

Schizophrenia

Major Depression

Chronic Disease Management Programme

2009

Handbook for
Healthcare Professionals

Includes instructions on use of Medisave for CDMP

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CHAPTER ONE:

THE CHRONIC DISEASE MANAGEMENT PROGRAMME (CDMP)

1 Overview- Update on the use of Medisave for CDMP

- 1.1 “Disease management is a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant.” (Definition from Disease Management Association of America).
- 1.2 The Medisave for Chronic Disease Management Programme was introduced at the end of 2006 and involves: (a) evidence-based structured Disease Management Programmes (DMPs) and (b) option for patients to draw on their Medisave to help reduce out-of-pocket payments for outpatient treatment required in the management of their chronic diseases.
- 1.3 On 1 Oct 2006, CDMP was implemented for Diabetes. This was extended to three additional diseases in Jan 2007, namely Hypertension, Lipid Disorders and Stroke. Asthma and Chronic Obstructive Pulmonary Disease (COPD) were added in Apr 2008.
- 1.4 Starting with just over 7000 patients in Oct 2006, the CDMP has grown and as of Dec 2008, there are about 98,000 patients in this Programme, with an annual Medisave withdrawal of about S\$18 million in 2008.
- 1.5 Submission of clinical data is an essential component of the Programme and participating clinics are required to monitor the quality of care that patients receive and submit clinical data to the Ministry of Health (MOH).
- 1.6 To facilitate quality improvement, the clinical data submitted had been routinely fed back to the clinic as the online CDMP outcome reports via the Mediclaim system from the first quarter of 2008 onwards.

2 Inclusion of Schizophrenia and Major Depression into the CDMP

- 2.1 From Oct 2009, Schizophrenia and Major Depression will be included into the CDMP. This is expected to bring about better health outcomes for patients who will have better control of their conditions with close supervision from their doctors.

- 2.2 It is recognised that the treatment of chronic diseases is costly when administered collectively over a long period. However, this Programme will help reduce out-of-pocket payments and also reduce the barriers for patients to seek medical treatment.
- 2.3 With the implementation of the CDMP, GPs will be able to take on a greater role in the management of chronic diseases of their patients.
- 2.4 With effect from Oct 2009, the use of Medisave for CDMP will apply to the eight conditions listed below:
- a) Diabetes Mellitus (DM)
 - b) Hypertension (HPT)
 - c) Lipid Disorders
 - d) Stroke
 - e) Asthma
 - f) COPD
 - g) Schizophrenia**
 - h) Major Depression**
- 2.5 This Handbook presents the essential components of the use of Medisave for CDMP for Schizophrenia and Major Depression. It covers the following details:

Chapter Two	<ul style="list-style-type: none"> • The clinical aspects of the Programme, including how to enrol patients into the appropriate DMP • The essential components of the DMPs • Clinical guidelines for referrals between primary and tertiary care
Chapter Three	<ul style="list-style-type: none"> • The data submission requirements for participation in the Programme • The plan for clinical quality improvement
Chapter Four	<ul style="list-style-type: none"> • The registration process for clinics and doctors who have yet to participate and are interested in the Programme • Guidelines for use of Medisave for chronic disease outpatient treatment
Chapter Five	<ul style="list-style-type: none"> • User Manual for e-Service Clinical Data Submission • Guide on how to use the Clinical Indicators Data Collection (CIDC) e-Service for the submission of data to MOH
Chapter Six	<ul style="list-style-type: none"> • Frequently asked questions for healthcare professionals

CHAPTER TWO: THE CLINICAL PROGRAMME

1 Enrolling Patients in the Shared Care Programme

- 1.1 CDMP clinics enrolled in Shared Care Programmes or GP partnership programme with an RH must provide the essential care components for the treatment of schizophrenia and major depression as set out in the Guidebooks (Annex 2B-1 and 2B-2).
- 1.2 Existing psychiatric patients in IMH or other RHs must be assessed and recommended by psychiatrists to be suitable for follow-up in the community by GP clinics or polyclinics, which are participating in Shared Care or GP Partnership Programmes.
- 1.3 For new diagnosis of possible schizophrenia or other types of psychosis, when in doubt, it is advisable to consult or refer to a psychiatrist for confirmation as these diagnoses carry long term implication and sometimes stigma.
- 1.4 Patients suffering from schizophrenia and/or major depression who are already enrolled under the existing DMPs (i.e. Diabetes Mellitus, Hypertension, Lipid Disorders, Stroke, Asthma or COPD) should be followed-up by their regular psychiatrist unless the psychiatrist assesses they are suitable for follow-up in the community. (For enrolment of patients with multiple chronic diseases, please refer to Annex 2-A, page 8).
- 1.5 Patients who are assessed to be suitable for community follow-up will be able to use Medisave to pay for management of all these eight chronic diseases (existing rules and regulations for Medisave claims apply). Clinical outcomes will be tracked for all the DMPs that the patient had been enrolled into.

2 Clinical Care Guidelines

- 2.1 These clinical guidelines for Schizophrenia and Major Depression have been recommended by the Clinical Advisory Committee appointed by MOH. These care components are recommended based on current available medical evidence. The clinical guidelines for Schizophrenia and Major Depression can be found at Annex 2-B1 and 2-B2 respectively.

2.2 Some clinics have found it administratively easier to package their services for their patients. Packages should contain the care components detailed in the DMPs. Additional components, if any, can only be offered as add-ons.

2.3 Figure 2.1 to 2.2 shows the treatment algorithm for the treatment of Schizophrenia and Major Depression.

Figure 2.1 Treatment Algorithm for Schizophrenia

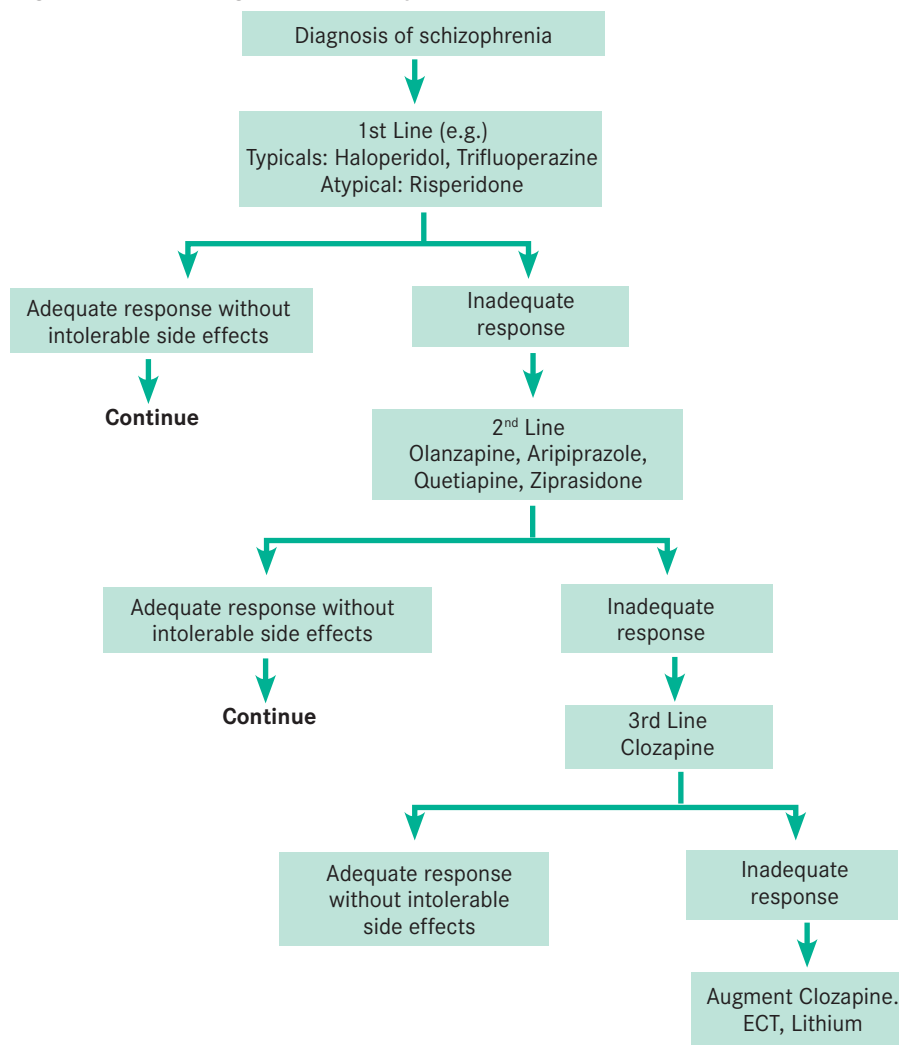
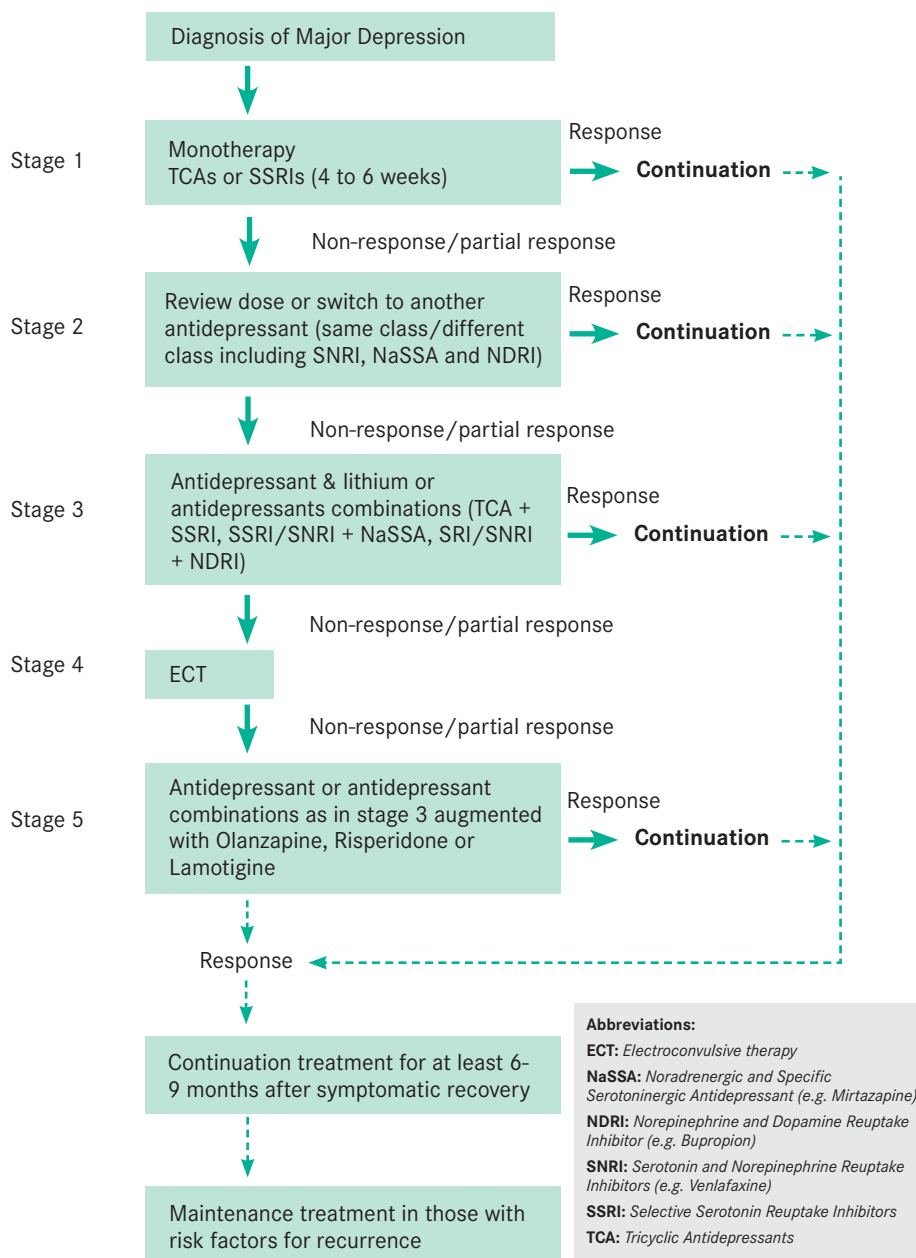


Figure 2.2: Treatment Algorithm for Non-Psychotic/Unipolar Major Depression



3 Patient Education and Monitoring

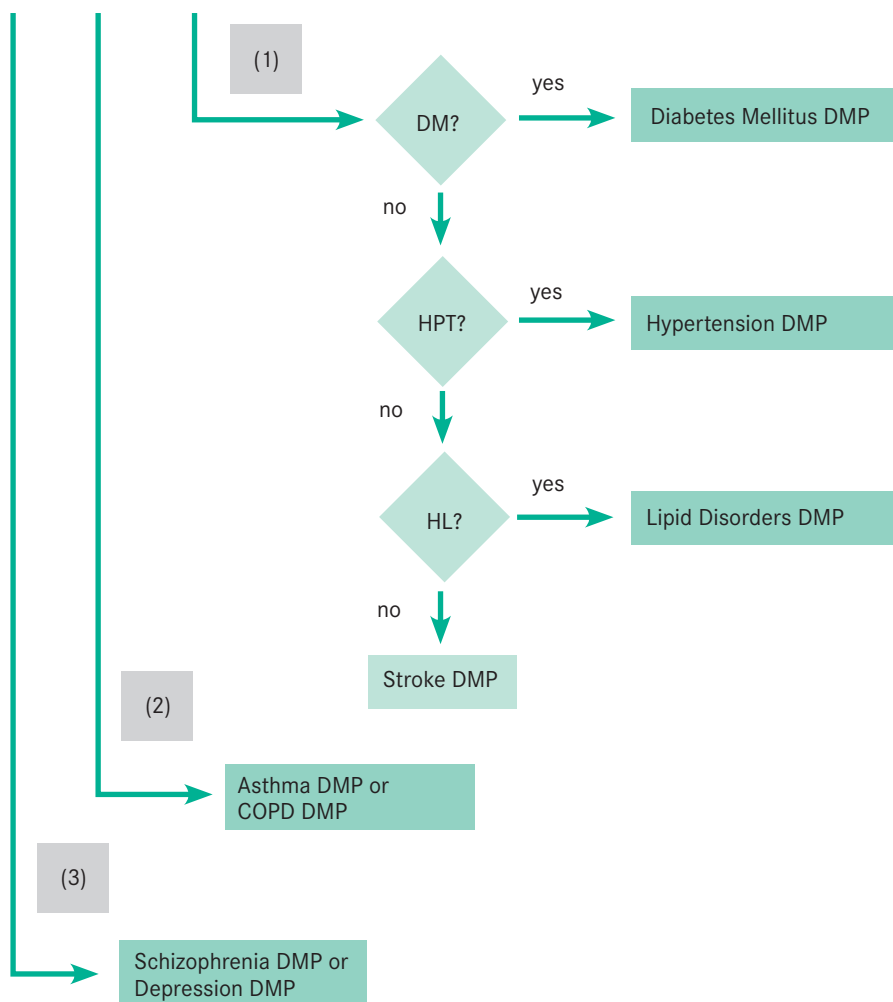
- 3.1 As part of the national effort under this Programme, the Health Promotion Board has prepared Patient Education Booklets for Schizophrenia and Major Depression.
- 3.2 These materials will be distributed to all CDMP clinics for the doctors to use in patient education. Specialist Outpatient Clinics (SOCs) and Polyclinics will also use the same materials to facilitate integration of care across the various care settings.
- 3.3 It will be useful to explain the contents of the patient education booklet to the patient (or parents and caregiver) as this will help enhance the doctor-patient relationship.

4 Guidelines for Continuing Care

- 4.1 To facilitate integration of care across the various levels so that patients are able to continue and receive the appropriate management of their conditions, MOH has developed the following guidelines:
 - a) **Referral from Specialist to Primary Care**
Suitable patients, who can be managed in the community by their family physician rather than in a tertiary setting, must be assessed by specialist to be stable, non-violent, non-suicidal and fit for community care.
 - b) **Referral from Primary Care to Specialist**
Family physician should refer for specialist's review, patients who are at risk and may benefit from specialist's opinion, for example, those who are unstable, violent, suicidal, deteriorating or showing signs of relapse.

Enrolling patients with multiple chronic diseases

Patient with multiple chronic diseases may be enrolled into (1) **and/or** (2) **and/or** (3)



Schizophrenia Disease Management Programme

1 Introduction

- 1.1 Schizophrenia is a major psychiatric disorder with a chronic and often disabling clinical course. It has an estimated lifetime prevalence of seven per thousand of the adult population worldwide. This disorder is characterised by a multiplicity of symptoms affecting the most fundamental human attributes: cognition, emotion and perception. The early age of onset, impairments in intellectual and psychosocial aspects of the individual's life as well as associated stigma, often brings to its victims and families significant emotional and financial distress.

2 Symptomatology and Presentation

- 2.1 Each patient with the disorder will have a unique combination of symptoms and experiences and may present at various phases of their illness. Some might experience a prodromal phase where frank psychotic symptoms had not yet occurred. The prodromal phase is frequently characterised by non-specific symptoms such as depressed mood, anxiety, sleep disturbances, attenuated psychotic symptoms, social withdrawal and deterioration in academic or occupational functioning.
- 2.2 There are 4 main categories of symptoms in schizophrenia: positive, negative, disorganized and cognitive symptoms. Various combinations of these symptoms may occur.
- 2.3 Positive symptoms are those that appear to reflect an excess or distortion of normal functions. Characteristic positive symptoms are delusions and hallucinations. Delusions are fixed, false and firmly held beliefs that are out of the socio-cultural and religious context of the affected individual. Usually, the patient would misinterpret sounds and actions of others as relating to themselves. They may also report unusual experiences or fear that their actions are being monitored and their lives might be in danger. Hallucinations are perceptions in the absence of a stimulus, in a conscious and awake person. Often hallucinations in schizophrenia occur in the auditory modality and patients would complain of voices talking to them. They may also be noted to mumble, talk, laugh or gesticulate to themselves. Hallucinations could also occur in other sensory modalities such as vision, smell, touch and taste. If these are the

predominant hallucinations, care must be exercise to exclude an organic cause for the psychosis.

