ABSTRACT
From 1 Nov 2011, Dementia 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. Together with Bipolar disorder to be added in, there will be a total of 10 chronic diseases that could use Medisave for chronic disease management. For new diagnosis of dementia or suspected cognitive impairment, when in doubt, it is advisable to consult or refer to a geriatrician/psychiatrist/neurologist for confirmation as these diagnoses carry long term medical and legal implication. Existing patients with dementia in the RHs or IMH are recommended to be assessed by geriatricians/psychiatrists/their primary care physician to be suitable for follow-up in the community by GP clinics or polyclinics, which are participating in Shared Care or GP Partnership Programmes. Clinics enrolled under the Medisave for CDMP are required to provide all the essential care components detailed in the DMP. The basis for diagnosis and management of dementia should conform to the prevailing MOH Clinical Practice Guidelines. There is a list of investigations, drugs and therapies for the evaluation and management of dementia for which Medisave use can be allowed. As part of the national effort under this Programme, the Health Promotion Board has prepared Patient Education Booklets for dementia. Participating medical institutions must monitor the quality of care that patients receive.

SFP2011; 37(3) (Supp 1) : 30-41

UPDATE ON USE OF MEDISAVE FOR CHRONIC DISEASE MANAGEMENT PROGRAMME (CDMP)
The use of Medisave for chronic disease management programme (CDMP) was implemented on 1 Oct 2006 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. Since 1 Oct 2009, CDMP was also extended to cover Schizophrenia and Major Depression.

Starting with just over 7000 patients in Oct 2006, the CDMP has grown and as of Dec 2010, there are about 112,000 patients in this Programme, with an annual Medisave withdrawal of about S$27 million in 2010.

CHONG MEI SIAN, Senior Consultant, Department of Geriatric Medicine, Tan Tock Seng Hospital

Submission of clinical data is an essential component of the Programme. Participating clinics are required to monitor the quality of care that patients receive and submit clinical data to the Ministry of Health (MOH). To facilitate quality improvement, the clinical data submitted had been routinely fed back to the clinic via the online CDMP outcome reports through the Mediclaim system since 2008.

INCLUSION OF DEMENTIA INTO CDMP
From 1 Nov 2011, Dementia 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.

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. With the implementation of the CDMP for Dementia, GPs will be able to take on a greater role in the management of chronic diseases of their patients.

TREATMENT ALGORITHM FOR DEMENTIA
For new diagnosis of dementia or suspected cognitive impairment, when in doubt, it is advisable to consult or refer to a geriatrician/psychiatrist/neurologist for confirmation as these diagnoses carry long term medical and legal implication.

Patients who are already enrolled under the existing DMPs (i.e. Diabetes Mellitus, Hypertension, Lipid Disorders, Stroke, Asthma or COPD, Schizophrenia and/or Major Depression) but who also suffer from dementia, should, in addition, be enrolled into the programme. See Figure 1.

Patients who are assessed to be suitable for community follow-up will be able to use Medisave to pay for management of all these ten chronic diseases (existing rules and regulations for Medisave claims apply). Clinical outcomes will be tracked for all the DMPs that the patient has been enrolled into.

Existing patients with dementia in the restructured hospitals (RHs) or Institute of Mental Health (IMH) are recommended to be assessed by geriatricians/psychiatrists/their primary care physician to be suitable for follow-up in the community by GP clinics or polyclinics, which are participating in Shared Care or GP Partnership Programmes.

ESSENTIAL CARE COMPONENTS FOR DEMENTIA FOLLOW-UP MANAGEMENT IN DEMENTIA DISEASE MANAGEMENT PROGRAMME
Clinics enrolled under the Medisave for CDMP are required to provide all the essential care components detailed in the DMP. The basis for diagnosis and management of dementia should
**Figure 1. ENROLLING PATIENTS WITH MULTIPLE CHRONIC DISEASES**


Patient with multiple chronic diseases may be enrolled into (1) and/or (2) and/or (3) and/or (4):

1. **DM?**
   - no
   - yes

2. **HPT?**
   - no
   - yes

3. **HL?**
   - no
   - yes

4. **Stroke DMP**

**CHRONIC DISEASE MANAGEMENT PROGRAMME FOR DEMENTIA**

- **Assessment of cognition**
- **Assessment of complications** - behavioural, functional, social
- **Diagnosis of dementia and aetiology**
- **Counselling and education, including Advanced Care Planning to caregivers and patient (where appropriate)**
- **Referral to appropriate community services**
- **Management of complications of dementia** Discussion and initiation of cognitive enhancers where appropriate

**Figure 2. TREATMENT ALGORITHM FOR DEMENTIA**

Clear documentation on evaluation of cognition, mood and behaviour using subjective and objective approach.

