

MANAGEMENT OF SCHIZOPHRENIA IN ADULTS

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A. Epidemiology, Clinical Diagnosis & General Principles of Management

Schizophrenia is a serious brain disease that alters an individual's perception, thought, affect and behaviour. In a systematic review, the incidence rate was noted to be 15.2 per 100,000 (range of 7.7 to 43.0 per 100,000) and higher in males, urban and migrant population.

Although there is effective biopsychosocial treatment available, substantial number of people with schizophrenia remains

undiagnosed and untreated. Duration of untreated psychosis (DUP) is described as the time period from onset of the first psychiatric symptom to initiation of antipsychotic treatment. In the National Mental Health Registry Report, the mean and median DUP was 28.7 months and 12 months respectively. Males had shorter DUP compared to female.

People who develop symptoms of schizophrenia should be diagnosed and treated early. The diagnostic criteria of schizophrenia, based on International Classification of Diseases-10 (ICD-10), are shown in **Table 1**.

Table 1: Diagnostic Criteria of Schizophrenia

<ul style="list-style-type: none"> • Distortions of thinking and perception • Inappropriate or blunted affects • Clear consciousness and intellectual capacity maintained • Certain cognitive deficits may evolve over time 	<ul style="list-style-type: none"> • The most important psychopathological phenomena include: <ul style="list-style-type: none"> ○ thought echo ○ thought insertion or withdrawal ○ thought broadcasting ○ delusional perception and delusions of control ○ influence or passivity ○ third person hallucination ○ negative symptoms
<p>The course of schizophrenic disorders can be either continuous, or episodic with progressive or stable deficit, or there can be one or more episodes with complete or incomplete remission. The following should be excluded:</p> <ul style="list-style-type: none"> • bipolar disorder • drug intoxication or withdrawal • overt brain disease 	

The management of schizophrenia should be a comprehensive package that **includes individually-tailored medication, and appropriate psychosocial and service level interventions**. This is illustrated in **Algorithm 1**. It may also be divided into acute phase, relapse prevention and stable phase. In the acute phase, positive symptoms (hallucinations, delusions and behavioural disturbances) will surface. With adequate treatment, the symptoms will disappear in most cases. However, negative symptoms (affective flattening, avolition and anhedonia) may persist. Although there are many patterns to the course of illness following this acute phase, majority of cases (75%) will have a chronic disease that causes some degree of disability. The associated deterioration may stop after ten years where cases may become stable with sign of improvement.

In 1996, integrated care of schizophrenia in primary health care services was implemented in Malaysia which includes mental health promotion, follow-up of stable cases, early detection and treatment, and psychosocial rehabilitation.