- 2.4 Negative symptoms are those that appear to reflect a diminution or loss of normal functions. These often persist in the lives of people with schizophrenia, even after resolution of positive symptoms, and are difficult to evaluate because they are not grossly abnormal as positive symptoms and may be caused by other factors such as antipsychotic medications. Typical negative symptoms are alogia (limited speech with consequent difficulty in maintaining a conversation), anhedonia (lack of pleasure or interest in life), avolition (lack of initiation, drive and energy), asociality (social withdrawal) and affect flattening (difficulty in expressing emotions). Patients seldom complain about negative symptoms, but their caregivers would report about their “laziness”.
- 2.5 Disorganised symptoms include disturbances in thinking, speech and behaviour. They may talk irrelevantly, answer off the point or manifest bizarre behaviours. Cognitive symptoms include impairments in attention, concentration, memory and executive functioning. Cognitive symptoms have a significant impact on their social, occupational and academic functioning.
- 2.6 Schizophrenia is associated with significant psychiatric co-morbidities such as depression, anxiety disorders, post-traumatic stress disorders and substance use disorders. These co-morbidities could affect the clinical outcome and delay improvement. Occasionally, the patient with schizophrenia may first present with features of depression or anxiety rather than complain of hearing voices. Therefore, the clinician should screen for the presence of these disorders during the clinical interviews.
- 2.7 In the assessment of the patient, it is important to obtain corroborative history from family, friends or caregivers. This is especially so in patients who are not forthcoming during the clinical interviews or downplay their symptoms. During the interview, it is also important to assess the social support system and the patient’s self-care, as it will influence subsequent management plans.
- 2.8 Other important aspects of the interview include risk assessment and physical health. In the risk assessment, clinicians are specifically examining the patient for risk of harm to self and others. Patients suffering from schizophrenia have an increased risk of suicide. As a result of neglect and poor hygiene, they may become malnourished or suffer the physical consequences of it.

3 Diagnosis and Differentials

3.1 In the diagnosis of schizophrenia, there are 2 widely used criteria internationally. The International Classification of Diseases (ICD) endorsed by the World Health Organisation, and the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association.

3.2 Diagnostic guidelines for DSM-IV-TR

A. Characteristic symptoms: Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):

- i) Delusions
- ii) Hallucinations
- iii) Disorganized speech (e.g., frequent derailment or incoherence)
- iv) Grossly disorganized or catatonic behaviour
- v) Negative symptoms, i.e., affective flattening, alogia, or avolition

Note: Only one Criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person's behaviour or thoughts, or two or more voices conversing with each other.

B. Social/occupational dysfunction: For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).

C. Duration: Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

D. Schizoaffective and Mood Disorder exclusion: Schizoaffective Disorder and Mood Disorder With Psychotic Features have been ruled out because either (1) no Major Depressive, Manic, or Mixed Episodes have occurred concurrently with the active-phase symptoms; or (2) if mood episodes have occurred during active-phase symptoms, their total duration has been brief relative to the duration of the active and residual periods.

E. Substance/general medical condition exclusion: The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

F. Relationship to a Pervasive Developmental Disorder: If there is a history of Autistic Disorder or another Pervasive Developmental Disorder, the additional diagnosis of Schizophrenia is made only if prominent delusions or hallucinations are also present for at least a month (or less if successfully treated).

3.3 Diagnostic Guidelines for ICD-10

3.3.1 The normal requirement for a diagnosis of schizophrenia is that a minimum of one very clear symptom (and usually two or more if less clear-cut) belonging to any one of the groups listed as (a) to (d) below, or symptoms from at least two of the groups referred to as (e) to (h), should have been clearly present for most of the time during a period of 1 month or more. Conditions meeting such symptomatic requirements but of duration less than 1 month (whether treated or not) should be diagnosed in the first instance as acute schizophrenia-like psychotic disorder and are classified as schizophrenia if the symptoms persist for longer periods.

3.3.2 Although no strictly pathognomonic symptoms can be identified, for practical purposes it is useful to divide the above symptoms into groups that have special importance for the diagnosis and often occur together, such as:

- a) thought echo, thought insertion or withdrawal, and thought broadcasting;
- b) delusions of control, influence, or passivity, clearly referred to body or limb movements or specific thoughts, actions, or sensations; delusional perception;
- c) hallucinatory voices giving a running commentary on the patient's behaviour, or discussing the patient among themselves, or other types of hallucinatory voices coming from some part of the body;
- d) persistent delusions of other kinds that are culturally inappropriate and completely impossible, such as religious or political identity, or superhuman powers and abilities (e.g. being able to control the weather, or being in communication with aliens from another world);
- e) persistent hallucinations in any modality, when accompanied either by fleeting or half-formed delusions without clear affective content, or by persistent over-valued ideas, or when occurring every day for weeks or months on end;

- f) breaks or interpolations in the train of thought, resulting in incoherence or irrelevant speech, or neologisms;
- g) catatonic behaviour, such as excitement, posturing, or waxy flexibility, negativism, mutism, and stupor;
- h) “negative” symptoms such as marked apathy, paucity of speech, and blunting or incongruity of emotional responses, usually resulting in social withdrawal and lowering of social performance; it must be clear that these are not due to depression or to neuroleptic medication;
- i) a significant and consistent change in the overall quality of some aspects of personal behaviour, manifest as loss of interest, aimlessness, idleness, a self-absorbed attitude, and social withdrawal.

3.4 In making a diagnosis of schizophrenia, it is important to exclude certain differentials. Differential diagnoses can be categorised into functional psychiatric disorders and organic brain disorders.

3.5 Possible psychiatric differential diagnoses include schizoaffective disorder, bipolar disorder and delusional disorder. Some examples of organic brain disorders that may present with psychotic symptoms include delirium, drug-induced states in either intoxication or withdrawal phases, alcoholic hallucinosis, and intracranial pathologies such as meningo-encephalitis, epilepsy and brain tumours.

3.6 Therefore, in the evaluation of the patient, the following steps would be pertinent:

- a) A complete history and mental state assessment;
- b) A thorough physical examination to exclude some of the differential diagnoses;
- c) Laboratory tests such as full blood count, renal and liver panel, thyroid function tests and other relevant investigations may be useful in the initial evaluation;
- d) Neuroimaging such as CT or MRI scan of the brain may be necessary if neurological signs are present or intracranial causes are suspected

4 Treatment

- 4.1 In the holistic management of patients with schizophrenia, it is essential to consider bio-psycho-social aspects of care. Often, it is useful to enlist the assistance of a multidisciplinary team that includes a case manager, social worker, psychologist and occupational therapist in the assessment and planning of care in the early phase of illness, or when psychosocial aspects of care becomes predominant.

Biological interventions

4.2 Antipsychotic medications

- 4.2.1 Antipsychotic medications should be used as the first-line treatment for psychotic symptoms. Antipsychotic medications are divided into typical and atypical based on their propensity to cause extrapyramidal side effects (EPSE). Typical antipsychotics have been convincingly shown in numerous trials to be more effective than placebo in the treatment of positive symptoms, but have a greater propensity to cause EPSE. Atypical antipsychotics are equally efficacious in controlling psychotic symptoms, have a lower propensity to cause EPSE, but are generally more costly. Antipsychotic medications may come in various formulations such as tablets, capsules, oro-dispersible, liquid and injections. (refer to Table A.2 for a list of common antipsychotics and their dosage range)
- 4.2.2 In general, polypharmacy is avoided and antipsychotic medications are started at low doses and titrated upwards in accordance with clinical response and tolerability. It may take up to 2 weeks of antipsychotic medication at therapeutic dosage before clinical response begins. The patient may experience a few outcomes after initiation of medication; (a) adequate response and tolerable side effects, (b) adequate response but intolerable side effects, (c) inadequate response but tolerable side effects, (d) inadequate response and intolerable side effects and (e) refusal to adhere to medication (refer to Figure 2.1 (Page 6) for treatment algorithm).
- 4.2.3 In patients with adequate response but intolerable EPSE, anticholinergic medications such as benhexol and benztropine may be prescribed. Usage of anticholinergic medications should be reviewed regularly and balanced against side effects such as dry mouth, constipation, confusion and cognitive impairment. If side effects are preventing upward titration of antipsychotic dosage, a switch in antipsychotic medication may be preferred.

4.2.4 In situations where patients prefer, or adherence to oral medications is doubtful, depot antipsychotic medications can be started. Currently, there are 3 main types of depot typical antipsychotic medications; fluphenazine, flupenthixol and zuclopenthixol and 1 available depot atypical medication, risperidone. In practice, a test dose of depot medication of much lower dose is given first and the patient monitored for up to a week; before a further top up dose of the depot medication is given. Oral antipsychotic medications will be tapered down gradually once the dose of depot antipsychotic medication is stabilised.

4.2.5 Clozapine is indicated for patients with treatment resistant schizophrenia, defined as inadequate response to 2 trials of antipsychotics for 6 weeks at therapeutic dosages. Clozapine is reserved as third-line because of the need for regular haematological monitoring once started to prevent agranulocytosis. Therefore, patients on clozapine should be reviewed by psychiatrists.

4.3 Adjunct medications

4.3.1 Antidepressants such as selective serotonin reuptake inhibitors (SSRI), tricyclic antidepressants (TCA) are prescribed to manage co-morbid psychiatric illnesses such as depression and anxiety disorders. Mood stabilisers such as sodium valproate and lithium are sometimes used as adjunctive treatments when patients have prominent mood features or are treatment resistant. Short-term benzodiazepines may be useful in management of agitation or disruptive behaviours. However, there should be due consideration of potential drug-drug interactions before prescribing multiple psychotropic medications.

4.4 Electroconvulsive therapy

4.4.1 Electroconvulsive therapy (ECT) is effective in catatonic patients, and is sometimes used in treatment resistant schizophrenia.

Psychosocial interventions

4.5 Combination of pharmacotherapy and psychosocial interventions has synergistic effects and can improve the course of schizophrenia. Interventions include basic psychoeducation and counselling that most healthcare professionals can provide, to more complex and specialised interventions such as individual, group or family psychotherapy and vocational rehabilitation.

- 4.6 Psychoeducation includes educating the patients and their caregivers about the illness, its course, prognosis, as well as treatment. Side effects of medications, costs and treatment options should be discussed where appropriate.

Follow up

- 4.7 This is one of the most important aspects of care in schizophrenia. During the follow up appointments, the clinician has to evaluate various aspects of the management. Broadly, they may be categorised as symptoms, medications and physical health (refer to Table A.3).
- 4.8 Efficacy of treatment should be assessed at each review. This includes changes in symptoms and behaviours, either improvement or deterioration. Early signs of relapse should be sought and can be managed as an outpatient by adjustment of medications. Patients have their own unique relapse signature. The patient or caregiver might be able to describe early warning signs such as increasing intensity or frequency of hallucinations, mood changes or sleep disturbances. During this segment, clinicians should also evaluate for co-morbid psychiatric disorders such as depression.
- 4.9 Under the category of medications, adherence and side effects should be evaluated. Adherence can be evaluated by asking the patient or caregiver directly, or by asking them to bring their existing stock of medications to check for surpluses. Checking for treatment adherence is necessary as patients frequently reduce or stop their medications on their own for various reasons ranging from a lack of insight into the illness, to complacency once they feel improved. Medication side effects are common reasons why patients do not adhere to their prescription. Therefore, it is important to enquire and examine for the presence of side effects such as EPSE, excessive sedation, sexual dysfunction, and amenorrhoea in females (refer to table 3).
- 4.10 Patients with schizophrenia are at risk of metabolic syndrome and have higher mortality rates from cardiovascular diseases. Antipsychotic medications have been associated with hypertriglyceridemia, hypercholesterolemia, hyperglycemia and weight gain. Patients should also be encouraged to lead a healthy and active lifestyle to modify their cardiovascular risk profile. If necessary, lipid-lowering or oral hypoglycaemic agents should be prescribed to manage these disorders as laid out in the Ministry of Health's clinical practice guidelines

5 When to refer

- 5.1 Patients with the following indications should be referred to a psychiatrist for further assessment;
- a) Initial assessment, diagnosis and initiation of treatment, when in doubt
 - b) Risk of violence to self or others
 - c) Unexpected changes in symptomatology
 - d) Drug-related complications
 - e) Treatment resistance
 - f) Switching to clozapine
 - g) Forensic or medico-legal issues
- 5.2 Special groups: pregnancy, paediatric or geriatric age group
- 5.3 If urgent, the patient can be referred to any hospital's emergency department for evaluation. The Institute of Mental Health also has a 24-hour Emergency Room that provides psychiatric consultations.

6 Clinical Indicators

- 6.1 Participating medical institutions must monitor the quality of care that patients receive and submit the following clinical indicators via electronic channels to MOH:
- a) Clinical Global Impression (CGI) Scale
 - b) Consultation for CDMP Mental Health
 - c) Blood test for fasting lipid (only for patients on atypical antipsychotic medication)
 - d) Blood test for fasting glucose (only for patients on atypical antipsychotic medication)
- 6.2 The Clinical Global Impression (CGI) Scale is a simple, easy to administer 2-item scale (each item has 7 points) scale to indicate the severity and improvement of the mental condition. It is chosen as it can be applied to reflect severity and improvement in other mental conditions. The scoring details are further described in Annex 4-A
- 6.3 As patient compliance to follow-up is an important aspect of care for patients suffering from mental illness, the Consultation for CDMP Mental Health (at least twice per year) is a key care compliance indicator for the Programme.

6.4 For schizophrenia patients who are prescribed atypical antipsychotic medications, a blood test for fasting lipid and fasting glucose should be performed at least once yearly to alert doctors to possible development of metabolic syndrome, a known complication of treatment with atypical antipsychotics.

6.5 Table A.1 summarises the clinical indicators required for patients with schizophrenia.

Table A.1: Clinical Indicators for Schizophrenia patients

	Clinical Indicator	Recommended Frequency	Remarks
1	Clinical Global Impression (CGI) Scale: a. Severity, b. Improvement	At least once yearly	Provider-administered
2	Consultation for CDMP Mental Health	At least twice per year	Provider-administered
3	Blood test for fasting glucose	At least once yearly	Provider-administered; Only for patients on atypical anti-psychotics
4	Blood test for fasting lipid	At least once yearly	Provider-administered; Only for patients on atypical anti-psychotics

7 Resources

- DSM IV-TR Diagnostic criteria for schizophrenia
<http://www.psychiatryonline.com/content.aspx?aID=8939#8939>
- ICD 10
<http://apps.who.int/classifications/apps/icd/icd10online/>

Table A.2. Initial Dosing and Clinical Titration of Commonly Used Antipsychotic Medication in Schizophrenia

Antipsychotic	Usual Dosage Range (mg)	Common Side Effects	Remarks
Typicals			
1st Line Anti-psychotics			
Haloperidol	5–20	1. Extrapyramidal side effects e.g. dystonia, akathisia, parkinsonism	Monitor for EPSE
Chlorpromazine	50–400	2. Tardive dyskinesia	
Trifluoperazine	10–20	3. Hyperprolactinemia (amenorrhoea, galactorrhoea and breast enlargement in females, and impotence and gynaecomastia in males)	
Sulpiride	400–800	4. Antiadrenergic side effects e.g. postural hypotension, delayed ejaculation 5. Photosensitivity in chlorpromazine users	
Atypicals			
Risperidone	2–6	Rhinorrhoea, blocked nose and at higher dosages (more than 6 mg/day) the side effect profile is similar to typical antipsychotic medications with increased EPSE and hyperprolactinemia	Increased EPSE without improved efficacy above 6 mg/day
Fluphenazine	12.5–75mg/2–6wk		Depot
Flupenthixol	20–40mg/2–4wk		Depot
Zuclopenthixol	200–400mg/1–4wk		Depot
Risperidone	25–37.5mg/2wk		Long-acting Injection, Depot
Depot Injections			
Fluphenazine	12.5–75mg/2–6wk		Typical
Flupenthixol	20–40mg/2–4wk		Typical
Zuclopenthixol	200–400mg/2–4wk		Typical
Risperidone	25–37.5mg/2wk		Long-acting Atypical (Consta) injection
2nd Line Anti-psychotics			
Amisulpride	50 – 800		
Olanzapine	10 – 25	Sedation, weight gain, postural hypotension and anticholinergic side effects	
Quetiapine	300 – 850	Sedation, postural hypotension, anticholinergic side effects	Safety and benefit of high doses (>800 mg/day) not yet established

Antipsychotic	Usual Dosage Range (mg)	Common Side Effects	Remarks
Aripiprazole	10 – 30	Headaches, insomnia and anxiety	72 hour half-life; no evidence of improved efficacy > 20 mg/day
Paliperidone	3 – 12		
3rd Line Anti-psychotics – Only for treatment resistant schizophrenia			
Clozapine ¹	200 – 500	Sedation, weight gain, hypersalivation, postural hypotension	Need to regularly monitor full blood counts

Uncommon side effects of antipsychotic medications

1. Neuroleptic malignant syndrome
2. Lowered seizure threshold
3. Transaminitis

Table A.3. Monitoring protocol for patients on atypical anti-psychotics for metabolic syndrome

The tests for the indicated monitoring parameters should be carried out upon commencement of pharmacotherapy, and thereafter at the following recommended frequencies.