Documentation of advice on non-pharmacological intervention prior to institution of pharmacologic agents. Clear documentation in those started on pharmacologic agents after careful consideration of benefits, adverse effects and co-morbidities.

Documentation of newly diagnosed dementia patients having received appropriate counselling and education.

Documentation of newly diagnosed dementia patients with care needs being considered for referral to appropriate community services.

Documentation of discussion with patient and/or caregivers before starting on cognitive enhancers after careful consideration of expected magnitude of benefit, side effects, co-morbidities and costs of treatment.
conform to the prevailing MOH Clinical Practice Guidelines. Shared Care Programmes or GP partnership programme with an RH must provide the essential care components for the continuing evaluation and management of dementia and bipolar disorder as set out in the Tables 2.1 and 2.2.

The care components in each DMP are recommended by the Clinical Advisory Committee appointed by MOH. These care components are recommended based on current available medical evidence.

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.

Figure 2 shows the treatment algorithm for dementia. Details regarding each of the essential care components can also be found in the MOH Clinical Practice Guidelines, available at http://www.moh.gov.sg/mohcorp/publications.aspx?id=16266.

Medisave can also be used for doctor follow-up, nurse follow-up evaluation, physiotherapy, occupational therapy, speech therapy, home visit evaluation as clinically indicated and ordered by the attending doctor but not for home meal delivery, transport or other non-medical aspects of care.

PATIENT EDUCATION AND MONITORING
As part of the national effort under this Programme, the Health Promotion Board has prepared Patient Education Booklets for dementia.

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.

It will be useful to explain the contents of the patient education booklet to the caregiver and patient (if appropriate) as this will help enhance the doctor-patient relationship.

GUIDELINES FOR CONTINUING CARE
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:

Referral from Specialist to Primary Care
- Suitable patients must be assessed by specialist to be stable and suitable for community follow-up.
- They should have a clear diagnosis of dementia.
- The caregivers should have been counselled on their condition, natural history and progression of illness.
- The patients should not have significant behavioural issues or significant caregiver stress. If they have behavioural issues, these should be stable before transfer to their primary care physician.

- If prescribed antidepressant and/or antipsychotic agents, the patients should be on stable doses of these medications for at least 3 months.

Referral from Primary Care to Specialist
- GPs should refer for specialist’s review, patients in whom diagnosis of dementia is uncertain. GPs should also refer for specialist’s review, complicated cases of bipolar disorder such as co-morbidities, pregnancy, patients 19 years or younger or other complications which in the family physician’s opinion would require specialist opinion.
- Patients who, under special circumstances, require specialist opinion for medication titration for their condition (i.e. side effects or complications from conventional medication).

Clinical Indicators for Dementia
Participating medical institutions must monitor the quality of care that patients receive. The following are for management of dementia patients after establishing diagnosis:

a) Documentation in follow-up of dementia patients
- Documentation of assessment of memory.
- Documentation of assessment of mood and behaviour.
- Documentation of assessment of functional and social difficulties (if any).
- Documentation of assessment of rehabilitation needs.

b) Consultation for CDMP Dementia

c) For patients on cognitive enhancers, objective documentation of memory assessment must be performed, by way of a bedside cognitive screening instrument (such as the Mini-Mental State Examination (MMSE) or Chinese Mini Mental State Examination (CMMSE)).

d) Blood test for sodium and liver function tests (only for patients on SSRIs or mood stabilisers).

e) Full blood count (for patients on mood stabilisers or considered anti-platelet therapy).

f) Clinical parameters (HR/BP) (especially for patients on cholinesterase inhibitors and antidepressants or antipsychotic medication).

g) Physical examination of extrapyramidal side effects (for patients on antipsychotics).

h) Electrocardiogram (especially for patients being considered for or on cholinesterase inhibitor. Also for patients on antipsychotics).
For those patients with stroke and dementia:
- **Documentation of thromboembolism risk assessment.**
- Clinical evaluation including atrial fibrillation, cardiac murmurs and need for anti-thrombotic therapy.
- Documentation of rehabilitation need assessment.