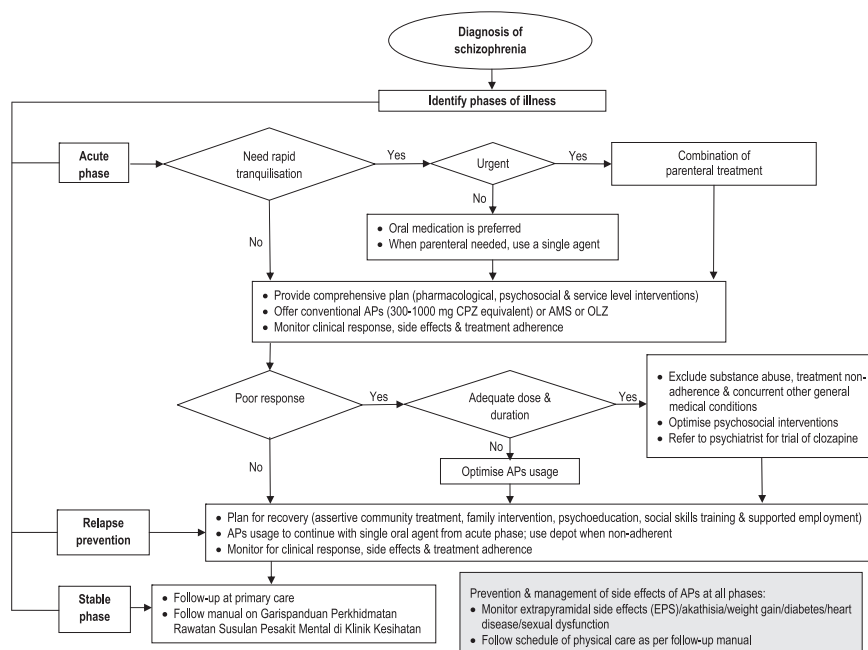
B. Pharmacological Treatment

Antipsychotics (APs) are the mainstay of pharmacological treatment in schizophrenia. Conventional APs should be used as a first option; most commonly used are haloperidol, perphenazine or sulpiride. As options, atypical APs (AAPs) such as amisulpride (AMS) or olanzapine (OLZ) may also be considered (refer to **Algorithm 2** and **Table 3**). Those taking AAPs should be monitored closely for emergence of metabolic syndrome.

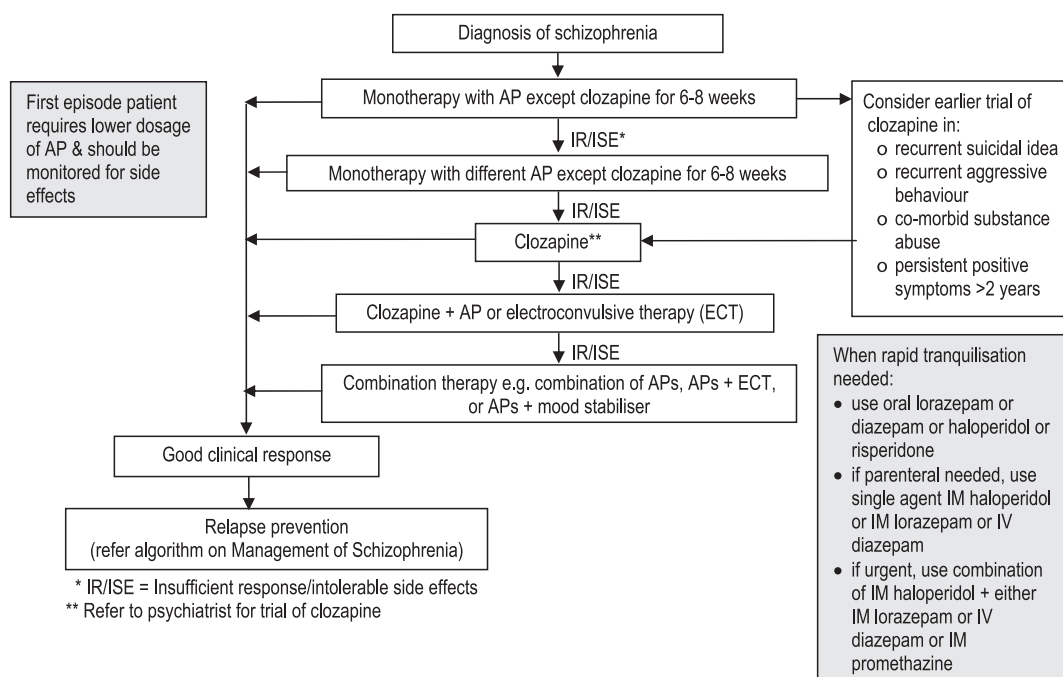
C. Psychosocial Intervention

Psychosocial interventions aim to improve the individual's ability to handle stressful life events, increase adherence to medication, help with illness self-management, promote better communication and coping skills, enhance quality of life and promote recovery and reintegration. Effective psychosocial interventions for schizophrenia include family intervention, psychoeducation, social skills training and cognitive remediation therapy.

Algorithm 1: Management of Schizophrenia



Algorithm 2: Medications of Schizophrenia



D. Service Level Intervention

Service Level Intervention is important as Malaysia is currently in the process of developing more comprehensive hospital-based community psychiatric services and mental health services at the primary care level. It is essential that the following services be considered for every person with schizophrenia i.e. community

mental health team to prevent relapse and readmissions, assertive community treatment for more difficult cases, supported employment for all who want to work and crisis intervention and home treatment as alternative to acute inpatient care.