Monitoring Parameters	Initial Period	Long-Term	
	After initial 12-24 weeks of treatment	Quarterly	Every Year
Weight (BMI)		X	X
Blood Pressure	X		X
Fasting Plasma Glucose	X		X
Fasting Lipid Profile	X		X

¹To be prescribed only by psychiatrist in treatment resistant schizophrenia.

MAJOR DEPRESSION MANAGEMENT PROGRAMME

1 Introduction

- 1.1 A low mood or state of dejection that does not affect functioning is often colloquially referred to as depression. Clinical depression is very different from the everyday meaning of “being depressed”. Clinical depression is generally acknowledged to be more serious than normal depressed feelings and affects one's ability to function in many aspects of life. Depression from this point on in this guidebook would refer to Major Depression.
- 1.2 Mood and anxiety disorders are the psychiatric problems most commonly encountered in primary healthcare settings. Studies have estimated that Major Depression occurs in 2%-4% of persons in the community, in 5%-10% of primary care patients, and 10%-14% of medical inpatients. This would imply that Major Depression is a relatively common disorder and it would be significant to be able to address and care for these patients in a primary care setting.
- 1.3 This guide focuses on Major Depressive Disorder. It aims to educate and is meant not as a replacement for clinical practice guidelines but as a quick reference for the busy family practitioner to help him/her manage depression in the community.

2 Symptomatology

- 2.1 Depression is common, often missed and not hard to diagnose if you look for it. Depression can be severe, recurrent and potentially costly in both health and economic terms if left untreated. However, depression is highly treatable once diagnosed.
- 2.2 Symptoms of major depression manifest as both psychological and physical symptoms.
 - 2.2.1 Psychological symptoms include:
 - a) depressed mood
 - b) decreased interest, poor concentration
 - c) ideas of guilt and worthlessness
 - d) lowered self-esteem
 - e) suicidal thoughts

2.2.2 Physical symptoms can manifest as

- a) reduced energy and activity
- b) tiredness
- c) insomnia
- d) decreased libido
- e) reduced appetite, weight loss
- f) somatic symptoms
- g) constipation

2.3 Established criteria for Major Depression exist. Clinicians generally employ the diagnostic and statistical manual (DSM) criteria or the International Classification of diseases (ICD) criteria.

2.3.1 DSM IV TR criteria

- A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

Note: Do not include symptoms that are clearly due to a general medical condition, or mood-incongruent delusions or hallucinations.

- i) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). **Note:** In children and adolescents, can be irritable mood.
- ii) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective report or observation made by others)
- iii) significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. **Note:** In children, consider failure to make weight gains.
- iv) insomnia or hypersomnia nearly every day
- v) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feeling of restlessness or being slowed down)
- vi) fatigue or loss of energy nearly every day

- vii) feelings of worthlessness or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)
- viii) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)
- ix) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

B. The symptoms do not meet criteria for a Mixed Episode.

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hypothyroidism).

E. The symptoms are not better accounted for by Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

2.4 Differential Diagnosis

2.4.1 Consider the following even if the patient does not fulfill criteria for major depression: he or she may still be suffering from a dysthymic disorder (a milder but more chronic form of depression), personality disorder (chronic maladaptive perceptions and coping mechanisms), or simply a reaction to stress. Although these conditions are generally less severe than major depression, risk of harm to self or others and functional impairment should still be assessed and managed.

2.4.2 If there was an episode of mania or hypomania in the past, then the diagnosis would be one of Bipolar disorder. This would be treated quite differently and the patient would be best referred to see a psychiatrist

2.4.3 In some cases, there may be an organic condition or a prescription medication that is responsible for the patient's depressed mood. It is important to be aware

of the patient's medical history and find out if they are taking medications such as steroids and beta-blockers, which are known to sometimes cause depression. Hypothyroidism may also be misdiagnosed as a depressive disorder.

3 Assessment and Investigations

- 3.1 A thorough history and mental state examination to establish diagnosis and current stressors should be obtained
- 3.2 Some typical characteristics in the mental state examination of a depressed person are:
 - a) Disheveled appearance
 - b) Miserable expression and lack of animation
 - c) Irritability
 - d) Poor eye contact
 - e) Slowness of speech and movement
 - f) Flat monotonous voice
 - g) Reticence and evasiveness
- 3.3 A physical examination should be done to exclude organic disorders. Investigations such as a thyroid function test should be done where indicated.

4 Treatment

- 4.1 Treatment can be divided into psychological and somatic/pharmacological approaches. Electro-convulsive therapy is generally used in treatment-resistant cases.
- 4.2 Psychological interventions
 - a) Psychoeducation about illness, reducing stigma
 - b) Relaxation Techniques e.g. Progressive Muscular Relaxation
 - c) Therapeutic Listening / Counselling
 - (i) Listen, empathise, reassure & instill hope
 - (ii) Self-help materials (books, tapes, etc.)
 - d) Psychodynamic Therapy
 - e) Cognitive-Behaviour Therapy

These may be generally hard to employ in a GP office setting but it would always be good to be empathic and provide psycho-education as well as empathic listening to the patient.

4.2.1 Cognitive Behaviour Therapy (CBT). CBT is perhaps one of the psychological interventions with the biggest evidence base. CBT is a form of psychological therapy, conceptualized by pioneers such as Aaron Beck and Albert Ellis, which has been in use since the 1950s. It is based on the concept that how we think, feel and act are inter-related. To exemplify, a student who has failed an examination thinks, “I am stupid and useless and will never amount to anything”. This thought makes him feel depressed and dejected. Because he feels this way, he acts by avoiding future examinations, and eventually drops out of school, which reinforces his notion that he is indeed stupid and useless.

4.2.2 The goal of CBT is to break this sort of self-fulfilling prophecy. CBT is particularly applicable in cases of depression, because there often are a lot of automatic negative thoughts that can trigger dysfunctional feelings and actions. It is usually conducted over 8 – 12 sessions, and the patient needs to be able to commit to regular attendance, active participation and homework assignments. The therapist will help the patient to identify their negative thoughts and replace them with more flexible and salutary cognitions. By adopting a more positive way of thinking, the patient will be better equipped, in the long term, to cope with problems in daily life.

4.2.3 Studies suggest that a combination of CBT and medication is the most effective treatment for depression in the long-term.

4.3 Somatic treatments

4.3.1 Antidepressants may be required to treat moderate to severe cases of depression. They are effective and may also have beneficial effects on anxiety symptoms and sleep difficulties. Annex A presents a medication algorithm for major depression.

4.3.2 Selective Serotonin Reuptake Inhibitors (SSRIs) are recognised as first-line medication for the treatment of major depression. They work by increasing the amount of postsynaptic serotonin in the brain. They are generally preferred over tricyclic antidepressants because they are equally effective, but have fewer side effects, and are much less lethal in cases of overdose.

4.3.3 Although all the SSRIs are functionally similar, they are structurally diverse. This is the reason why a patient may respond better to one SSRI than another. Individual SSRIs also have slightly different benefits and effects. For example, fluoxetine has an energizing effect and is good for patients who feel lethargic,

while fluvoxamine is more sedating and is better for patients who have difficulty falling asleep. Escitalopram is favoured for patients who need polypharmacy because it causes few drug-drug interactions, this is useful for patients with other medical conditions.

- 4.3.4 Some patients may have unrealistic expectations of antidepressants, and may quickly become non-compliant when these expectations are not met. In order to prevent this, it is a good idea to inform them that:
- a) It may take two to four weeks before their mood improves palpably
 - b) They may experience side effects, such as initial nervousness, sedation, abdominal discomfort, nausea and sexual dysfunction but these are usually transient even if they occur.
 - c) They should not abruptly stop their medication, because this causes risk of discontinuation syndrome. This may present as fatigue, irritability, worsening of depression, headache, dry mouth, tremor and paraesthesia
- 4.4 Tricyclic Antidepressants (TCAs) are an older class of antidepressants. Compared to SSRIs, they have greater effect on adrenergic, muscarinic, histaminergic and dopaminergic receptors. Although they are as effective as SSRIs, they cause more side effects, such as sedation, dry mouth and urine retention. They have a narrow therapeutic index, and may cause death by cardio- and neurotoxicity in overdose.
- 4.5 In spite of this, TCAs are sometimes very effective for patients who have treatment-resistant depression, neuropathic pain or insomnia. Examples of commonly-used ones are amitriptyline, dothiepin and imipramine.
- 4.6 Other classes of anti-depressants include venlafaxine (Effexor), duloxetine (Cymbalta) and mirtazapine (Remeron), which also target the Noradrenaline system. Mirtazapine and bupropion are less likely to cause sexual dysfunction as one of its side effects and may be helpful for patients who experience this with the other drugs. There is however prominent sedation with mirtazapine as well as weight-gain, which should be explained to the patient so they may watch their diets. These effects are mainly brought about by the anti-histamine properties of this agent. Bupropion should be avoided in patients with history of seizure disorders, bulimia or anorexia. Venlafaxine may be used as a second-line agent in patients who had failed an adequate course of SSRIs and blood pressure should be monitored.
- 4.7 Refer to Appendix B for a full list of drugs and recommended doses

5 Response, remission and duration of treatment

- 5.1 Patients should also be given an adequate course of treatment once the symptoms are in remission, it is generally recommended that the patient be kept on treatment for another 6 months to a year for the first episode. Remember that the dose that gets them well is also the dose that keeps them well and drug doses should not be tapered till the end of the treatment period. Patients with a second episode should be treated for a year to two, and patients with more recurrent episodes or very severe episodes of depression should be put on long-term treatment follow-up
- 5.2 Electroconvulsive Therapy (ECT)
 - 5.2.1 ECT is a treatment that has been in use since the 1940s. It involves passing a brief-pulse current through electrodes placed on the patient's temples, which induces a generalized tonic-clonic seizure. This is done under general anesthesia. Although the exact mechanism by which it works is not known, it is thought that ECT corrects neurotransmitter imbalances that contribute to depression.
 - 5.2.2 ECT is not routinely prescribed for depressed patients. It is reserved for patients who are extremely ill, such as those who are stuporous and refusing all food and drink. It often produces dramatic and speedy improvement. It is also effective in up to 70% of patients whose depression has proved treatment-resistant to medication. For these patients, the side effects of ECT pale in comparison to the sufferings they endure while in the grip of severe depression.
 - 5.2.3 ECT is a form of treatment that has received a lot of bad press in both scientific and popular literature. Although it is true that ECT may cause a certain degree of short term memory impairment, studies have shown that baseline memory is usually recovered within three months post-ECT. Other side effects include headache, myalgia and nausea, but these are risks attendant upon any procedure that requires general anesthesia.
- 5.3 Suicide risk assessment
 - 5.3.1 Suicide risk is an important part of any psychiatric assessment and it would be covered in Annex 2-C on suicide risk assessment

6 When to refer

- 6.1 There are cases in which referral to a psychiatrist is indicated. This is particularly so for patients who are suicidal or homicidal, or who are so severely ill that they have become psychotic (having hallucinations or odd beliefs) or stuporous (refusing to talk, eat or drink). These patients require urgent psychiatric treatment.
- 6.2 Some patients may be suffering from other psychiatric conditions that will necessitate more intensive treatment. Common conditions include anxiety disorders, mania, drug misuse, eating disorders and dementia.
- 6.3 Other patients may be treatment-resistant or belong to a special group (e.g. pregnant, pediatric or geriatric patients). It is likely that these patients will also require specialist care, but they may be referred on a non-urgent basis to a psychiatric clinic if there is no immediate threat to safety.
- 6.4 To summarise, when referral is recommended when there is:
 - a) Suicide risk
 - b) Need for hospitalization
 - c) Failure of adequate medication trial
 - d) Complicated medical or psychiatric morbidity including antepartum or postpartum depression
 - e) Need for combined medication & psychotherapy
 - f) Evaluation for pharmacotherapy
 - g) Need for ECT

7 Clinical Indicators

- 7.1 Participating medical institutions must monitor the quality of care that patients receive and submit the following indicators via electronic channels to MOH:
 - a) Clinical Global Impression (CGI) Scale
 - b) Consultation for CDMP Mental Health
- 7.2 The Clinical Global Impression (CGI) Scale is a simple, easy to administer 2-item scale (each item has 7 points) scale to indicate the severity and improvement of the mental condition. It is chosen as it can be applied to reflect severity and improvement in other mental conditions. The scoring details are further described in Annex 4-A.

7.3 As patient compliance to follow-up is an important aspect of care for patients suffering from mental illness, the Consultation for CDMP Mental Health (at least twice per year) is a key care compliance indicator for the Programme.

7.4 Table B.1 summarises the clinical indicators required for patients with Major Depression.

Table B.1 Clinical Indicators for Major Depression Patients

	Clinical Data/Indicator	Recommended Frequency	Remarks
1	Clinical Global Impression (CGI) Scale: a. Severity, b. Improvement	At least once yearly	Provider-administered
2	Consultation ² for CDMP Mental Health	At least twice per year	Provider-administered

² i.e. follow up visits.

Table B.2 Anti-Depressant Maximum Dose table for Adult Outpatients

DRUG CLASS	DRUG NAME	EXAMPLES OF BRAND NAMES	USUAL ADULT STARTING DOSE	USUAL ADULT DOSE RANGE (PER DAY)	MAX. ADULT RECOMM. DOSE (PER DAY)
TCA	Amitriptyline	APO-Amitriptyline®	25 mg/day	25 - 300 mg	300 mg
	Clomipramine	Anafranil®	25 mg/day	25 - 250 mg	300 mg
	Dothiepin	Prothiaden®	25 mg/day	75 - 150 mg	225 mg
	Imipramine	APO-Imipramine®	25 mg/day	50 - 200 mg	300 mg
	Nortriptyline	APO-Nortriptyline®	25 mg/day	75 - 100 mg	150 mg
	Trimipramine	APO-Trimip®	25 mg/day	50 - 150 mg	200 mg
SSRI	Escitalopram	Lexapro®	5 - 10 mg/day	10 - 20 mg	20 mg
	Fluoxetine	Prozac®	10 - 20 mg OM	20 - 60 mg	80 mg
	Fluvoxamine	Faverin®	25 - 50 mg/day	50 - 300 mg	300 mg
	Paroxetine	Seroxat CR®	12.5 mg/day	12.5 - 50 mg	75 mg
	Sertraline	Zoloft®	25 - 50 mg/day	25 - 200 mg	200 mg
SNRI	Duloxetine	Cymbalta®	30 - 60 mg/day	30 - 60 mg	120 mg
	Venlafaxine	Efexor XR®	75 mg/day	75 - 225 mg	225 mg
NASSA	Mirtazapine	Remeron Soltab®	15 - 30 mg/day	15 - 45 mg	45 mg
RIMA	Moclobemide	Aurorix®	150 mg/day	150 - 600 mg	600 mg
OTHERS	Bupropion	Wellbutrin SR®	150 mg OM, increase to 150 mg BD on day 4 if well tolerated	150 - 300 mg	300 mg
	Maprotiline	Lunaline®	25 mg/day in divided doses	75 - 150 mg	150 mg
	Tianeptine	Stablon®	25 - 50 mg/day in 2 - 4 divided doses	25 - 37.5 mg	50 mg
	Trazodone	Trittico®	25 - 150 mg/day in divided doses	50 - 300 mg	600 mg

Abbreviations

- TCA: Tricyclic Antidepressant
- SSRI: Selective Serotonin Reuptake Inhibitor
- SNRI: Serotonin and Noradrenaline Reuptake Inhibitor
- NASSA: Noradrenaline and Specific Serotonin Antidepressant
- RIMA: Reversible Inhibitor of Monoamine Oxidase

Important Notes:

- For details, please consult the manufacturers most current product literature or other standard references.
- Lowest effective doses should be used. Elderly patients should be carefully initiated at lower doses of a suitable antidepressant. Individualized dosing for any antidepressant should be based on an in-depth evaluation of the individual patient's therapy requirement with considerations to issues such as contraindications, warnings, precautions, adverse reactions and interactions with other drugs.
- There are many adverse drug interactions with antidepressant drug use, please refer to drug literature for details. Some examples of potential clinically significant interactions with general medicines when initiating/increasing an antidepressant dose can be:
- Triptans (e.g. Sumatriptan), St. John's Wort: Risks of serotonin syndrome with SSRIs and related antidepressants.
- Insulins, oral hypoglycaemic agents: Risks of hypoglycaemia with some antidepressants (e.g. Fluoxetine)
- Theophylline, Clozapine: Risks of toxicity with Fluvoxamine
- Digoxin: Risks of toxicity with Fluoxetine
- Anticonvulsants: Levels affected by many antidepressants. Seizure threshold reduced by TCAs, bupropion.
- Warfarin: Risks of bleeding with many antidepressants (e.g. Fluvoxamine)
- Precautions when switching antidepressants: Other antidepressants should not be started until at least 2 weeks after Moclobemide has been stopped. Moclobemide should not be started until at least 1 week after a TCA or SSRI or related antidepressant has been stopped (2 weeks in the case of Sertraline, and at least 5 weeks in the case of Fluoxetine). Combinations of SSRIs and related antidepressants may cause serotonin syndrome, hypotension and drowsiness.

