variable. Complete remission with a full return to a premorbid level of functioning is not common, although some individuals are free from further episodes. The outcome following first admission and first diagnosis of schizophrenia with follow-up time of more than one year suggests that less than 50% of patients have a good outcome – this is thought to be due to unexplained heterogeneity rather than uniform poor outcome. A small proportion (10%–15%) will remain chronically and severely psychotic. Early detection and treatment, however, would lead to a better outcome.

The management of schizophrenia should take a holistic and multidisciplinary approach. The type and range of intervention is, to a large extent, specific to the different phases of the illness. In the acute phase of the illness, the patient requires specialised psychiatric care.

Family physicians play an important role in the early detection of those who are psychotic. They are also important in managing patients who are stabilised but require maintenance pharmacotherapy. Most of these stabilised patients are best managed in the community.

Further, as the rate of physical illnesses like cardiovascular diseases, obesity and diabetes mellitus are higher among patients with schizophrenia as compared to the general population, family physicians would be able to screen and treat these illnesses.

1.2 Objectives

This guideline is an update of an earlier guideline on schizophrenia published by the Ministry of Health, Singapore in 2003. These guidelines are developed to provide information to clinicians on the evidenced-based treatment for schizophrenia.

1.3 Scope of this guideline

This guideline covers the treatment of schizophrenia in the general adult population. These guidelines do not cover management of other psychotic disorders like Brief Psychotic Disorders, Schizoaffective Disorders, Bipolar Disorders with psychotic symptoms or Delusional Disorders. This guideline provides recommendations for the treatment of acute symptoms, maintenance pharmacotherapy, treatment-resistant schizophrenia, adjunctive medication, psychosocial interventions and schizophrenia during pregnancy. Cost-effectiveness issues are also considered in this guideline.

1.4 Who this guideline is for

This guideline is intended primarily for all doctors and allied healthcare professionals treating patients with schizophrenia. With the introduction of the Chronic Disease Management Programme (CDMP) in Psychiatry, the care of stable patients with schizophrenia is being transferred to general practitioners in primary care, and these guidelines will serve as a useful resource for them.

1.5 Development process of this guideline

This guideline was developed by a multidisciplinary workgroup appointed by the Ministry of Health, Singapore. The workgroup consisted of a family practitioner, a family therapist, a healthcare administrator, occupational therapists, a patient advocate, pharmacists, psychiatrists and psychologists. This guideline was developed by reviewing relevant literature, adapting existing guidelines and by expert clinical consensus with consideration of local practice.

1.6 What's new in this revised guideline

- The chapter on treatment of acute symptoms has been enhanced by recommendations for first-episode and relapse of schizophrenia.
- The chapter on maintenance pharmacotherapy has been

enhanced with recommendations for monitoring of metabolic side effects and combining antipsychotics.

- The chapter on psychosocial rehabilitation has new recommendations on rehabilitation, cognitive remediation therapy and assertive community treatment.

1.7 Review of guidelines

Evidence-based guidelines are only as current as the evidence that supports them. Users must keep in mind that new evidence could supercede recommendations in this guideline. The workgroup advises that this guideline be scheduled for review five years after publication, or when new evidence appears that requires substantive changes to the recommendations made in this guideline.

Executive summary of recommendations

Details of the recommendations listed can be found in the main text as the pages indicated.

Treatment of acute symptoms

GPP The preliminary step in management involves establishing diagnosis and ruling out psychoses that could be secondary to physical morbidity or substance use. The patient's social supports, functioning and relative risk of self-harm or harm to others must be evaluated for choice of treatment setting (pg 11).

A People newly diagnosed with schizophrenia should be offered oral antipsychotic medication (pg 11).

Grade A, Level 1++

GPP Clinicians must provide information and discuss the benefits and side effect profile of each drug with the patient (pg 11).

GPP

A The recommended optimal oral dose of antipsychotic is 300–1,000 mg chlorpromazine equivalents daily for an adequate duration of 4–6 weeks. Treatment should be started at the lower end of the licensed dosage range and slowly titrated upwards (refer to table in Annex II) (pg 12).