The Clinical Practice Guidelines detail the good clinical practices required in dementia evaluation and management. The documentation of the important care component process in dementia evaluation and dementia management is captured in the first two clinical parameters to indicate good clinical dementia care.

As following up patients to detect complications early and prevent the morbidity and mortality associated with complications is an important aspect of care for dementia patients, the Consultation for CDMP Dementia (at least twice per year) is a key care compliance indicator for the Programme.

For dementia patients who are prescribed antidepressants or antipsychotic medications, biochemical tests should be performed at least once yearly.

For dementia patients who are prescribed cholinesterase inhibitors and antipsychotic agents, they should have clinical parameters taken during consultation visits and if there are concerns, electrocardiogram should be done. Recent evidence has shown association of cardiac rhythm abnormalities with cholinesterase inhibitor use.

Table 2.3 summarises the clinical indicators for patients with dementia required for submission via electronic channels to MOH:

### RECOMMENDED INVESTIGATIONS, DRUGS AND THERAPIES

Tables 2.1 to 2.3 lists the investigations, drugs and therapies for the evaluation and management of dementia disorder for which Medisave use can be allowed.

### REFERENCE FOR FURTHER READING

MOH. Chronic disease management programme handbook for healthcare professionals, 2011.

#### Table 2.1. ESSENTIAL CARE COMPONENTS FOR DEMENTIA FOLLOW-UP MANAGEMENT IN DEMENTIA DISEASE MANAGEMENT PROGRAMME

<table>
<thead>
<tr>
<th>Essential Component*</th>
<th>Minimum Recommended Frequency (per year)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Assessment of memory (if on cognitive enhancers to document MMSE/CMMSE scores)</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A2</td>
<td>Assessment of mood and behaviour</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A3</td>
<td>Assessment of social difficulties and caregiver stress</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A4</td>
<td>Functional needs assessment</td>
<td>As indicated</td>
</tr>
<tr>
<td>A5</td>
<td>Clinical parameters (HR/BP)</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A6</td>
<td>Blood test for sodium and liver function tests</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A7</td>
<td>Full Blood count</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A8</td>
<td>Physical examination for extra-pyramidal side-effects</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>A9</td>
<td>Electrocardiogram</td>
<td>As indicated</td>
</tr>
</tbody>
</table>

*The diagnosis of dementia needs to be already established

#### Table 2.2: ADDITIONAL CARE COMPONENTS FOR PATIENT WITH DEMENTIA AND STROKE

<table>
<thead>
<tr>
<th>Essential Component</th>
<th>Minimum Recommended Frequency (per year)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Thromboembolism Risk Assessment</td>
<td>Annually</td>
</tr>
<tr>
<td>S2</td>
<td>Rehabilitation need assessment</td>
<td>As clinically indicated</td>
</tr>
</tbody>
</table>
Table 2.3 CLINICAL INDICATORS FOR PATIENTS WITH DEMENTIA FOR SUBMISSION VIA ELECTRONIC CHANNELS TO MOH

<table>
<thead>
<tr>
<th>Clinical Indicator</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation of:</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>i. assessment of memory</td>
<td></td>
</tr>
<tr>
<td>ii. assessment of mood and behaviour</td>
<td></td>
</tr>
<tr>
<td>iii. assessment of functional and social difficulties (if any)</td>
<td></td>
</tr>
<tr>
<td>iv. assessment of rehabilitation needs</td>
<td></td>
</tr>
<tr>
<td>Consultation for CDMP Dementia</td>
<td>Twice yearly</td>
</tr>
<tr>
<td>For patients on cognitive enhancers, documentation of objective assessment of memory (MMSE or CMMSE testing or other validated instruments)</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
</tbody>
</table>