References:

British National Formulary Vol. 57 (Mar 2009)
MICROMEDEX (DRUGDEX) Healthcare Series Vol. 140 (2009)
American Hospital Formulary System (2009 Edition)
Manufacturers' Product Information

Table B.3. Augmentation Agents (Mood Stabilizers and Atypical Antipsychotics) studied for treatment of Major Depressive Disorder partially responsive to an adequate trial of Antidepressant (please consult specialist)^a

Augmentation agents	Starting Dose/	Titration	Target Dose Range	Maximum Daily Dose	Schedule
Lithium Carbonate	400 mg/day	Every 1-2 weeks	600 – 900 mg/day Based on serum level (target 0.4 – 0.6 mmol/L), clinical response and tolerability	2.4 g/day	Once or twice daily
Valproate	500-750 mg/day in divided dose, or up to loading dose of 20 mg/kg/day	500 mg/day every 1-2 weeks	750 mg-2 g/day Based on serum level (target 50-100 mg/L), clinical response and tolerability	2.5 g/day, or up to 60 mg/kg/day	Once or twice a day
Carbamazepine	200 mg BD	200 mg every 2-4 days	400 – 600 mg/day Based on serum level (4-12 mcg/mL), clinical response and tolerability	1. 6g/day	Twice daily

	Monitoring Parameters ^b	Selected Effects	Selected Interactions ^c
	<p>(a) Electrolytes: Baseline and yearly. Avoid use in dehydration/ sodium depletion. Hyponatraemia can cause lithium toxicity.</p> <p>(b) Renal function (Urea & Creatinine): Baseline and yearly.</p> <p>(c) TFT: Baseline and yearly</p> <p>(d) ECG: Baseline and when indicated.</p> <p>(e) Serum Lithium levels: 5-7 days after initiation, dose or formulation changes, or introduction of interacting medication; 2 weekly in acute stage till stable; thereafter yearly in stable patients. Sample at least 12 hrs after last dose.</p>	<p>Acute renal dysfunction</p> <p>Diarrhea</p> <p>Dizziness</p> <p>ECG changes</p> <p>GI upset</p> <p>Hypo/ hyperthyroidism</p> <p>Nausea</p> <p>Polyuria</p> <p>Sedation</p> <p>Thirst</p> <p>Tremor</p> <p>Weight gain</p>	<p>ACE inhibitors</p> <p>Caffeine</p> <p>NSAIDs</p> <p>Osmotic diuretics</p> <p>Theophylline</p> <p>Thiazides</p>
	<p>(a) FBC: Baseline</p> <p>(b) LFT: Baseline and at 1st month; then every 12 months if no abnormalities. Avoid use in active liver disease or severe hepatic dysfunction</p> <p>(c) Serum Valproate levels: At least 2-3 days after initiation or dose change. Sample before 1st dose of the day.</p>	<p>Alopecia</p> <p>Ataxia</p> <p>Dizziness</p> <p>GI upset</p> <p>Hepatitis</p> <p>Pancreatitis</p> <p>Polycystic ovarian syndrome</p> <p>Rash</p> <p>Somnolence</p> <p>Thrombocytopenia</p> <p>Weight gain</p>	<p>Antipsychotics</p> <p>Benzodiazepines</p> <p>Carbamazepine</p> <p>Lamotrigine (SJS)</p> <p>Lithium</p> <p>MAOIs</p> <p>Phenytoin</p> <p>TCA's</p> <p>Warfarin</p>
	<p>(a) FBC: Baseline and 1st 2 months, thereafter 6-12 monthly. Discontinue if signs of bone marrow suppression or leucopenia.</p> <p>(b) Electrolytes: Baseline and subsequently check sodium levels if symptoms of SIADH occur.</p> <p>(c) Serum Carbamazepine levels: 5-7 days after initiation, weekly till stable, thereafter 6-12 monthly. Sample before 1st dose of the day. Due to Carbamazepine's autoinduction, it takes 2-4 weeks initially to reach steady state but thereafter steady state of subsequent dose change can be achieved after 3-4 days.</p>	<p>Ataxia</p> <p>Diplopia</p> <p>Dizziness</p> <p>Dysarthria</p> <p>GI upset</p> <p>Hyponatraemia</p> <p>Leukopenia</p> <p>Nystagmus</p> <p>Rash</p> <p>Sedation</p>	<p>Antipsychotics</p> <p>Benzodiazepines</p> <p>Cimetidine</p> <p>Corticosteroids</p> <p>Valproate</p> <p>Erythromycin</p> <p>Lamotrigine</p> <p>Oral contraceptives</p> <p>SSRIs</p> <p>TCA's</p> <p>Warfarin</p>

SUICIDE RISK ASSESSMENT

Assessment of suicide risk is critical. The patient may already have attempted suicide or performed an act of self-harm; it is important to ask. Suicidality is a psychiatric emergency that warrants immediate admission.

Presence of the following features indicates a risk of suicide:

- Demographic factors – the classic profile for a successful attempt is an elderly single male.
- Other demographic factors include divorce, widowed, unemployed with no religion.
- Poor or no social support
- Presence of a psychiatric condition: especially depression and schizophrenia
- Comorbid substance abuse and dependence
- Personality traits, impulsive, poor coping with stress, borderline and anti-social personality disorders
- Presence of a painful debilitating condition
- Previous suicide attempts
- Family history of suicide
- Premeditation – e.g. timing and location of the attempt; collection of necessary materials; rehearsal of the act
- Last acts – e.g. writing goodbye letters; distributing personal belongings
- Effort to avoid detection – e.g. attempting suicide while alone in a locked room; choosing a time when the family is away or asleep
- Choosing a method that they perceive as lethal
- Regret that they are still alive
- Absence of specific plans and goals for the future; having nothing to live for

How to inquire about suicidal ideation

It can be very daunting to assess for suicidal ideation for the uninitiated. Rest assured that asking for suicidal ideations will not result in this happening. In fact, you are likely to miss it if you don't enquire. Here is a suggested flow for this line of questioning which is less challenging to ask:

1. "Do you sometimes have a feeling that life isn't worth living, or do you think about death much?"
2. "Do you sometimes think that if you died tomorrow from an accident or illness, that it just wouldn't matter?" (*Passive ideation*)
3. "Have you had thoughts of killing yourself?" (*Active ideation*)

CHAPTER THREE:

REGISTRATION AND MEDISAVE USE

1 Policy on Medisave Use

- 1.1 The primary purpose of Medisave is to help Singaporeans afford costly hospitalisations. For chronic diseases, early detection and good management help patients avoid subsequent costly hospitalisation. To bring about better health outcomes, MOH has decided to allow Medisave to cover selected chronic diseases.
- 1.2 Nonetheless, to prevent over-consumption and over-servicing, three safeguards have been put in place under the Medisave for Chronic Disease Management Programme:
 - a) Deductible: A deductible of \$30 will be set on each outpatient bill, i.e. bills below \$30 will not be eligible for Medisave claims.
 - b) Co-payment: A co-payment of 15 percent on each outpatient bill will be set, in excess of the deductible, and
 - c) Annual withdrawal limit: An annual outpatient withdrawal limit of \$300 per Medisave account.

Example:

For a bill of \$130, a patient will need to pay \$45 out-of-pocket. This is because the patient pays the first \$30 of the bill and 15 percent of the remainder (\$100, in this case). The remaining \$85 can be claimed from Medisave.

2 Clinics Currently Participating in the Programme

- 2.1 For clinics already registered on the Programme and participating in a shared care or GP partnership programme with a Restructured Hospital, there is no need to register for the new conditions. These clinics will be able to help patients who are suffering from Schizophrenia and Major Depression to claim Medisave for their outpatient treatments.
- 2.2 The Medisave withdrawal limits for patients under the Programme remain as \$300 per Medisave account, per calendar year, regardless of the number of chronic diseases that they are currently being treated for. The annual withdrawal limit of \$300 per account is reset on 1 Jan each year.

- 2.3 The transaction cost for each Medisave claim has been brought down to \$2.91³ with \$2.44 charged by CPF Board for every Medisave account processed and the remaining \$0.47 charged by NCS⁴ for MediClaim system usage.
- 2.4 The guidelines on the use of Medisave for the new conditions are updated in Section 4 of this Chapter.
- 2.5 The claim submission process detailed in Section 5 of this Chapter remains unchanged.
- 2.6 Similar to the earlier approved conditions, Medisave claims for Schizophrenia and Major Depression will be audited as well. Please note that in case the Medisave claim includes complications due to the approved chronic disease, the doctor would need to document clearly the causal relationship between the approved chronic condition and the complication which arose from it.

3 Registration Process for Medisave for Chronic Disease Management Programme

- 3.1 Clinics That Wish to Participate on the Programme
- 3.1.1 To be on the Programme, both the clinic / medical institution and its doctors have to register with and be accredited by MOH. Upon accreditation, the doctors can then make Medisave claims for their patients.
- 3.1.2 An outline of the registration and accreditation process is provided in Table 3.4 (page 48).
- 3.2 Registration of Clinic / Medical Institution with MOH
- 3.2.1 To join the Programme, you will need to fulfil the following criteria:
- a) Be able to make Medisave claims for patients through the online MediClaim system⁵
 - b) Sign a Deed of Indemnity with CPF Board
 - c) Be able to submit Clinical Quality data to MOH

³ The transaction cost of \$2.91 assumes 1 Medisave account is used. Figures exclude 7% GST charges. With GST, the transaction cost is \$3.11.

⁴ National Computer Systems (NCS) is the company appointed by MOH to maintain the MediClaim system. The MediClaim system is an online e-service for clinics/medical institutions to submit Medisave claims to CPF Board for processing.

⁵ Clinics which are not ready to make claims online can approach Service Bureaus to help them with their paper claims in the interim. The details of these Service Bureaus can be found on the MOH website.

3.2.2 To make claims for patients through the online MediClaim system, clinics / medical institutions need:

- a) MediClaim User account
- b) Security Token Card (non-refundable cost of \$203.30 (inclusive of 7% GST))
- c) A Personal Computer / Laptop with the following configuration
 - (i) CPU Pentium III and above
 - (ii) Memory (RAM) Minimum of 256MB
 - (iii) Operating System Windows XP
 - (iv) Browser Internet Explorer 6.0
 - (v) Internet connection
- d) GIRO arrangement with CPF Board for Medisave payments to be credited into the clinic / medical institution's bank account
- e) GIRO arrangement with CPF Board for the payment of Medisave claims handling charges
- f) GIRO arrangement with NCS for the payment of MediClaim usage charges
- g) Training to process Medisave claims

3.2.3 Forms to Complete

- a) Clinics / Medical institutions interested in joining the Programme will need to submit the following forms to MOH:
 - (i) E-Application for Clinics to Participate in the Medisave for Chronic Disease Management Programme (by MOH)
 - (ii) Direct Authorisation Credit Form (by CPF Board)
 - (iii) GIRO Form (MediClaim charges by NCS)
 - (iv) GIRO Form (Medisave charges by CPF Board)

The E-Application website can be accessed via <http://www.moh.gov.sg/mmae/overview.aspx>

3.2.4 Clinic / Institution staff who will be making Medisave claims are required to attend a free half-day training session on Medisave claims process, Medisave use guidelines and use of the MediClaim system. Clinics / Institutions are also required to sign the Deed of Indemnity with CPF Board.

3.2.5 Clinics / Medical institutions participating in the Programme will be subjected to:

- a) Clinical quality checks conducted by MOH on patients who make Medisave claims through the clinics/institutions
- b) Professional medical audits conducted by MOH on Medisave claims
- c) Operational audits conducted by CPF Board on Medisave claims

3.3 Registration of Doctor with MOH

3.3.1 Doctors practising at accredited clinics / medical institutions need to register with MOH to participate in the Medisave for CDMP before they can make Medisave claims for their patients.

3.3.2 Interested doctors can submit an E-Application to participate in the Medisave for Chronic Disease Management Programme. The website is: <http://www.moh.gov.sg/mmae/DoctorApplication.aspx>. Registration of doctors in the Programme needs to be renewed every 2 years.

3.3.3 Registered doctors will be audited by MOH and CPF Board on the clinical outcomes and Medisave claims of their patients.

4 Guidelines on Medisave Use for Chronic Disease Outpatient Treatments

4.1 Participating clinics / medical institutions and doctors have to comply with these guidelines on Medisave use for chronic disease outpatient treatments:

4.2 Medisave use is allowed only for the outpatient treatments of the following chronic diseases and / or its associated complications:

- a) Diabetes Mellitus (ICD-9 diagnosis codes: 250.00 or 250.01)
- b) Hypertension (ICD-9 diagnosis code: 401.9)
- c) Lipid Disorders (ICD-9 diagnosis code: 272.4)
- d) Stroke (ICD-9 diagnosis code: 436)
- e) Asthma (ICD-9 diagnosis code: 493)
- f) COPD (ICD-9 diagnosis codes: 491, 492 or 496)
- g) **Schizophrenia** (ICD-9 diagnosis codes: 295 or 297)
- h) **Major Depression** (ICD-9 diagnosis code: 296)

4.3 Medisave claims will be accepted only if

- a) The patient is diagnosed to have one or more of the 8 chronic diseases listed above, and has been confirmed by a psychiatrist to be suitable for follow-up in the community.
- b) The patient has been enrolled into their respective DMP (see chapter 2 for details).
- c) The claim must be related to the essential care components in the management of that specific DMP or for the treatment of the disease and its complications. The doctor in-charge must clearly document this causal relationship or link between the disease and its treatment.
- d) In this regard, Medisave claims will generally not be allowed for sleeping pills, slimming pills or erectile dysfunction drugs used for lifestyle purposes.
- e) Under certain equivocal circumstances, the auditors will seek further clarification with the prescribing doctor and decide on acceptance of claim on a case-by-case basis.

4.4 Only doctors and clinics / medical institutions which are Medisave accredited and participating in Programme can make Medisave claims for patients. For schizophrenia and major depression, doctors also need to be participating in a Shared Care or GP Partnership Programme with a Restructured Hospital to make Medisave claims for patients receiving outpatient treatment for schizophrenia and major depression.

4.5 Doctors must certify (on the Medisave Authorisation Form) that patients they make Medisave claims for are suffering from one or more of the approved chronic diseases and treatment is related to that chronic condition.

4.6 The table below provides a guideline on what can be used for Medisave claims. The doctor is expected to exercise clinical judgment and discretion when making claims.

MEDISAVE MAY BE USED FOR
<ul style="list-style-type: none"> Management of the patient based on the care components in the respective Disease Management Programme (DMP)
<ul style="list-style-type: none"> Medical consultations primarily for the approved chronic conditions under the Programme.
<ul style="list-style-type: none"> Relevant investigations (including laboratory and radiological) for the evaluation of the disease or its complications.
<ul style="list-style-type: none"> Prescribed drugs and nursing care for the management of the approved conditions or their complications.
<ul style="list-style-type: none"> Physiotherapy, occupational and speech therapy for the rehabilitation of the patient.

4.7 Tables 3.1 to 3.3 lists the investigations, drugs and therapies for the treatment of schizophrenia and major depression for which Medisave use can be allowed.

Table 3.1: Recommended investigations for patients receiving selected pharmacotherapy

S/N	Investigation	Indication
1	Full Blood Count	Patients on Clozapine, Carbamazepine and Sodium Valproate
2	Renal Panel (U/E/Cr)	Patients on Lithium
3	Thyroid Function Test	Patients on Lithium
4	Liver Function Test	Patients on Valproate, Carbamazepine
5	Fasting Glucose	Patients on Atypical Antipsychotics
6	Lipid Profile	Patients on Atypical Antipsychotics
7	Serum levels	Patients on Lithium, Carbamazepine and Sodium Valproate

Table 3.2: List of Medisave Claimable Drugs for Treatment of Depression & Schizophrenia

S/N	Drug	S/N	Drug
1	Amisulpride	23	Lithium
2	Amitriptyline	24	Maprotiline
3	Aripiprazole	25	Mirtazepine
4	Benzhexol	26	Moclobemide
5	Benztropine	27	Nortriptyline
6	Bupropion	28	Olanzapine
7	Carbamazepine	29	Paliperidone
8	Chlorpromazine	30	Paroxetine
9	Citalopram	31	Perphenazine
10	Clomipramine	32	Quetiapine
11	Clozapine	33	Risperidone
12	Dothiepin	34	Sertraline
13	Doxepin	35	Sodium Valproate
14	Duloxetine	36	Sulpiride
15	Escitalopram	37	Tianeptine
16	Fluoxetine	38	Trazodone
17	Flupenthixol	39	Trifluoperazine
18	Fluphenazine	40	Trimipramine
19	Fluvoxamine	41	Venlafaxine
20	Haloperidol	42	Ziprasidone
21	Imipramine	43	Zuclopenthixol
22	Lamotrigine		

Table 3.3: Allowable Therapies for Treatment of Schizophrenia and Major Depression

	Condition
1. Electro-convulsive therapy (ECT)	Schizophrenia and/or major depression
2. Cognitive Behavioural Therapy	
3. Occupational Therapy	

- 4.8 Anything that is not listed in the above Tables is not claimable by Medisave under this Programme. Some examples are (list is not exhaustive):
- a) Conditions not related to the approved chronic diseases (e.g. cancer).
 - b) Tests prior to diagnosis of disease (e.g. OGTT), or unrelated to the conditions (e.g. Pap smear).
 - c) Purchase or rental of nebulisers, wheelchair, prosthesis or other home nursing equipment.
 - d) Employment of caregiver or nursing aids.
 - e) Alternative medicine (e.g. acupuncture)
 - f) Drugs and therapies not explicitly listed as Medisave-approved for treatment of schizophrenia and major depression.
- 4.9 Eligible patients can use their own and immediate family members' Medisave for payment of their outpatient treatments. Immediate family members refer to the spouse, parent or child of the patient. Grandparents who are Singapore citizens or PRs, can also use their grandchildren's Medisave. Siblings are not considered immediate family members.
- 4.10 The amount of Medisave that can be used is subject to the 3 conditions mentioned in paragraph 1.2 of this Chapter:
- a) Deductible: A deductible of \$30 apply for each outpatient bill, i.e. bills below \$30 will not be eligible for Medisave claims.
 - b) Co-payment: A co-payment of 15 percent on each outpatient bill also apply, in excess of the deductible, and
 - c) Annual withdrawal limit: An annual outpatient withdrawal limit of \$300 per Medisave account.

Scenario 1

Mr Lim is a retiree with 2 working children. He is suffering from COPD and has Medisave from his earlier years of working. Mr Lim can make use of a maximum of \$900 of Medisave from his and his children's Medisave accounts (total of 3 accounts) every year to pay for his outpatient treatments.