Criteria for referral and admission are shown in **Table 2** below:-

Table 2: Criteria for referral and admission

Criteria for Early Referral to Specialist Care	Criteria for Hospitalisation
<ul style="list-style-type: none"> o Prodromal or attenuated symptoms o Unclear diagnosis o Treatment adherence issues o Poor response to treatment o Potential violent behaviour to self or others o Drug-related complications o Plan for psychosocial rehabilitation o o-morbid substance abuse o Special group such as pregnancy, paediatric and geriatric age 	<ul style="list-style-type: none"> o Risk of harm/neglect to self or others o Deterioration in psychosocial functioning o Serious/life-threatening drug reactions

Table 3: Suggested AP Dosages and Adverse Effects

Drug	Starting Dose	Target Dose or Range	Antipsychotic Schedule	Side Effects
Amisulpride (Solian)	50 mg/day	50-300 mg for negative symptoms, 400-800 mg for positive symptoms	Once daily. If more than 400 mg, twice daily	Insomnia, anxiety, agitation, somnolence, nausea, dry mouth, acute dystonia, galactorrhoea
Aripiprazole (Abilify) <i>Generic available</i>	10-15 mg/day	10-30 mg/day	Once daily	Agitation, constipation, EPS, insomnia, nausea, somnolence
Olanzapine (Zyprexa)	5-10 mg/day	10-20 mg/day	Once daily	Constipation, dizziness, dry mouth, impaired glucose tolerance (IGT), hyperlipidaemia, increased appetite, sedation, weight gain
Quetiapine (Seroquel)	50 mg/day	300-800 mg/day	Twice daily	Dry mouth, IGT, headache, hyperlipidaemia, increased appetite and weight, orthostatic hypotension, sedation
Paliperidone (Invega)	3 mg/day	6-12 mg/day	Once in the morning	EPS, IGT, galactorrhoea, hyperlipidaemia, menstrual irregularity, orthostatic hypotension, prolactin elevation, sedation, sexual dysfunction, tardive dyskinesia, weight gain
Risperidone (Risperdal) <i>Generic available</i>	1-2 mg/day	2-6 mg/day	Once daily	
Risperidone microspheres long-acting injection (Consta)	25 mg/2 weeks	25-50 mg every 2 weeks	Once every 2 weeks	
Clozapine (Clozaril) <i>Generic available</i>	12.5 mg/day	300-900 mg/day (serum level for doses >600 mg/day)	Twice daily	Agranulocytosis, excess salivation, fever, IGT, hyperlipidaemia, increased appetite, myocarditis, orthostatic hypotension, sedation, seizures, tachycardia, weight gain
Chlorpromazine (CPZ)	50-100 mg/day	300-1000 mg/day	3 times daily	Constipation, dry mouth, EPS, orthostatic hypotension, photosensitivity, sedation, tachycardia, tardive dyskinesia
Perphenazine	4-8 mg/day	16-64 mg/day	3 times daily	
Fluphenazine depot (Modectate) <i>Generic available</i>	12.5-25 mg IM/ 1-3 weeks	6.25-50 mg IM every 2-4 weeks	Every 1-3 weeks	
Flupenthixol decanoate (Fluanxol)	10-20 mg IM/ 1-3 weeks	10-40 mg IM every 2-4 weeks	Every 1-3 weeks	
Haloperidol	2-5 mg/day	2-20 mg/day	1-3 times daily	
Sulpiride <i>Generic available</i>	200-400 mg daily	400-800 mg daily	Twice daily	
Zuclopenthixol acetate (Acuphase)	50-100 mg IM/ 2-3 days	50-200 mg/3 days	–	
Zuclopenthixol decanoate (Clopixol depot)	100-200 mg IM/ 1-3 weeks	100-400 mg/ 1-3 weeks	Every 1-3 weeks	

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Details of the evidence supporting these recommendations can be found in the CPG on Management of Schizophrenia in Adults, available on the following websites: Ministry of Health Malaysia: <http://www.moh.gov.my> and Academy of Medicine: <http://www.acadmed.org.my>. Corresponding organisation: CPG Secretariat, Health Technology Assessment Section, Medical Development Division, Ministry of Health Malaysia & contactable at htmalaysia@moh.gov.my