Table 2.4 – DOSING INFORMATION FOR DEMENTIA PATIENTS

<table>
<thead>
<tr>
<th>Drug class</th>
<th>Drug name</th>
<th>Examples of brand names</th>
<th>Usual adult starting dose</th>
<th>Usual adult dose range (per day)</th>
<th>Max. adult recomm. dose (per day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSRI</td>
<td>Escitalopram Lexapro®</td>
<td>5 – 10 mg/day</td>
<td>10 – 20 mg</td>
<td>20 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fluoxetine Prozac®</td>
<td>10 – 20 mg OM</td>
<td>20 – 60 mg</td>
<td>80 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fluvoxamine Faverin®</td>
<td>25 – 50 mg/day</td>
<td>50 – 300 mg</td>
<td>300 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paroxetine Seroxat CR®</td>
<td>10 – 12.5 mg/day</td>
<td>12.5 – 50 mg</td>
<td>75 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sertraline Zoloft®</td>
<td>25 – 50 mg/day</td>
<td>25 – 200 mg</td>
<td>200 mg</td>
<td></td>
</tr>
<tr>
<td>SNRI</td>
<td>Duloxetine Cymbalta®</td>
<td>30 – 60 mg/day</td>
<td>30 – 60 mg</td>
<td>120 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Venlafaxine Efexor XR®</td>
<td>75 mg/day</td>
<td>75 – 225 mg</td>
<td>225 mg</td>
<td></td>
</tr>
<tr>
<td>NASSA</td>
<td>Mirtazapine Remeron Soltab®</td>
<td>15 – 30 mg/day</td>
<td>15 – 45 mg</td>
<td>45 mg</td>
<td></td>
</tr>
<tr>
<td>RIMA</td>
<td>Moclobemide Aurorix®</td>
<td>150 mg/day</td>
<td>150 – 600 mg</td>
<td>600 mg</td>
<td></td>
</tr>
<tr>
<td>Cholinesterase Inhibitors</td>
<td>Donepezil Aricept®</td>
<td>2.5 – 5 mg once daily (Tablet: 5 mg, 10 mg)</td>
<td>5 – 10 mg</td>
<td>10 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rivastigmine Exelon®</td>
<td>1.5 mg bid after meals (Capsule: 1.5mg, 3mg, 4.5mg, 6 mg) Transferal patch (4.6mg/24 hours, 9.5mg/24 hour)</td>
<td>6 – 12 mg</td>
<td>4.6mg – 9.5mg (Transferal patch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Galantamine Reminyl®</td>
<td>8 mg once daily after meals (PR Capsule: 8mg, 16 mg and 24 mg)² Solution (4mg/ml: 100 ml bottle)³</td>
<td>16 – 24 mg</td>
<td>24 mg</td>
<td></td>
</tr>
<tr>
<td>NMDA Antagonists</td>
<td>Memantine Ebixa®</td>
<td>5 mg once daily (Tablet: 10 mg, Solution: 10 mg/g oral drops (10 drops = 5 mg))</td>
<td>20 mg/day (CCT &gt;60)</td>
<td>10 mg/day (CCT 40-60)</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>Bupropion Wellbutrin SR®</td>
<td>150 mg OM, increase to 150 mg BD on day 4 if well tolerated</td>
<td>150 – 300 mg</td>
<td>300 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tianeptine Stabilon®</td>
<td>25 – 50 mg/day in 2 – 4 divided doses</td>
<td>25 – 37.5 mg</td>
<td>50 mg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trazodone Tristico®</td>
<td>25 – 150 mg/day in divided doses</td>
<td>50 – 300 mg</td>
<td>600 mg</td>
<td></td>
</tr>
</tbody>
</table>

¹ PR: prolonged release once-a-day formulation. The immediate-release formulation has been phased out.
² Solution can be mixed with non-alcoholic beverage, but must be consumed immediately.
³ Creatinine clearance

Abbreviations:
- 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:  
Manufacturers’ Product Information

### Table 3.1: RECOMMENDED INVESTIGATIONS FOR PATIENTS RECEIVING SELECTED PHARMACOTHERAPY

<table>
<thead>
<tr>
<th>S/N</th>
<th>Investigation</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEMENTIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Full Blood Count</td>
<td>Patients on mood stabilisers. Patients for consideration or on antiplatelet agent</td>
</tr>
<tr>
<td>2</td>
<td>Renal Panel (U/E/Cr)</td>
<td>Patients on antidepressants or mood stabilisers</td>
</tr>
<tr>
<td>3</td>
<td>Liver Function Test</td>
<td>Patients on antidepressants, atypical antipsychotics, mood stabilisers</td>
</tr>
<tr>
<td>4</td>
<td>Electrocardiogram</td>
<td>Patients for consideration or on cholinesterase inhibitors and antipsychotics (both typical and atypical) and in whom there is concern with regards to cardiac rhythm abnormalities</td>
</tr>
</tbody>
</table>