Scenario 2

The grandmother and parents of Ms Tan Hao Sun are suffering from Diabetes Mellitus. However they have no Medisave. Ms Tan can make use of a total of \$300 (annual withdrawal limit) of her own Medisave every year to pay for the outpatient treatments of all 3 of her elders.

Scenario 3

Mdm Haslina is a working adult and has no children. She has Hypertension and Asthma and can use up to \$300 (annual withdrawal limit) from her Medisave account to pay for treatment related to Hypertension and Asthma.

- 4.11 Patients may have employer benefits and outpatient insurance. Employer benefits and outpatient insurance can be used to offset the deductible and co-payment cash requirements.
- 4.12 In cases where only part of the chronic disease outpatient treatment bill is payable by employer companies and the patient chooses to use Medisave for the balance of the bill, clinics would:
- Follow the current arrangements it has with the employer to seek payment and
 - Help patients submit the Medisave claim.
- 4.13 Bills should be paid using employers' benefits and any relevant insurance that the patient may have first, before claiming from Medisave.
- 4.14 A patient who wishes to use multiple Medisave accounts to pay for his / her outpatient treatment expenses in 1 claim may use up to a maximum of 10 Medisave accounts. However the costs for the processing of such claims are higher:

No. of Payers	Transaction Cost ⁶	No. of Payers	Transaction Cost ⁷
1 payer	\$2.91	6 payers	\$15.11
2 payers	\$5.35	7 payers	\$17.55
3 payers	\$7.79	8 payers	\$19.99
4 payers	\$10.23	9 payers	\$22.43
5 payers	\$12.67	10 payers	\$24.87

⁶ Transaction cost is computed based on the following formula: \$0.75 + (\$2.61 * (No. of Medisave payers)). Figures are inclusive of 7% GST.

⁷ Authorisation can be for a period of 3, 6 or 12 months, or for an open-ended length of time subject to revocation in writing.

5 Process of Making a Medisave Claim

5.1 A typical process of making a Medisave claim for a patient is described below:

5.1.1 What to convey to patient or immediate family members who wish to use Medisave

- a) The treatment components
- b) The cost of treatment
- c) Estimated amount that can be claimed from Medisave
- d) Out-of-pocket cash payment that the patient needs to make
- e) Clinic's policy on transaction costs

5.1.2 Administrative Procedure

- a) Each Medisave account holder will need to sign a Medisave Authorisation Form (MAF) to authorise the CPF Board to deduct his / her Medisave savings for the treatment of the patient. The authorisation can be made on a per treatment basis or over a period of time⁷. The authorisation will stand until revoked in writing.
- b) Clinic/Medical institution staff should witness the identity and the signature by the account holder. Clinic/ Institution staff should also verify relationships stated in the MAF, where possible.
- c) Clinics/ Medical institutions are to submit the Medisave claims electronically to CPF Board for processing via the MediClaim System.

5.1.3 The MAF is a legal document. As such, CPF Board is unable to accept the authorisation from a person of unsound mind. Such a person either

- a) has a medical report from a psychiatrist declaring that the patient is permanently mentally incapacitated; or
- b) is determined by a doctor, at the material time, to be unable to make a decision for himself. An inability to make a decision is when a patient is unable to:
 - (i) Understand the information relevant to the decision;
 - (ii) Retain that information relevant to the decision;
 - (iii) Use or weigh that information as part of the decision making process; and
 - (iv) Communicate his decision (by any means).

5.1.4 If the patient is deemed to be mentally incapacitated, his immediate family members would need to authorise the use of the patient's own Medisave for his treatment using the MAF for Mentally Incapacitation/Unconscious patients. The doctor in charge would need to certify on Part V of the MAF.

5.1.5 Claim Process

- a) Payment will be made daily to Medisave-accredited medical institutions via InterBank Giro (IBG) on the 3rd working day after the approval date of the Medisave claims.
- b) Currently, the transaction cost for each Medisave claim is \$2.91⁸ - \$2.44 is charged by CPF Board for every Medisave account processed and the remaining \$0.47 is charged by NCS⁹ for MediClaim system usage. The transaction charges will be collected on a monthly basis via InterBank Giro (IBG). Patient's Medisave cannot be used to cover the processing fees. Should medical institutions decide to pass on this cost to the patient, the description of this item in a patient's bill should be generically termed, e.g. "administrative costs".

5.1.6 Where a clinic / institution has made an overclaim or unauthorised deduction from Medisave, it will have to refund the amount deducted to the Medisave account. The clinic / institution will have to pay the interest lost by individuals if it is the clinic's / institution's error. The interest will be computed at the prevailing CPF interest at the time of the adjustment.

5.1.7 For clinics which are unable to make claims electronically via the MediClaim system, they could, in the interim, approach Service Bureaus to help them with their paper submissions. Contact details of these Service Bureaus are available on the MOH website (www.moh.gov.sg).

5.2 Audit

5.2.1 The CPF Board may carry out regular audits of the participating clinic's / medical institution's records for Medisave claims. There are 2 types of audits for the Medisave claims:

⁸ The transaction cost of \$3.61 assumes 1 Medisave account is used. Figures include 7% GST charges.

⁹ National Computer Systems (NCS) is the company appointed by MOH to maintain the MediClaim system. The MediClaim system is an online e-service for clinics/medical institutions to submit Medisave claims to CPF Board for processing.

- a) Operational audit: This audit looks at the operational aspect of making Medisave claims such as completion of Medisave Authorisation Forms, etc
- b) Professional audit: This audit looks at treatments administered for each claimed treatment to determine if it is related to the proclaimed diagnosis

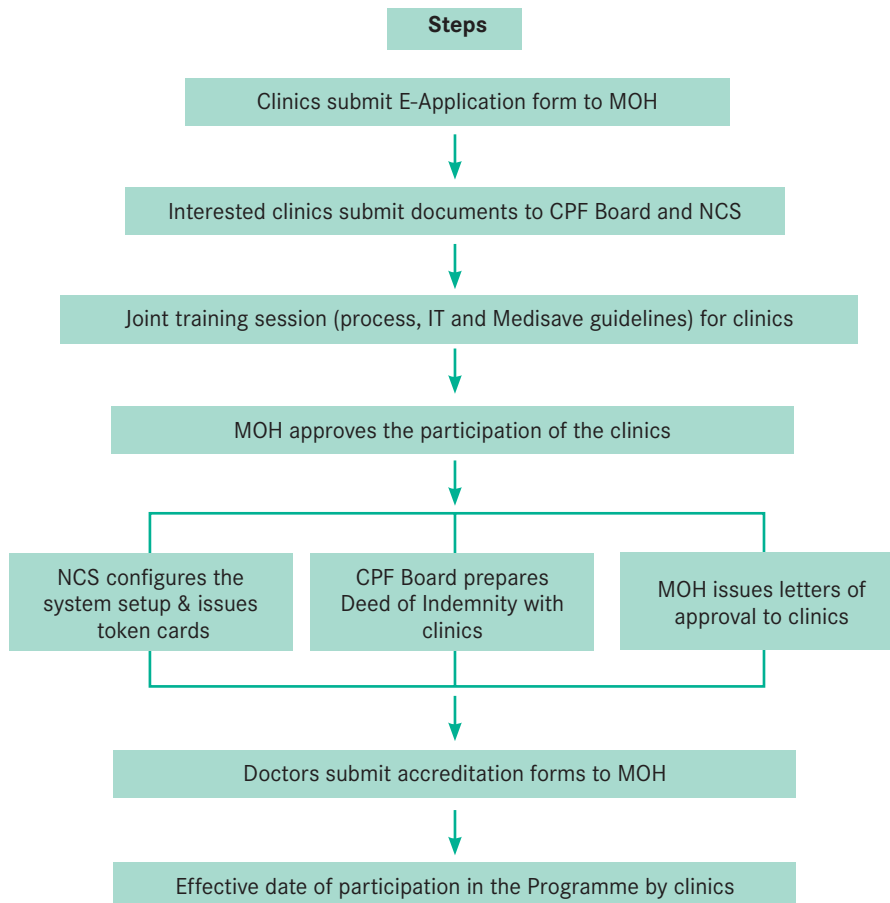
5.2.2 Prior notice will be given to identify the cases to be audited. The following documents are required for the audit:

- a) Hard copies of Claim Forms submitted electronically
- b) Medisave Authorisation Forms
- c) Itemised bills/ Payment records (detailing consultation charges, individual drug charges, DRP , nursing charges, other services)
- d) Photocopies of identification papers (where necessary)
- e) Case records of the patient for the visits which were claimed. For claims on the complications of the approved chronic diseases, doctors have to document the causal relationship. For packages, please indicate dates of visits which are claimed.
- f) Investigation/ Test reports where available e.g. HbA1c results , lipid results
- g) Prescription records

5.2.3 Evidence supporting diagnosis e.g. documentation in case records or laboratory reports

5.2.4 Clinics / Medical institutions or doctors found guilty of wrong claims may be required to refund the amount to the affected Medisave accounts. Each time the doctor is found making wrong claims for his patients, he / she will be issued warning letters. His / Her Medisave privilege may be suspended upon repeated infringements.

Table 3.4: Registration and Accreditation Process (Medisave for Chronic Disease Management Programme)



CHAPTER FOUR:

CAPTURE AND SUBMISSION OF CLINICAL DATA

1 Commencement of Clinical Data Collection

1.1 For patients who have been enrolled in the Schizophrenia and Major Depression Chronic Disease Management Programme (CDMP), data collection will commence at the patient's first visit to the doctor for the chronic condition.

1.2 The clinical data fields required for the two new chronic disease conditions, Schizophrenia and Major Depression, are shown below :

(A) Schizophrenia

DATA TO BE ENTERED ONCE ONLY (EXCLUDING UPDATES)		
NRIC / FIN:		
DOB (DD/MM/YYYY):		
Gender: Male (), Female ()		
DATA TO BE ENTERED ONCE A YEAR		DATA TO BE ENTERED ONCE EVERY 6 MONTHS
Blood test for fasting glucose (for patients on atypical antipsychotics)	Yes (if blood test performed) OR No (if blood test not performed)	Consultation for CDMP Mental Health
Blood test for fasting lipids (for patients on atypical antipsychotics)	As above	
Clinical Global Impression (CGI) Scale:		
a) Severity	Numerical value from 1-7	
b) Improvement	Numerical value from 0-7	

(B) Major Depression

DATA TO BE ENTERED ONCE ONLY (EXCLUDING UPDATES)		
NRIC / FIN:		
DOB (DD/MM/YYYY):		
Gender: Male (), Female ()		
DATA TO BE ENTERED ONCE A YEAR		DATA TO BE ENTERED ONCE EVERY 6 MONTHS
Clinical Global Impression (CGI) Scale:		Consultation for CDMP Mental Health
a) Severity	Numerical value from 1-7	
b) Improvement	Numerical value from 0-7	

- 1.3 The clinical data fields required for all the eight chronic conditions in CDMP are summarised in the template, please see Annex 4-B (Page 53).
- 1.4 The quality of patient care for the eight chronic conditions will be evaluated according to whether the relevant process and care components have been met as listed below:

Chronic Condition(s)	Care Components Per Year ¹⁰
Diabetes Mellitus	<ul style="list-style-type: none"> • Two blood pressure measurements • Two bodyweight measurements • Two hemoglobin A1c (HbA1c) tests • One serum cholesterol level (LDL-C) test • One smoking habit assessment • One eye assessment • One foot assessment • One nephropathy screening test
Hypertension	<ul style="list-style-type: none"> • Two blood pressure measurements • One bodyweight measurement • One smoking habit assessment
Lipid Disorders	<ul style="list-style-type: none"> • One serum cholesterol level (LDL-C) test • One smoking habit assessment
Stroke	<ul style="list-style-type: none"> • Two blood pressure measurements • One serum cholesterol level (LDL-C) test • One smoking habit assessment • One clinical thromboembolism risk assessment
Asthma	<ul style="list-style-type: none"> • One inhaler technique assessment • One smoking habit assessment • Two Asthma Control Test (ACT)¹¹ scores
COPD	<ul style="list-style-type: none"> • One inhaler technique assessment • One smoking habit assessment • One bodyweight measurement • One influenza vaccination
Schizophrenia	<ul style="list-style-type: none"> • One Clinical Global Impression (CGI) Scale for each item (severity, improvement) • Two consultation for CDMP Mental Health • One blood test for fasting lipids¹² • One blood test for fasting glucose¹⁰
Major Depression	<ul style="list-style-type: none"> • One Clinical Global Impression (CGI) Scale for each item (severity, improvement) • Two consultation for CDMP Mental Health

¹⁰ 'per year' refers to 12 months from the first visit of the patient for the chronic condition(s).

¹¹ This is only applicable for patients aged 4 years and above. For patients aged 4 to < 12 years, please use the Childhood ACT, and for those aged 12 years and above, the ACT.

¹² Only for patients with schizophrenia on atypical antipsychotic medications

2 Collection and Submission of Clinical Data

- 2.1 The collection of clinical data can be carried out by:
 - 2.1.1 Manually recording the clinical data on a hardcopy template (Annex 4-B, page 53). Please note that for submission purposes the data will subsequently have to be keyed in via the online e-Service, which was introduced by MOH in Jan 2007.
 - 2.1.2 Recording the clinical data directly onto electronic records through the Clinic Management System installed for electronic submission of clinical data for Medisave enrolled patients.

3 Deadlines for Submission of Clinical Data to MOH

- 3.1 Submission of clinical data is an essential component of the Programme.
- 3.2 We encourage clinics to submit clinical data as soon as possible, during or immediately after the patient's clinic visit. Doing this would reduce the backlogs in submitting clinical data.
- 3.3 As per current practice, MOH would continue to provide each clinic, via the e-Service, daily online updates on the list of patients for whom data submission remains outstanding (see Section 10, Page 70). MOH would also send reminder letters, on a quarterly basis, to clinics which have outstanding list of patients with no clinical data submission for their data submission compliance.
- 3.4 Clinics are allowed to accumulate patient records for submission in batches. However for batch submissions, regular (e.g. weekly or monthly) submissions should be carried out to avoid backlogs in clinical data submission.
- 3.5 When using the electronic Clinic Management System to capture data during the consultation, the system may allow submission of data automatically at the end of each patient consultation.

CLINICAL GLOBAL IMPRESSION (CGI) SCALE

Considering your total clinical experience with this particular population, how would you rate this patient's mental condition at this time?

1) Severity of Illness

- 1 = Normal (not at all mentally ill)
- 2 = Borderline mentally ill
- 3 = Mildly mentally ill
- 4 = Moderately mentally ill
- 5 = Markedly mentally ill
- 6 = Severely mentally ill
- 7 = Extremely mentally ill

2) Global Improvement

- 0 = Not assessed
- 1 = Very much improved
- 2 = Much improved
- 3 = Minimally improved
- 4 = No change
- 5 = Minimally worse
- 6 = Much worse
- 7 = Very much worse

ANNEX 4-B

Data Fields required for Clinical Data Submission

Patient Details	
Patient Name	
NRIC/FIN	
DOB (dd/mm/yy)	
Gender	Male () Female ()
Race	Chinese () Malay () Indian () Others ()
Height (m)	
Current	
Smoker	Yes () No ()
Year Started Smoking (yyyy)	

Medical History	Yes (✓)	Year Started(yyyy)
Hypertension		
Hyperlipidemia		
Cerebrovascular Accident (CVA)		
Coronary Heart Disease (CHD)		
Diabetes (DM)		
DM Retinopathy		
DM Nephropthy		
DM Foot Complications		
Asthma		
Chronic Obstructive Pulmonary Disease (COPD)		
Major Depression		
Schizophrenia		

Diabetes Treatment	Yes (✓)	Year Started (yyyy)
Oral Medications		
Insulin		
Hypertension Treatment	Yes (✓)	Year Started (yyyy)
Oral Medications		
Hyperlipidemia Treatment	Yes (✓)	Year Started (yyyy)
Oral Medications		
Asthma Treatment	Yes (✓)	Year Started (yyyy)
Requires Controller		
Schizophrenia Treatment	Yes (✓)	Year Started (yyyy)
Atypical Anti-psychotic Prescribed		

A) Diabetes, Hypertension, Lipids and Stroke DMP¹³

For Diabetes, Hypertension, Lipids, Stroke					
Date of Visit (dd/mm/yy)	LDL-C (mg/dL)/(mmol/L)	Systolic BP (mmHg)	Diastolic BP (mmHg)	Weight (kg)	Avg. no. cigs/day
For Diabetes Only				For Stroke Only	
Date of Visit (dd/mm/yy)	Glucose HbA 1c (%)	Eye (✓)	Foot (✓)	Nephropathy (✓)	Thromboembolism (✓)

B) Asthma and Chronic Obstructive Pulmonary Disease DMP¹

	For Asthma, COPD		For Asthma Only	For COPD Only	
Date of Visit (dd/mm/yy)	Inhaler Technique Assessment (✓)	Smoking Assessment(✓)	Avg. no. cigs/day	Asthma Control Test (ACT) Score	Influenza Vaccination (✓)

C) Major Depression and Schizophrenia DMP¹

For Schizophrenia, Major Depression			
Date of Visit (dd/mm/yy)	Consultation for Mental Health	Clinical Global Impression (CGI) Scale	
		Severity	Improvement
For Schizophrenia (on atypical antipsychotics) Only			
Date of Visit (dd/mm/yy)	Blood Test for Fasting Lipids		Blood Test for Fasting Glucose

¹³ For the annual recommended frequency of the clinical indicators please refer to the table on pg. 50.