Grade A, Level 1++

D If there is inadequate response by 4–6 weeks or if patient develops intolerable side effects, the medication should be reviewed and another typical or an atypical antipsychotic should be used (refer to

algorithm in Annex II) (pg 12).

Grade D, Level 4

A Oral antipsychotics should be used as first-line treatment for patients with an acute relapse of schizophrenia (pg 13).

Grade A, Level 1++

GPP Choice of antipsychotic should take into account the patient's previous treatment response, side effect experience, comorbid conditions, compliance history and preference (pg 13).

GPP

Maintenance pharmacotherapy

A For maintenance therapy, antipsychotic dose should be reduced gradually to the lowest possible effective dose, which should not be lower than half of the effective dose during the acute phase (pg 14).

Grade A, Level 1+

B Combination of antipsychotics is not recommended except during transitional periods when patients are being switched from one antipsychotic to another, or when used for clozapine augmentation (refer to Annex II) (pg 14).

Grade B, Level 2++

GPP C Long-acting depot antipsychotics may be indicated in patients in whom treatment adherence is an issue or when a patient expresses a preference for such treatment (pg 14).

Grade C, Level 2+

B Long-acting depot antipsychotics should not be used for acute episodes because it may take 3–6 months for the medications to reach a stable steady state (pg 15).

Grade B, Level 2++

C Patients receiving atypical antipsychotics should be regularly monitored for metabolic side effects (refer to Annex III) (pg 15).

Grade C, Level 4

Management of treatment-resistant schizophrenia

A Clozapine should be offered to patients whose illness has not responded adequately to treatment despite the sequential use of adequate doses and duration of at least two different antipsychotics (pg 16).

Grade A, Level 1++

GPP For all patients on clozapine, clinicians should have their full blood count monitored weekly for the first 18 weeks and monthly thereafter (pg 16).

GPP

D Electroconvulsive therapy should be considered for patients who have not responded to an adequate trial of antipsychotics and for patients with life-threatening symptoms such as catatonia and prominent depressive symptoms (pg 16).

Grade D, Level 3

A Electroconvulsive therapy should not be prescribed as first-line treatment or monotherapy in schizophrenia (pg 17).

Grade A, Level 1+

Adjunctive medications

A Antidepressants should be considered when depressive symptoms emerge during the stable phase of schizophrenia (post-psychotic depression) (pg 18).

Grade A, Level 1+

D Antidepressants should be used at the same dose as for treatment of major depressive disorder (pg 18).

Grade D, Level 4

A Anticholinergic agents have been shown to be effective in reducing the severity of antipsychotic-induced extrapyramidal side effects and may be prescribed to patients experiencing these side effects (pg 19).

Grade A, Level 1+

Psychosocial interventions

GPP Psychosocial interventions should be tailored to the needs of the patients (pg 21).

GPP

A Patients and their family members should be educated about the illness, its course and prognosis as well as the efficacy of the various medications, the anticipated side effects and costs. Family interventions should also incorporate support, problem-solving training and crisis intervention (pg 21).

Grade A, Level 1+

A Early psycho-education and family intervention should be offered to patients with schizophrenia and their families (pg 22).

Grade A, Level 1+

B Sheltered, transitional or supported employment should be offered to patients with schizophrenia as part of a psychiatric rehabilitation programme to enhance their vocational skills (pg 22).

Grade B, Level 2++

A Cognitive remediation may be considered to improve attention, memory and executive function among people with schizophrenia (pg 23).

Grade A, Level 1+

A Cognitive remediation should be provided by occupational therapists within the framework of a psychiatric rehabilitation programme, with a functional goal in mind (pg 23).

Grade A, Level 1+

A Psychological therapy, in particular Cognitive Behaviour Therapy (CBT), administered in combination with routine care should be considered for patients with schizophrenia, particularly those with persistent negative and positive symptoms (pg 23).

Grade A, Level 1+

A Assertive Community Treatment should be recommended for patients with high rates of hospitalization as well as for those patients with a high potential for homelessness (pg 24).