### Table 3.2: LIST OF MEDISAVE CLAIMABLE DRUGS FOR TREATMENT OF PSYCHIATRIC CONDITIONS

<table>
<thead>
<tr>
<th>S/N</th>
<th>Drug</th>
<th>S/N</th>
<th>Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Amisulpride</td>
<td>24</td>
<td>Lithium*</td>
</tr>
<tr>
<td>2</td>
<td>Amitriptyline</td>
<td>25</td>
<td>Maprotiline</td>
</tr>
<tr>
<td>3</td>
<td>Aripiprazole</td>
<td>26</td>
<td>Memantine#</td>
</tr>
<tr>
<td>4</td>
<td>Benzhexol</td>
<td>27</td>
<td>Mirtazapine</td>
</tr>
<tr>
<td>5</td>
<td>Benzotrine</td>
<td>28</td>
<td>Moclubemide</td>
</tr>
<tr>
<td>6</td>
<td>Bupropion</td>
<td>29</td>
<td>Nortriptyline</td>
</tr>
<tr>
<td>7</td>
<td>Carbamazepine*</td>
<td>30</td>
<td>Olanzapine</td>
</tr>
<tr>
<td>8</td>
<td>Chlorpromazine</td>
<td>31</td>
<td>Paliperidone</td>
</tr>
<tr>
<td>9</td>
<td>Clozapine</td>
<td>32</td>
<td>Paroxetine</td>
</tr>
<tr>
<td>10</td>
<td>Donepezil</td>
<td>33</td>
<td>Perphenazine</td>
</tr>
<tr>
<td>11</td>
<td>Dothiepin</td>
<td>34</td>
<td>Quetiapine</td>
</tr>
<tr>
<td>12</td>
<td>Doxepin</td>
<td>35</td>
<td>Risperidone</td>
</tr>
<tr>
<td>13</td>
<td>Duloxetine</td>
<td>36</td>
<td>Rivastigmine #</td>
</tr>
<tr>
<td>14</td>
<td>Escitalopram</td>
<td>37</td>
<td>Sertraline</td>
</tr>
<tr>
<td>15</td>
<td>Fluoxetine</td>
<td>38</td>
<td>Sodium Valproate*</td>
</tr>
<tr>
<td>16</td>
<td>Fluoxetine</td>
<td>39</td>
<td>Sulpiride</td>
</tr>
<tr>
<td>17</td>
<td>Fluoxetine</td>
<td>40</td>
<td>Tianeptine</td>
</tr>
<tr>
<td>18</td>
<td>Fluphenazine</td>
<td>41</td>
<td>Trazadone</td>
</tr>
<tr>
<td>19</td>
<td>Fluvoxamine</td>
<td>42</td>
<td>Trifluoperazine</td>
</tr>
<tr>
<td>20</td>
<td>Galantamine#</td>
<td>43</td>
<td>Trimipramine</td>
</tr>
<tr>
<td>21</td>
<td>Haloperidol</td>
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<td>Venlafaxine</td>
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<tr>
<td>22</td>
<td>Imipramine</td>
<td>45</td>
<td>Ziprasidone</td>
</tr>
<tr>
<td>23</td>
<td>Lamotrigine</td>
<td>46</td>
<td>Zuclopenthixol</td>
</tr>
</tbody>
</table>

**Notes**:  
NB: The list will automatically include any other new psychiatric drugs (excluding benzodiazepams) that are approved by the Health Sciences Authority (HSA)  
*Mood stabilizers  
# Drugs which are specific for the treatment of dementia

### Table 3.3: LIST OF ALLOWABLE THERAPIES FOR TREATMENT OF PSYCHIATRIC CONDITIONS

- Psychological therapy in specific cases  
- Electro-convulsive therapy (ECT)  
- Occupational Therapy  
- Physiotherapy  
- Speech therapy