CHAPTER FIVE:

USER MANUAL FOR E-SERVICE CLINICAL DATA SUBMISSION

1 Introduction

1.1 Purpose

- a) The manual serves as a guide on how to use the Clinical Indicators Data Collection (CIDC) e-Service for the submission of data to MOH as part of CDMP.
- b) The manual is intended for the hospital/clinic staff who are doing clinical data and indicators submission. The staff should already be familiar with web browsing and the MediClaim e-Service.

1.2 System Requirements

In order to use the e-Service, an Internet-enabled computer with the followings is required:

- a) Hardware Requirements
The minimum recommended hardware configuration is:
 - Pentium III MHz Processor with 256MB RAM
 - At least 200 MB free hard disk space
- b) System Software Requirements
 - Windows XP
 - Internet Explorer 6.0 and above
 - Broadband Internet Connection
- c) Other Requirements
 - RSA token card
 - MediClaim user account

2 Getting Started

2.1 User Account

- 2.1.1 You will be using your MediClaim system user account to access the e-Service. The MediClaim account is the same one used for the submission of claims.

2.1.2 If you do not have an account for the claims submission, you will need to

2.2 Accessing the e-Service

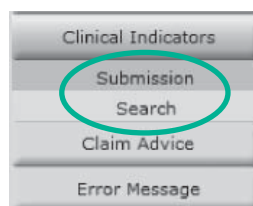
2.2.1 The web URL to access the MediClaim system is: <https://access.medinet.gov.sg>. Refer to the MediClaim user manual for details on login procedures.

The image shows the MediClaim login screen. At the top, it says "Welcome to" followed by the "MEDICLAIM" logo. Below the logo is a "Password Authentication" section with three input fields: "User ID", "Organisation ID", and "Password". A "Login" button is positioned below these fields. At the bottom of the screen, there is a small line of text: "Best Viewed with IE 6.0 or higher | Recommended screen resolution 1024 X 768 pixels | 16-bit true colour."

Screen 1 – MediClaim login screen

2.2.2 Upon successful login to the MediClaim system, you will be able to see the Clinical Indicators data collection e-Service in the left hand menu as shown on Screen 2 below. All users with access to the Chronic Disease Claim Form e-Service will have access to the Clinical Indicators Data Collection e-Service.

2.2.3 Click on the menu to display the functions available:



Screen 2 – Menu

- a) Submission is used to submit a new report.
- b) Search is used to retrieve submitted reports.

3 Clinical Indicators Report Submission

- 3.1 This function is used to submit clinical data on patients who have used their Medisave under the CDMP. A new submission can be made each time there is additional indicator information for the patient either on a per visit basis or consolidated over a few visits. All submissions are distinct and will be used for analysis by MOH on a cumulative basis.
- 3.2 To submit a new set of clinical data for a patient to MOH, click on the “Submission” sub-menu. The following screen will appear.

New Submission:

Patient ID Type:*

Patient NRIC/FIN:*

(as entered in Medisave claim form)

Diseases:*

☐ Diabetes ☐ Hypertension ☐ Lipid Disorder

☐ Stroke ☐ Asthma ☐ COPD

☐ Major Depression ☐ Schizophrenia

Click to go to Clinical Indicator Form in Screen 4

Condition	Care Components Per Year
Diabetes mellitus	<ul style="list-style-type: none"> Two blood pressure measurements Two bodyweight measurements Two haemoglobin A1c (HbA1c) tests One serum cholesterol level (LDL-C) test One smoking assessment One eye assessment One foot assessment One nephropathy screening test
Hypertension	<ul style="list-style-type: none"> Two blood pressure measurements One bodyweight measurement One smoking assessment
Lipid Disorder	<ul style="list-style-type: none"> One serum cholesterol level (LDL-C) test One smoking assessment
Stroke	<ul style="list-style-type: none"> Two blood pressure measurements One serum cholesterol level (LDL-C) test One smoking assessment One clinical thromboembolism risk assessment
Asthma	<ul style="list-style-type: none"> One inhaler technique assessment One smoking assessment Two Asthma Control Test (ACT) scores
COPD	<ul style="list-style-type: none"> One inhaler technique assessment One smoking assessment One bodyweight measurement One influenza vaccination
The following care components are only for CDMP Mental Health Programme patients:	
Major Depression	<ul style="list-style-type: none"> One Clinical Global Impression (CGI) Scale for each item (severity, improvement) Two consultations for CDMP Mental Health
Schizophrenia	<ul style="list-style-type: none"> One Clinical Global Impression (CGI) Scale for each item (severity, improvement) Two consultations for CDMP Mental Health One blood test for fasting lipids One blood test for fasting glucose

Screen 3 – New Submission

3.2.1 Select the Identification Type and enter the Patient NRIC/FIN.

3.2.2 Select the chronic disease applicable to this patient. You can select one or more diseases, as applicable.

3.2.3 Click on [Next] to proceed to the Clinical Indicator Form.

Date of Birth (DDMMYYYY):		<input type="text" value="02011900"/>	Sex:		<input type="text"/>
Race:		<input type="text" value="Malay"/>	Height (Metres):		<input type="text"/>
Current Smoker		<input type="radio"/> Yes <input checked="" type="radio"/> No		<input type="text"/> Year Started Smoking	
* denotes a mandatory field					

Known Medical History:			
Medical Condition	Diagnosis Year	Medical Condition	Diagnosis Year
<input checked="" type="checkbox"/> Diabetes	<input type="text" value="2000"/> (YYYY)	<input type="checkbox"/> Hypertension	<input type="text"/> (YYYY)
<input type="checkbox"/> DM Retinopathy	<input type="text"/> (YYYY)	<input checked="" type="checkbox"/> Lipid Disorder	<input type="text" value="1998"/> (YYYY)
<input type="checkbox"/> DM Nephropathy	<input type="text"/> (YYYY)	<input checked="" type="checkbox"/> Cerebrovascular Accident (CVA)	<input type="text" value="1999"/> (YYYY)
<input type="checkbox"/> DM Foot Complications	<input type="text"/> (YYYY)	<input type="checkbox"/> Coronary Heart Disease (CHD)	<input type="text"/> (YYYY)
<input type="checkbox"/> Asthma	<input type="text"/> (YYYY)	<input type="checkbox"/> COPD	<input type="text"/> (YYYY)
<input type="checkbox"/> Major Depression	<input type="text"/> (YYYY)	<input type="checkbox"/> Schizophrenia	<input type="text"/> (YYYY)

Diabetes Treatment:		Hypertension Treatment:	
Treatment	Year Started	Treatment	Year Started
<input type="checkbox"/> Oral Medications	<input type="text"/> (YYYY)	<input type="checkbox"/> Insulin	<input type="text"/> (YYYY)
<input type="checkbox"/> Oral Medications	<input type="text"/> (YYYY)		

Lipid Disorder Treatment	
Treatment	Year Started
<input type="checkbox"/> Oral Medications	<input type="text"/> (YYYY)

Schizophrenia Treatment (Only for CDMP Mental Health Programme patients)	
Treatment	Year Started
<input type="checkbox"/> Atypical Antipsychotics Prescribed	<input type="text"/> (YYYY)

Clinical Indicators:	
Date of Visit (DDMMYYYY):*	<input type="text"/>
Blood Pressure (Systolic/Diastolic):	<input type="text"/> / <input type="text"/> mmHg
LDL-C:	<input type="text"/> mg/dL
HbA1c (%):	<input type="text"/>
Weight (kg):	<input type="text"/> (use 999 if not measurable)
Smoking Assessment # :	<input type="checkbox"/>
Cigarettes smoked per day (average) ## :	<input type="text"/>
ACT Score (Asthma only):	<input type="text"/>
The following care components are only for CDMP Mental Health Programme patients:	
CGI - Severity of Illness:	<input type="text"/>
CGI - Global Improvement:	<input type="text"/>
* denotes a mandatory field	
# For current smokers, smoking cessation advice should be given. For non- or ex-smoker, please reinforce the benefits of not smoking cigarettes	
## Applicable to current smokers only	
### Only for patients on Atypical Antipsychotic Medication. To check the box if test done.	
<div> <div>Add Indicators</div> <div>Click to add clinical indicators (only those performed)</div> </div>	

DM - Eye Assessment:	<input type="checkbox"/>
DM - Nephropathy Assessment:	<input type="checkbox"/>
DM - Foot Assessment:	<input type="checkbox"/>
Stroke - Thromboembolism Risk Assessment:	<input type="checkbox"/>
Inhaler Technique Assessment (Asthma & COPD only):	<input type="checkbox"/>
Influenza Vaccination Assessment (COPD only):	<input type="checkbox"/>
Fasting Lipids Blood Test ###:	<input type="checkbox"/>
Fasting Glucose Blood Test ###:	<input type="checkbox"/>
Consultation for CDMP Mental Health (Indicates patient attendance):	<input type="checkbox"/>

Attending Physician Information:

Doctor Name:*

Specialty/Training:

Role:*

☒ Attending Doctor is the patient's regular primary physician

☐ The Clinic is the patient's regular primary provider

Screen 4 – Clinical Indicator Form


3.3 The Clinical Indicator Form consists of 4 sections:

- 3.3.1 Patient Details
- 3.3.2 Known Medical History
- 3.3.3 Clinical and Assessment Indicators
- 3.3.4 Attending Physician Information

4 Patient Details

- 4.1 This section details the patient's basic bio-data. If it is your first submission for the patient, only Patient NRIC, Name, Date of Birth, Sex, Race, and Current Smoker is required.
- 4.2 For subsequent submissions, only the Patient NRIC and Name are mandatory.
- 4.3 In the event of differences between two submissions, the data from the latest submission will be considered as the up-to-date information.

Patient Details:

Patient Name: *	<input type="text" value="Lee Yong Kun"/>	Patient NRIC/FIN:
Date of Birth (DDMMYYYY):	<input type="text" value="02121970"/> 	Sex:
Race:	<input type="text" value="Chinese"/>	Height (Metres):

Screen 5 – Patient Details

	Data Item	Remarks
1	Patient Name	Patient's name as in NRIC
1.	Patient NRIC/FIN	Will be copied from previous screen
2.	Date of Birth	Patient's date of birth (enter in DDMMYYYY format)
3.	Sex	Gender of patient
4.	Race	Ethnic group of patient
5.	Height (m)	Patient's height in metres (e.g. 1.75) and must be between 0.10 and 2.50 (inclusive) or 9.99 if not measurable
6.	Current Smoker	Whether patient is a current smoker
8.	Year Started Smoking	Year that patient started smoking (enter in YYYY format)

5 Known Medical History

5.1 This section details the patient's medical history.

5.2 If it is your first submission for the patient, please enter all the details.

5.3 For subsequent submissions, you can omit the details if there are no changes.

5.4 If you are unsure whether you have submitted the information, it is recommended you fill in the details.

Known Medical History:

Medical Condition	Diagnosis Year	Medical Condition	Diagnosis Year
<input checked="" type="checkbox"/> Diabetes	2000 (YYYY)	<input type="checkbox"/> Hypertension	(YYYY)
<input type="checkbox"/> DM Retinopathy	(YYYY)	<input checked="" type="checkbox"/> Lipid Disorders	1999 (YYYY)
<input type="checkbox"/> DM Nephropathy	(YYYY)	<input checked="" type="checkbox"/> Cerebrovascular Accidents (CVA)	1998 (YYYY)
<input type="checkbox"/> DM Foot Complications	(YYYY)	<input type="checkbox"/> Coronary Heart Disease (CHD)	(YYYY)
<input type="checkbox"/> Asthma			
<input type="checkbox"/> Major Depression			

Diabetes Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)
<input type="checkbox"/> Insulin	(YYYY)

Hypertension Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)

Lipid Disorder Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)

Schizophrenia Treatment (Only for CDMP Mental Health Programme patients):

Treatment	Year Started
<input type="checkbox"/> Atypical Antipsychotics Prescribed	(YYYY)

Screen 6 – Known Medical History and Treatment Sections

5.5 Enter the relevant medical conditions for the patient. If a particular condition is selected, then the year of diagnosis is mandatory. You only need to fill in medical conditions that apply to the patient.

5.6 Depending on the medical condition indicated, different treatment sections will be available for input (see below):

Medical Condition	Diabetes Treatment	Hypertension Disorder	Lipid Treatment	Asthma Treatment	COPD Treatment	Depression Treatment	Schizophrenia Treatment
Diabetes	Available	Available	Available	X	X	X	X
Hypertension	X	Available	Available	X	X	X	X
Lipid Disorders	X	X	Available	X	X	X	X
Asthma	X	X	X	Available	X	X	X
COPDX	X	X	X	Available	X	X	
Major Depression	X	X	X	X	X	Available	X
Schizophrenia	X	X	X	X	X	X	Available
None of the above	X	X	X	X	X	X	X

6 Clinical Indicators and Assessment

6.1 This section enables you to enter the indicator measurement and assessment done on the patient over any period.

6.2 Only measurements and assessments not reported previously need to be entered in this section.

6.3 Initially there will be no clinical indicators added to the report.

6.4 Fill in all the clinical indicators and use the [Add Indicators] button to save them (as shown in Screen 7).

6.5 There must not be any unsaved data left in the Clinical Indicators Section before submitting the form.

Clinical Indicators:

Date of Visit (DDMMYYYY):^{*}

Blood Pressure (Systolic/Diastolic): /

LDL-C: mg/dL

HbA1c (%):

Weight (kg): (use 999 if not measurable)

Smoking Assessment # : ☐

Cigarettes smoked per day (average) ## :

ACT Score (Asthma only):

The following care components are only for CDMP Mental Health Programme patients:

CGI - Severity of Illness:

CGI - Global Improvement:

* denotes a mandatory field

For current smokers, smoking cessation advice should be given; For non- or ex-smoker, please reinforce the benefits of not smoking cigarettes

Applicable to current smokers only

Only for patients on Atypical Antipsychotic Medication. To check the box if test done.

Click to add clinical indicators (only those performed)

DM - Eye Assessment: ☐

DM - Nephropathy Assessment: ☐

DM - Foot Assessment: ☐

Stroke - Thromboembolism Risk Assessment: ☐

Inhaler Technique Assessment (Asthma & COPD only): ☐

Influenza Vaccination Assessment (COPD only): ☐

Fasting Lipids Blood Test ###: ☐

Fasting Glucose Blood Test ###: ☐

Consultation for CDMP Mental Health (indicates patient attendance): ☐

Date	Indicators	Value
<input type="checkbox"/> 11-May-2007	Systolic BP(mmHg)	150
<input type="checkbox"/> 11-May-2007	Diastolic BP(mmHg)	100
<input type="checkbox"/> 11-May-2007	LDL(mg/dL)	40
<input type="checkbox"/> 11-May-2007	HbA1c(%)	30
<input type="checkbox"/> 11-May-2007	Weight(kg)	90
<input type="checkbox"/> 11-May-2007	Cigarettes smoked per day(Avg)	10
<input type="checkbox"/> 11-May-2007	DM-Eye Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Nephropathy Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Foot Assessment	Y
<input type="checkbox"/> 11-May-2007	Stroke-Thromboembolism Risk Assessment	Y

Click to delete selected clinical indicators

Add all Clinical Indicators into the table below after filling in the form above

Screen 7 – Filling in the Clinical Indicators

6.6 The list of Clinical Indicators and Assessments applicable are:

Clinical Indicators	Remarks
Glucose - HbA1c (%)	Value must be between 0.1 and 40.0 (inclusive)
Blood Pressure - Diastolic BP	Value (in mmHg) must be between 20 and 200 (inclusive) and must be smaller than Systolic BP reading
Blood Pressure - Systolic BP Lipids - LDL-C	Value (in mmHg) must be between 30 to 300 (inclusive) Value (in mg/dL) must be between 1 and 999 (inclusive) Value (in mmol/L) must be between 0.1 and 30.0 (inclusive) If measurement is attempted but not measurable due to high Triglyceride (TG) value, a reading of 999 (mg/dL) should be entered.
Lifestyle - Weight (kg)	Value (in kg) must be between 1.0 and 300.0 (inclusive) or 999 if not measurable
Smoking - Cigarettes smoked per day (average)	Value must be between 0 to 1000
Asthma - ACT Score	Value must be between 5 and 25 (inclusive) for patients who are aged 12 years and above. Value must be between 0 and 27 (inclusive) for patients who are aged between 4 to below 12 years old. Value must not be entered for patients who are aged below 4 years old.
CGI - Severity of Illness	Only for CDMP Mental Health Programme patients. Value must be between 1 and 7 (inclusive).
CGI - Global Improvement	Only for CDMP Mental Health Programme patients. Value must be between 0 and 7 (inclusive).
Assessments/Screening	
DM - Eye Screening	Select and enter date of assessment if done. If assessment is not done during the reporting period, you need not enter anything. If the exact date of assessment is not known, please key in the date as 0101(for DDMM). e.g. for an assessment done in 2006 you can key in 01012006. If the known date is March 2006, you can enter as 01032006
IDM - Foot Screening	
DM - Nephropathy Screening	
Stroke - Thromboembolism Risk Assessment	
Inhaler Technique Assessment (Asthma & COPD only)	
Influenza Vaccination Assessment (COPD only)	
Fasting Lipids Blood Test Fasting Glucose Blood Test (Only for CDMP Mental Illness Programme - Schizophrenia Patients on Atypical Antipsychotics)	
Consultation for CDMP Mental Health (Only for CDMP Mental Illness Programme Patients)	

Click to sort the records

Date	Indicators	Value
<input type="checkbox"/> 11-May-2007	Systolic BP(mmHg)	150
<input type="checkbox"/> 11-May-2007	Diastolic BP(mmHg)	100
<input type="checkbox"/> 11-May-2007	LDL(mg/dL)	40
<input type="checkbox"/> 11-May-2007	HbA1c(%)	30
<input type="checkbox"/> 11-May-2007	Weight(kg)	90
<input type="checkbox"/> 11-May-2007	Cigarettes smoked per day(Avg)	10
<input type="checkbox"/> 11-May-2007	DM-Eye Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Nephropathy Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Foot Assessment	Y
<input type="checkbox"/> 11-May-2007	Stroke-Thromboembolism Risk Assessment	Y

Delete Indicators *Click to delete selected clinical indicators*

Delete after selecting the checkboxes of the unwanted Clinical Indicators

All entries saved in the table will be submitted to the CIDC system

Screen 8 – Clinical and Assessment Indicators

- 6.7 After saving the data, you can use the delete button to remove any mistakes.
- 6.8 By default, the data displayed is sorted by date of visit and indicators. You can also click on the “Indicators” and “Date” headers to sort the data according to your preference.