Grade A, Level 1+

Pregnancy

D Treatment options for schizophrenia patients who are pregnant should be individualised, with consideration of severity of previous episodes, duration of remission since last episode, response to treatment and the woman's preference after full and informed discussion (pg 25).

Grade D, Level 4

GPP Schizophrenia patients who are pregnant should be referred for urgent specialist consultation if they have not been seen by a specialist before (pg 25).

GPP

GPP Abrupt cessation of medications should be avoided in schizophrenia patients who are pregnant, as it can increase the risk of relapse, particularly in the early weeks of pregnancy when hormonal changes make the woman more vulnerable (pg 25).

GPP

D Healthcare providers should provide psycho-education to women with schizophrenia in the childbearing age group on the risk considerations in pregnancy and counsel patients on family planning and sexuality issues, as appropriate (pg 26).

Grade D, Level 4

SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

Multiple Choice Questions (Code SMJ 201107B)

These questions are based on the full text of the guidelines which may be found at <http://www.moh.gov.sg/mohcorp/publications.aspx?id=26138>.

- | | True | False |
|---|--------------------------|--------------------------|
| Question 1. The following is true of the treatment of schizophrenia in pregnancy and the postpartum: | | |
| (a) All psychotropic medication must be stopped. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) There is a risk of relapse in the postpartum. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Care should also be taken to look out for postpartum depressive states. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Breastfeeding is absolutely contraindicated. | <input type="checkbox"/> | <input type="checkbox"/> |
|
Question 2. Regarding electroconvulsive therapy: | | |
| (a) It is used as a first-line therapy for schizophrenia. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) It is more effective than antipsychotics in the acute treatment of schizophrenia. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) It is effective in the treatment of chronic schizophrenia. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) It may be considered in patients who have not responded to an adequate trial of antipsychotic therapy. | <input type="checkbox"/> | <input type="checkbox"/> |
|
Question 3. Regarding the use of anticholinergic agents: | | |
| (a) They are effective in treating antipsychotic induced extrapyramidal side effects such as dystonia and parkinsonism. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Other interventions to reduce the burden of extrapyramidal side effects include raising the dose of antipsychotics. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) The prophylactic use of anticholinergics may be considered for those patients needing higher doses of antipsychotics. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) The use of anticholinergics do not carry any inherent risks. | <input type="checkbox"/> | <input type="checkbox"/> |
|
Question 4. Psychological therapy can assist patients with schizophrenia through: | | |
| (a) Helping to reduce the severity of symptoms. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Addressing related issues such as anxiety and depression. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Improving coping skills. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Eliminating stress and negative thoughts. | <input type="checkbox"/> | <input type="checkbox"/> |
|
Question 5. Antipsychotic medications: | | |
| (a) Start showing response by two weeks, and sometimes take several weeks to achieve remission. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Clinicians should wait for at least for one year before considering switching to another antipsychotic if there is no response to the first antipsychotic medication. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Atypical antipsychotics are superior to typical antipsychotics in terms of efficacy. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Typical antipsychotics have more propensity to cause extrapyramidal side effects than atypical antipsychotics. | <input type="checkbox"/> | <input type="checkbox"/> |

Doctor's particulars:

Name in full: _____

MCR number: _____ Specialty: _____

Email address: _____

SUBMISSION INSTRUCTIONS:

(1) Log on at the SMJ website: <http://www.sma.org.sg/cme/smj> and select the appropriate set of questions. (2) Select your answers and provide your name, email address and MCR number. Click on "Submit answers" to submit.

RESULTS:

(1) Answers will be published in the SMJ September 2011 issue. (2) The MCR numbers of successful candidates will be posted online at www.sma.org.sg/cme/smj by 02 September 2011. (3) All online submissions will receive an automatic email acknowledgment. (4) Passing mark is 60%. No mark will be deducted for incorrect answers. (5) The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council.

Deadline for submission: (July 2011 SMJ 3B CME programme): 12 noon, 26 August 2011.