7 Attending Physician Information

- 7.1 This section details the physician attending to the patient. It is required for each submission.
- 7.2 If there is more than one physician attending to the patient, the main physician information should be entered here.

Attending Physician Information:

Doctor Name:*

Specialty/Training:

Role:*
☒ Attending Doctor is the patient's regular primary physician
☐ The Clinic is the patient's regular primary provider
☐ None of the Above

Registration Number:*

Healthcare Establishment:

Date of Submission: 06-Jan-2008

* denotes a mandatory field

Screen 9 – Physician Information

	Data Item	Remarks
1.	Doctor Name	Full Name of Doctor
2.	Registration Number	The Doctor's MCR Number
3.	Speciality/Training	Select the appropriate value from the drop down list if applicable.
4.	Healthcare Establishment	The Healthcare Establishment which is making the submission. It is tied to the user ID of the person making the submission and is defaulted based on the user's ID establishment.
5.	Role	Indicate the role applicable
6.	Name of Primary Physician	Only applicable when "None of the Above" is selected

8 Report Submission

8.1 Once you have completed the data entry, you can submit the report to MOH by clicking on the [Submit] button.

8.2 If you are not yet ready to submit, you can click on the [Save Draft] button and retrieve the report later from the search function for submission.



The Table below describes the function for each button:

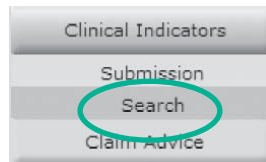
Button	Function Description
Submit	Submits the form after completion. Deletes any existing drafts saved previously.
Save Draft	Saves the unfinished form inputs as a draft for completion in the future.
Close	Closes the current form and returns to the main menu.

9 Search Clinical Indicator Reports

9.1 After you have submitted a report or created a draft, you can retrieve the reports at a later stage using the search function. This function allows you to specify search criteria and retrieve all reports matching the criteria.

9.2 After retrieving the report, you can also proceed to “Amend” it if there was any mistake in the previous submission, or delete it altogether.

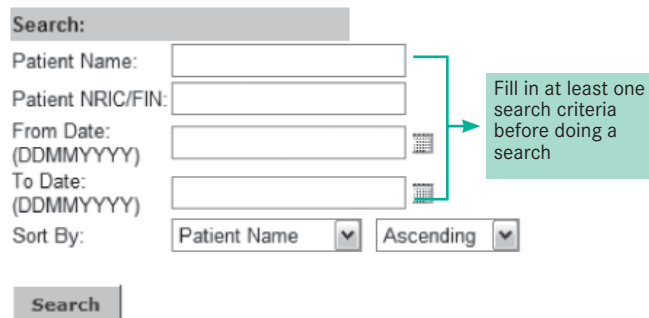
9.3 To access this function, click on the “Search” sub-menu under the “Clinical Indicators” main menu as shown on Screen 10.



Screen 10 – Search Menu

9.4 The Search page will be shown. Enter your search criteria and click on the [Search] button. The search is case insensitive.


9.5 At least one of the search criteria must be entered before you can proceed with the search.






Search:

Patient Name:

Patient NRIC/FIN:

From Date: 

To Date: 

Sort By:  

Search

Fill in at least one search criteria before doing a search

Screen 11 – Search Criteria

	Criteria	Remarks
1.	Patient Name	All reports where the patient name matches are retrieved A partial name is allowed, e.g. if Mark is entered, reports for all patients with Mark in their names are retrieved.
2.	Patient NRIC/FIN	All reports where the patient NRIC matches are retrieved
3.	From Date	All reports submitted from this date (inclusive) are retrieved
4.	To Date	All reports submitted up to this date (inclusive) are retrieved
5.	Sort By	Specifies the sorting sequence for the results

9.6 All submissions made by your clinic which matches the criteria will be displayed as shown on Screen 12.

Search:

Patient Name:

Patient NRIC/FIN:

From Date: (DDMMYYYY)

To Date: (DDMMYYYY)

Sort By:

Search

3 records retrieved.

	Patient Name	Patient NRIC/FIN	Submission Date
<input type="checkbox"/>	Jean Pang		12-Dec-2006
<input type="checkbox"/>	Tang Mui Kiong		12-Dec-2006
<input type="checkbox"/>	Tang Mui Kiong		12-Dec-2006

Amend **Delete**

Amend selected record

Delete selected records

Screen 12 – Search Results

9.7 If the number of search results is too large, you can either specify more restrictive search criteria or use the page number to navigate through the results.

9.8 Click on the Patient Name hyperlink to view the report submitted.

9.9 When the [Amend] button is clicked, the selected record will be displayed in editable mode as shown on Screen 13.

Patient Details:

Patient Name: * Lee Yong Kun **Patient NRIC/FIN: *** S1234567D

Date of Birth (DDMMYYYY): 02121970 **Sex:** ☒ Male ☐ Female

Race: Chinese **Height (Metres):** 1.7
(use 9.99 if not measurable)

Current Smoker ☒ Yes ☐ No **1990** Year Started Smoking(YYYY)

** denotes a mandatory field*

Known Medical History:	
Medical Condition	Diagnosis Year
<input checked="" type="checkbox"/> Diabetes	2000 (YYYY)
<input type="checkbox"/> DM Retinopathy	(YYYY)
<input type="checkbox"/> DM Nephropathy	(YYYY)
<input type="checkbox"/> DM Foot Complications	(YYYY)
<input type="checkbox"/> Asthma	(YYYY)
<input type="checkbox"/> Major Depression	(YYYY)

Medical Condition	Diagnosis Year
<input type="checkbox"/> Hypertension	(YYYY)
<input checked="" type="checkbox"/> Lipid Disorder	1998 (YYYY)
<input checked="" type="checkbox"/> Cerebrovascular Accident (CVA)	1998 (YYYY)
<input type="checkbox"/> Coronary Heart Disease (CHD)	(YYYY)
<input type="checkbox"/> COPD	(YYYY)
<input type="checkbox"/> Schizophrenia	(YYYY)

Diabetes Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)
<input type="checkbox"/> Insulin	(YYYY)

Hypertension Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)

Lipid Disorder Treatment:

Treatment	Year Started
<input type="checkbox"/> Oral Medications	(YYYY)

Schizophrenia Treatment (Only for CDMP Mental Health Programme patients)

Treatment	Year Started
<input type="checkbox"/> Atypical Antipsychotics Prescribed	(YYYY)

Clinical Indicators:

Date of Visit (DDMMYYYY):* / /

Blood Pressure (Systolic/Diastolic): /

LDL-C: mg/dL

HbA1c (%):

Weight (kg): (use 999 if not measurable)

Smoking Assessment # : ☐

Cigarettes smoked per day (average) ## :

ACT Score (Asthma only):

DM - Eye Assessment: ☐

DM - Nephropathy Assessment: ☐

DM - Foot Assessment: ☐

Stroke - Thromboembolism Risk Assessment: ☐

Inhaler Technique Assessment (Asthma & COPD only): ☐

Influenza Vaccination Assessment (COPD only): ☐

Fasting Lipids Blood Test ###: ☐

Fasting Glucose Blood Test ###: ☐

Consultation for CDMP Mental Health (Indicates patient attendance): ☐

The following care components are only for CDMP Mental Health Programme patients:

CGI - Severity of Illness: ☐

CGI - Global Improvement: ☐

** denotes a mandatory field*

For current smokers, smoking cessation advice should be given; For non- or ex-smoker, please reinforce the benefits of not smoking cigarettes

Applicable to current smokers only

Only for patients on Atypical Antipsychotic Medication. To check the box if test done

Add Indicators Click to add clinical indicators (only those performed)

Date	Indicators	Value
<input type="checkbox"/> 11-May-2007	Systolic BP(mmHg)	150
<input type="checkbox"/> 11-May-2007	Diastolic BP(mmHg)	100
<input type="checkbox"/> 11-May-2007	LDL(mg/dL)	40
<input type="checkbox"/> 11-May-2007	HbA1c(%)	30
<input type="checkbox"/> 11-May-2007	Weight(kg)	90
<input type="checkbox"/> 11-May-2007	Cigarettes smoked per day(Avg)	10
<input type="checkbox"/> 11-May-2007	DM-Eye Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Nephropathy Assessment	Y
<input type="checkbox"/> 11-May-2007	DM-Foot Assessment	Y
<input type="checkbox"/> 11-May-2007	Stroke-Thromboembolism Risk Assessment	Y
Delete Indicators <i>Click to delete selected clinical indicators</i>		



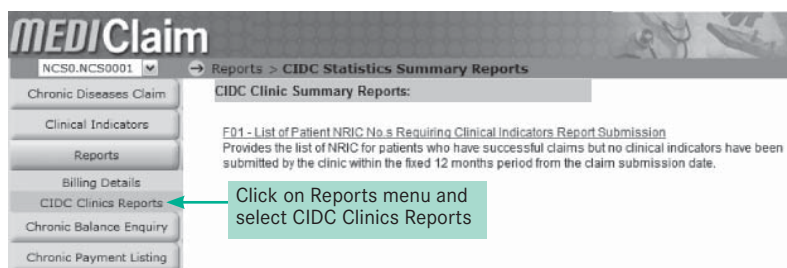
Screen 13 – Editable Page of Patient Record

Button	Action
Amend	Re-submits all the data in the report
Close	Closes the form

10 CIDC Clinic Reports

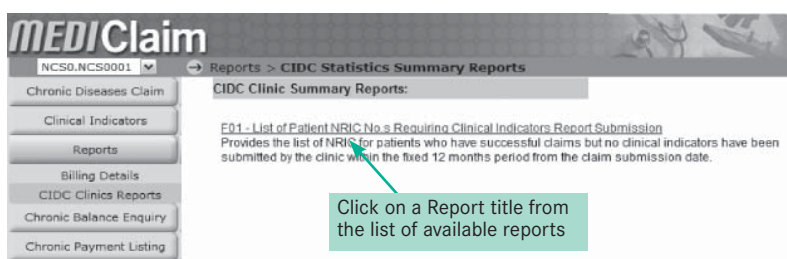
10.1 This function provides standard report(s) for use by clinics. One report is currently available and additional reports may be added in future releases.

10.2 To access this function, click on the CIDC Clinics Reports under the Reports menu button. A page displaying all the available reports and their description will be loaded.



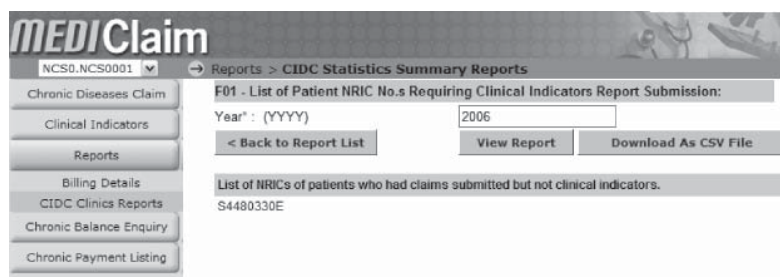
Screen 14 – CIDC Clinics Reports

- 10.3 List of NRICs for patients for whom Clinical Indicators have not been submitted
 - 10.3.1 This report enables the clinics to have a listing of all the patients' NRICs for whom the clinics had made claims in the specified year but no clinical indicator reports were submitted within a fixed period of 12 months from the claim submission date of each patient. This report is built in to assist doctors and clinics to keep track of the outstanding clinical indicator reports they would require to submit with each claim.
 - 10.3.2 Click on the report title from the list of available reports as shown on Screen 15. A report page with a textbox would appear for the user to key in the year of the requested report, as shown below.



Screen 15 – Selecting a Report

- 10.3.3 Upon entering a valid year, a list of patient NRIC numbers will be generated. The report generated below shows the record of a patient who had a claim submitted but with no submission of any clinical indicator.



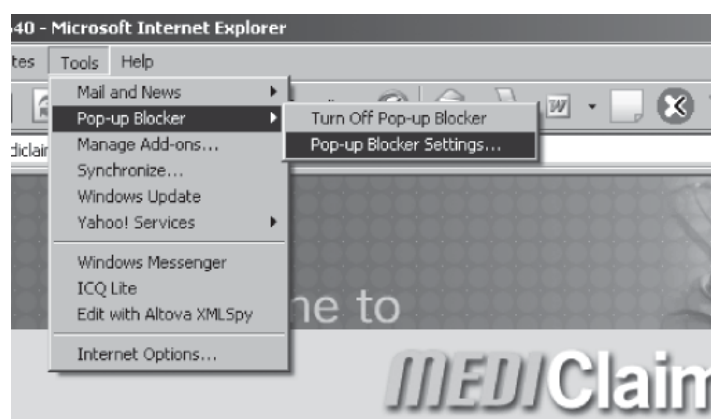
Screen 16 – Viewing a Report

11 Troubleshooting

11.1 Enabling of Pop Ups

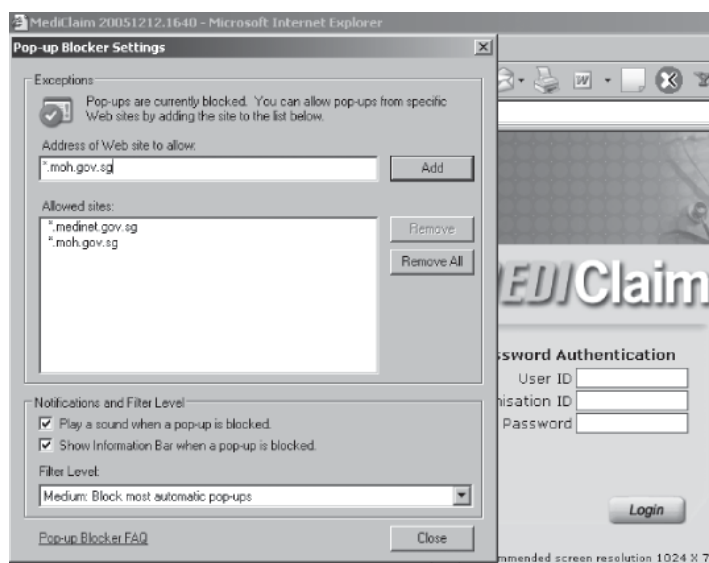
11.1.1 Certain screens within the application will be displayed as pop up windows. In order to access the full system functionality, you need to enable pop up windows for the MediClaim website. To enable this feature, follow the steps below:

- i. Select Tools>Pop-up Blocker> Pop-up Blocker Settings...



Screen 17 – Internet Explorer Menu

- ii. Enter “*.medinet.gov.sg” and “*.moh.gov.sg”, then click on Add.



Screen 18 – Configuring Pop-up Blocker

12 Fallback Procedures

- 12.1 In the event that the submission cannot be done online immediately, you can keep a record of the information and submit it at a later date.

13 Contact Information for Queries Related to Clinical Data Collection and Submission

- 13.1 For online e-service related technical queries, please e-mail to mediclaim@ncs.com.sg, or contact NCS at: 6776 9330 (Mon - Fri, excluding public holidays, 8:30 am to 6:00 pm).
- 13.2 For clinical data collection and submission issues related feedback, please email to moh_cds@moh.gov.sg (preferred method), or contact at: 6325 1757 (Mon - Fri, excluding public holidays, 8:30 am to 6:00 pm).

CHAPTER SIX:

FREQUENTLY ASKED QUESTIONS

A. CLINICAL MATTERS:

For Doctors who have already registered into the Programme

Q1. Which chronic diseases are currently included under this Programme?

Diabetes Mellitus, Hypertension, Lipid disorders, Stroke, Asthma, COPD, Schizophrenia and Major Depression are currently included under this Programme.

Q2. I have a patient with Diabetes, Hyperlipidaemia and Asthma, which DMPs should I enrol him into?

Enrol him into both Diabetes AND Asthma DMPs. He will then be able to use Medisave to co-pay for the total bill for the treatment prescribed for all 3 conditions. However, the doctor will also need to submit outcome data based on the essential care components of diabetes and asthma. (Please refer to Chapter 3 for details.)

Q3. My patient has DM, however, he also has symptoms and signs of Hypothyroidism. Can I use his Medisave to co-pay the thyroid function test?

No. In this instance, thyroid function test was done to screen for an associated disease and not for monitoring of the primary condition or its complication. Hence, it is suggested that his bill be itemised so that the patient can use cash to pay for the thyroid function test and Medisave to co-pay the rest of the bill which is related to DM care components. (Please refer to Chapter 3)

Q4. Who decides on the stipulated clinical care component?

The clinical care components were drawn from the Clinical Practice Guidelines, with inputs from professional bodies, which include leading specialists in the respective fields and respected primary care physicians. They were also endorsed by the Clinical Advisory Committee.

Q5. What if the patient has symptoms suggestive of both COPD and Asthma. Which DMP should I enrol him into?

For patients whose signs and symptoms are not so distinct between the two conditions, spirometry or/and bronchodilator reversibility testing may be performed to help classify the patient into one of the two diagnoses or to differentiate these conditions from other diseases that may mimic its presentation.

It is important to try to classify the patient into the correct DMP as this will help to determine the management of the patient and also prevent any issues with respect to the Medisave claims.

(Please refer to the Clinical Practice Guidelines for more information on diagnosis and management of Asthma and COPD).

Q6. Can the patient use Medisave to pay for pulmonary rehabilitation?

Yes, if and only if

- a) the patient has been diagnosed to have COPD, AND
- b) It is clinically deemed to be beneficial for the patient.

B. REGISTRATION MATTERS

For Doctors & Clinics which wish to be registered into the Programme:

Q1. What are the requirements to be on the Programme?

Clinics that wish to participate in the Programme must agree to:

- a) Participate in a shared care or GP partnership programme with a Restructured Hospital
- b) Provide treatment to chronic disease patients through evidence-based DMPs. These DMPs will include MOH-recommended key treatment components.
- c) Treat patient medical information with confidentiality.
- d) Submit to MOH, with the informed consent of patient, data on patient care delivery on an annual basis or as specified by MOH, for the purpose of medical audits. Relevant aggregated performance data will be published to assist patients in making informed choices.
- e) Be accredited under the Medisave for CDMP.

- f) Be periodically reviewed and audited, both clinically and administratively. Any clinic/hospital that fails to satisfy the minimum standards of clinical performance set by MOH, will be asked to withdraw from the Programme. (see Chapter Two: Clinical Programme).

Q2. How do I register for the CDMP Programme?

Clinics who are already in the CDMP Programme need not re-register for the Programme.

For clinics who are not in the Programme, they must submit the following forms for registration:

- 5.2.5 E-Application for Clinics to Participate in the Medisave for Chronic Disease Management Programme (by MOH)
- 5.2.6 Direct Authorisation Credit Form (by CPF Board)
- 5.2.7 GIRO Form (MediClaim charges by NCS)
- 5.2.8 GIRO Form (Medisave charges by CPF Board)

The E-Application website can be accessed via <http://www.moh.gov.sg/mmae/overview.aspx>

Clinics participating in the Programme will also have to sign a Deed of Indemnity with the CPF Board.

Doctors need to be individually registered under the Programme in order to process Medisave claims for their patients. Doctors can do so by submitting the Application Form for Medical Professionals.

Q3. My clinic is already participating in CDMP. Can I make Medisave claims for my patient who is suffering from schizophrenia?

In addition to participating in CDMP, your clinic will also need to be participating in a shared care or GP partnership programme for psychiatric patients with a restructured hospital before Medisave claims for patients with psychiatric illnesses can be made. This is part of an additional quality assurance framework in place to ensure quality of care for patients.

Q4. How do I register for a shared care or partnership programme with a restructured hospital?

You may register via MOH's MMAE website (<http://www.moh.gov.sg/mmae/overview.aspx>) by selecting the "Chronic Disease Management Programme9CDMP) – Shared Care Programmes".

Q5. What will be the cost of registration and start-up?

Apart from computer hardware and Internet access subscription (which may already be in place), there is a one-time non-refundable cost of \$203.30 for the security token to access the Medisave claims system. This security token is required only when using the MediClaim e-service.

You or your staff will need to attend a half-day training session on Medisave claims process, guidelines on Medisave use and the use of the MediClaim system. This training session is free-of-charge.

Q6. How do patients sign up for the Programme?

To qualify, patients need to be certified by a doctor to suffer from at least one of the approved chronic diseases. The certification is made by the doctor when the patient fills out the Medisave Authorisation Form that allows the doctor to make Medisave claims on the patient's behalf.

C. MEDISAVE CLAIMS, REIMBURSEMENT, BILLING

For Doctors & Clinics that wish to be registered into the Programme:

Q1. In total, how much can patients claim from Medisave for chronic disease treatments?

Patients can claim up to \$300 per Medisave account per year for outpatient treatment of the approved chronic diseases, regardless of the number of diseases they might have.

Q2. Whose Medisave account(s) can a patient make use of, other than his own?

Patients can use their own Medisave account(s) and the account(s) of their immediate family members (i.e. parents, children, spouse). In addition, patients who are Singapore citizens or PRs can also use the Medisave accounts of their grandchildren. Claims can be made once the family member has signed the relevant Medisave Authorisation Form.

Q3. What will be the exact level of deductible and co-payment? Are the levels different for packages and individual visits?

There is a \$30 deductible and 15% co-payment of the bill balance for each claim that the patient has to pay in cash, regardless if the claim is for an individual visit or packaged treatment.

Q4. Who should submit Medisave claims?

Any of the permanent staff of a Medisave-accredited clinic who has attended the training sessions, i.e. doctors, nurses, counter staff, clinic managers etc, can submit the Medisave claims.

Q5. If the patient sees me for both a chronic disease and an acute illness at the same time, can the entire bill be claimed?

Medisave can only be used for treatment related to the eight chronic diseases listed, subject to a cap of \$300. If patient attendance is purely for an acute or unrelated condition, Medisave deduction is not allowed even though the patient may have the disease. Checks will be made during audits to ensure that claims are related to approved chronic conditions.

Q6. How does the annual cycle of the \$300 limit apply? Is it calculated based on the time that the patient first seeks treatment under the scheme?

The \$300 annual limit is reset at the start of each calendar year i.e. 1 Jan to 31 Dec.

Q7. Will Medisave use be allowed for purchasing equipment (e.g. blood pressure monitoring equipment, glucometer or strips, etc.)?

No. In line with existing Medisave guidelines, Medisave use does not cover equipment purchase, whether for chronic disease treatment or other uses.

Q8. How will I know if the patient has sufficient balance left for claims?

An enquiry function to check the withdrawal limit and overall account balance is available via the MediClaim e-service. Clinics may use this function to check the remaining balance of the Medisave account holder with his/ her consent.

Alternatively, you can request for the Medisave holders to show you a print-out or electronic statement of their current Medisave balance. They can obtain their current Medisave balance from the CPF Board's website (www.cpf.gov.sg) under My CPF Online Services - My Statement, by logging in with their SingPass. You may wish to ask your patients to bring along a copy of the Medisave balance of the Medisave payers if you do not have a computer terminal at your clinic.

Q9. If the Medisave balance is insufficient to cover the costs, can the patient top up the difference in cash?

Yes.

Q10. Can the bill be split among two or more accounts according to a given percentage?

Yes, a claim can be shared by a maximum of 10 Medisave accounts.

Q11. What is the cost of making Medisave claims?

The current cost is \$2.91 per transaction and has to be paid in cash. The cost is levied on the clinics and not the patients. However, some clinics may decide to pass on this cost to their patients.

Q12. Why is there a transaction cost of \$2.91?

The transaction cost consists of a \$2.44 charge from CPF Board for processing each Medisave account and a \$0.47 charge from NCS for use of the MediClaim system.

Q13. Can I transfer the cost per transaction (\$2.91) to the patient?

You may choose to do so. However, medical institutions deciding to charge out the operational transaction cost should list this item in the bill as an administrative cost or apply a similar generic description. This fee has to be paid in cash.

Q14. Will patients have to pay the full amount upfront and then be reimbursed or can they make partial payment based on estimated Medisave payout?

This decision will lie upon the individual clinics. However, clinics should explain to their patients on the mode of payment clearly so as to avoid any confusion or unhappiness.

Q15. Can I accumulate several bills to be submitted in a single claim for the whole year so as to decrease the cost per transaction?

Yes. The deductible and co-payment is based on a per claim basis. You will need to enter the visit date and bill details for each visit within the single claim.

Q16. How will refunds for Medisave withdrawals be handled (e.g. if a patient opts out of a package)?

The clinic will have to amend the approved Medisave claim through the MediClaim system to return the money back to the relevant Medisave accounts. CPF Board will liaise with the clinics to debit and credit the amounts accordingly. Medisave will have first claim on any refunds. As for the amount of cash co-payment collected previously (\$30 deductible and 15% co-payment on the bill balance), the clinic can refund the amount to the patient in cash.

Q17. If patients have signed up for the Programme, can they opt out of it at a later date? Do I need to refund the amount that he had paid up for a package?

Patients can opt out at a later date by informing the clinic from which he/she is receiving care. In terms of refund, it is a private arrangement between the provider and the patient. Patients should find out the provider's policy on refunds before signing up for packages. However, funds withdrawn from Medisave must be reimbursed to the Medisave accounts first.

Q18. Is Medisave withdrawal dependent on the patient having only one specific primary care provider?

No. Patients are encouraged to have continuity of care with one family physician but they are free to choose and switch providers. Hence, they can make Medisave claims at any Medisave-accredited clinic.

Q19. How will claims be made if a patient is referred to an unaccredited provider?

Medisave claims will not be allowed at an unaccredited clinic. However, the referring party can make arrangements to bill on behalf of his unaccredited partners. The referring party is expected to bear full responsibility for any such arrangements made.

Q20. How will the scheme apply to Permanent Residents and Foreigners?

Current Medisave rules apply. Patients can be Permanent Residents or Foreigners. As long as they have Medisave accounts or their immediate family members with Medisave accounts, they are eligible for the scheme.

Q21. How will the scheme apply to those who have employer medical benefits or an existing comprehensive insurance plan?

Claims can be made under employer plans. This also applies to pensioners. Employer medical benefits or an existing comprehensive insurance plan can be used to cover the cost of the deductible and co-payment. Any amount in excess of the employer medical benefits or the insurance plan can be paid using Medisave. Clinics will have to liaise directly with their partnering employers for payment under employer plans as per their current arrangements.

Q22. What is the process of making Medisave claims like? Will it involve a huge change in my clinic operations?

The process is as follows:

- 1) The clinic/doctor should explain the following to patients suffering from any of the approved chronic diseases and their immediate family member(s) whose Medisave account(s) is/are being used (if any):
 - the treatment components
 - the cost of treatment
 - estimated amount that can be claimed from Medisave
 - the out-of-pocket cash payment that the patient will need to make
 - the charging of transaction fees
- 2) When the patient and/or his/her immediate family member(s) have decided to use Medisave for the bill, each Medisave account holder who wishes to make use of his/her Medisave account need to sign a Medisave Authorisation Form (MAF) to authorise the CPF Board to deduct his/her Medisave savings for the treatment of the patient. The authorisation can be made on a per treatment basis or over a period of months. It then stands until revoked in writing. Clinic/Medical institution staff should witness the signing and verify the relationship(s) to the patient as stated in the MAF.
- 3) Clinics/Medical institutions can then submit the Medisave claims electronically to the CPF Board for processing via the MediClaim System.
- 4) Payment will be made daily to Medisave-accredited medical institutions via InterBank Giro (IBG) on the 3rd working day after the approval date of the Medisave claims.

Q23. Can GPs who are contracted by nursing homes to provide outpatient care for their residents help the ones suffering from one of the six listed chronic diseases make Medisave claims?

Yes, if the GP and his/her clinic are on the Programme. He/She can help the nursing home patients to make a Medisave claim for their outpatient chronic disease treatment(s) through his/her clinic.

D. DATA SUBMISSION, CLINICAL IMPROVEMENT AND AUDITS

Q1. Why is the patient's medical and treatment history required?

The data collected will provide a better profile of patients on CDMP. This information will be useful for fine-tuning for programme planning and management purposes.

Q2. Must the medical history be captured at each visit?

The items in the medical history data will only need to be captured once but should be updated as and when there are changes.

Q3. How do I record the actual year of diagnosis of patients with long standing chronic diseases?

The estimated year of diagnosis for the patient's chronic condition can be recorded if the exact year is not known.

Q4. Will data on all clinical parameters be required at every visit?

No. Only data on assessments or tests performed during the visit need to be captured.

Q5. Would I need to repeat HbA1c or LDL cholesterol if my patient is able to produce the results of a test done elsewhere?

You can submit the relevant details of your patient's test results that have been performed elsewhere instead of repeating the test. If you do so, please keep a copy of the record of the test results.

Q6. What if the patient is lost to follow up?

Please note it down in your clinical documentation. Alternatively, if you are using the web-based e-Service for data submission, you may also document the

information using the textbox available under the Patient Participation Module present on the navigation bar. If you are using CMS for data submission, please contact your CMS provider for more details on capturing of this type of information electronically.

Q8. What if the patient refuses certain tests?

Tests are performed, when indicated, as part of the proper management of the chronic disease. As such, the physician should inform the patient as to the rationale and provide other key information regarding these tests. If the patient refuses the tests, please note this response in the patient's clinic notes.

Q9. If I missed the previous deadline for submission of clinical data, do I still need to submit the data for that period?

Yes, you should still submit the relevant data for that period as well as the current data.

Q10. Which healthcare provider should submit clinical data if the patient makes Medisave claims at three different healthcare providers during one year?

It would be appropriate for each provider to collect relevant data for the care that has been provided, and to submit the data. If they are not able to make the submission, they should forward the data to the primary physician who is coordinating the care of the patient's chronic condition so that he/she may be updated and make the submission.

Q11. If a patient starts making Medisave claims from June onwards, must I submit clinical information captured before June?

You can capture the relevant clinical data of the patient. However, for the purpose of assessing the care process and outcome of the chronic condition, the period of one year (taken from the date when the patient first enrolled into the CDMP for the chronic condition) will be used.

Q12. My patient claimed Medisave for treatment of a chronic condition when he first consulted me on 5 Jan 2009, but paid cash for three subsequent visits (in Mar, Jul, Oct 2009) for the same chronic condition. Would I still need to submit clinical data for the latter three visits?

Yes, you should continue to submit the patient's clinical data on this chronic condition for one year from 5 Jan 09.

Q13. Can the clinical data submitted be shared by different healthcare providers within the same clinic / institution / cluster?

This will depend on the electronic Clinic Management System (if any) that is used by the healthcare institution.

Q14. If I have already fulfilled the number of care components for the chronic condition, do I still need to submit clinical data subsequently?

The care components are the essential aspects of medical care that are recommended for management of the chronic diseases. The data submission system allows you to submit more than the recommended number of care components.

Q15. Will clinical data submitted be shared with the providers?

The clinical data received will be used to monitor the success of the CDMP, and also to give feedback routinely to the registered clinics for quality improvement. The release of data back to the clinics had been effected in phases. Clinical data submitted had been routinely fed back to the clinic as the online CDMP outcome reports via the Mediclaim system from the first quarter 2008 onwards. In these reports, a clinic will be able to compare its performance against the aggregated local and national performance. Over time, each clinic will also be able to track its own performance trends.

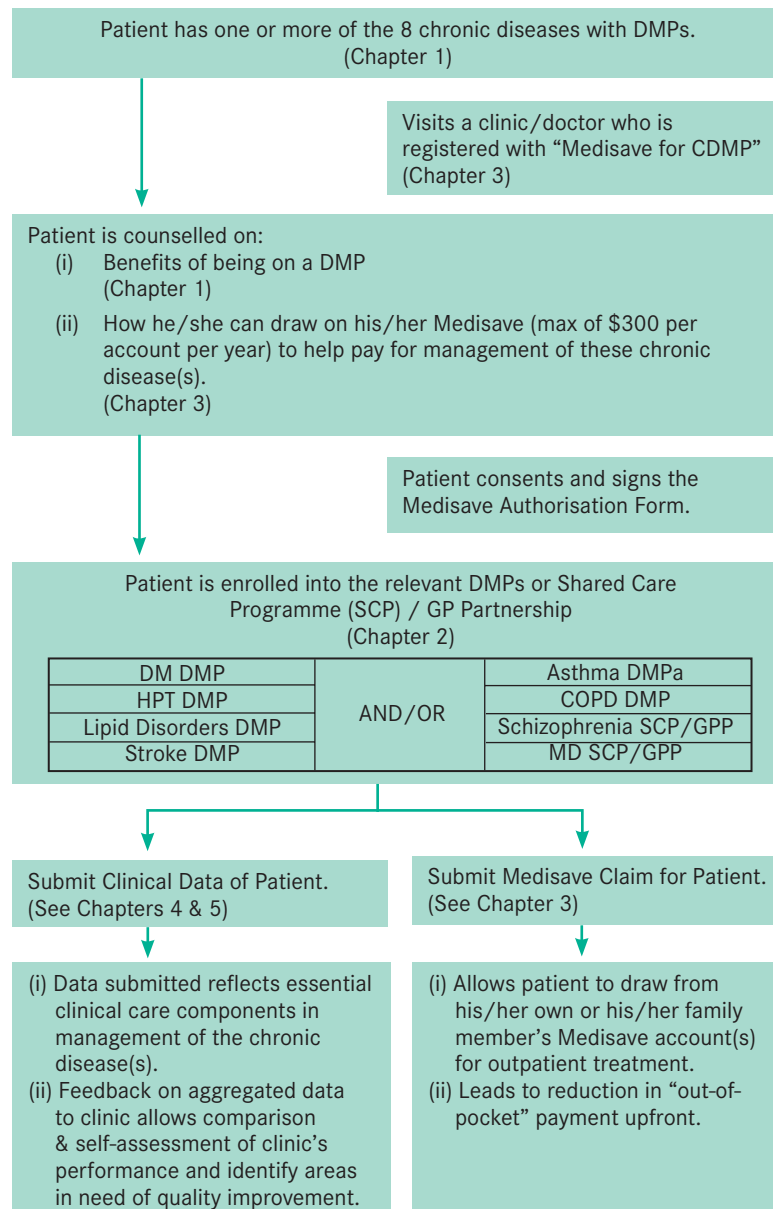
Q16. What will the clinical quality improvement process be like?

The clinical data that is monitored is useful for clinical quality improvement in the care of chronic conditions. When meaningfully used, it will empower patients to take charge of managing their chronic condition as guided and supervised by their family physician. This can improve compliance with the recommended care of the chronic condition(s) with better longer term outcomes.

Q17. What will the clinical audit process be like?

Periodic on-site audits will be carried out to ensure accuracy of clinical data submission and to ensure that minimum standards of performance are met. Due consideration will be given so that such audits do not disrupt clinic operations and patient care processes.

Summary of Use of Medisave for CDMP





Note





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June 2009