**CMMSSE scoring sheet**  
Attention (forward digit span): 4719 582036 (1) Intact (2) Impaired  

### ITEMS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>(6) CHMMSSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>What day of the week is it?</td>
<td>(1)</td>
</tr>
<tr>
<td>What is the date today?</td>
<td>(1)</td>
</tr>
<tr>
<td>What is the month?</td>
<td>(1)</td>
</tr>
<tr>
<td>What is the year?</td>
<td>(1)</td>
</tr>
<tr>
<td>Where are we now?</td>
<td>(1)</td>
</tr>
<tr>
<td>What floor are we now?</td>
<td>(1)</td>
</tr>
<tr>
<td>In which estate are we?</td>
<td>(1)</td>
</tr>
<tr>
<td>In which country are we?</td>
<td>(1)</td>
</tr>
<tr>
<td>* Repeat the following words: “Lemon, Key, Balloon”</td>
<td>(3)</td>
</tr>
<tr>
<td>Subtract $7 from $100 and make 5 subtractions</td>
<td>(5)</td>
</tr>
<tr>
<td>* Can you recall the three words?</td>
<td>(3)</td>
</tr>
<tr>
<td>What is this? (show a pencil)</td>
<td>(1)</td>
</tr>
<tr>
<td>What is this? (show a watch)</td>
<td>(1)</td>
</tr>
</tbody>
</table>
| Repeat the following:  
  a) “No ifs, ands or buts” (English)  
  b) “Forty-four stone lions” (Chinese) | (1) |
| Follow a 3-stage command:  
  a) “Take this piece of paper; fold it in half, and put it on the floor.” | (3) |
| Say a sentence of your choice | (1) |
| Read & obey what is written on this piece of paper: “Raise your hands” | (1) |
| Copy this drawing on a piece of paper | (1) |
| TOTAL SCORE | (28) |
LEARNING POINTS

- From 1 Nov 2011, Dementia 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.
- For new diagnosis of dementia or suspected cognitive impairment, when in doubt, it is advisable to consult or refer to a geriatrician/ psychiatrist/ neurologist for confirmation as these diagnoses carry long term medical and legal implication.
- Existing patients with dementia in the RHs or IMH are recommended to be assessed by geriatricians/ psychiatrists/their primary care physician to be suitable for follow-up in the community by GP clinics or polyclinics, which are participating in Shared Care or GP Partnership Programmes.
- Clinics enrolled under the Medisave for CDMP are required to provide all the essential care components detailed in the DMP.
- The basis for diagnosis and management of dementia should conform to the prevailing MOH Clinical Practice Guidelines.
- There is a list investigations, drugs and therapies for the evaluation and management of dementia for which Medisave use can be allowed.
- As part of the national effort under this Programme, the Health Promotion Board has prepared Patient Education Booklets for dementia.
- Participating medical institutions must monitor the quality of care that patients receive.
## MINI MENTAL STATE EXAM

**PEPERIKSAAN KEADAAN ROHANI MINI**

**Instructions:** Read the instructions for each item to the participant **word for word** as provided. Due to colloquial differences between the Chinese dialects, some minor deviations from verbatim instructions is acceptable only for Hokkien and Cantonese. However, examiners are recommended not to deviate overly from the provided instructions to avoid giving too much or too little information to the participants and potentially biasing their performance. For each of the 30 items, check the appropriate box (correct or incorrect) and record the subject’s verbatim response in the spaces provided.

### Orientation/Orientasi

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

1. **What is the year?**
   - 现在是哪一年？
   - Sekarang tahun apa?

2. **What is the month? (OK to accept Chinese calendar equivalents, but ask if subject knows Western calendar equivalent)**
   - 现在是几月？
   - Sekarang bulan apa?

3. **What is the date today?**
   - 今天几号？
   - Apakah tarikh hari ini?

4. **What day is today?**
   - 今天是星期几？
   - Hari ini hari apa?

5. **Without looking at your watch, what time is it?**
   - 不要看表，现在几点钟？
   - Jangan melihat jam; sekarang pukul berapa?

   - **Subject’s response**

   - **Current time**

6. **What area are we in?**
   - 我们在哪个地区？
   - Kita berada di kawasan mana?

7. **What building are we in now? If necessary, ask for name or block number of building.**
   - 我们现在在哪个建筑物？If necessary, this building is called what? Its number is? (Utara, selatan, timur, barat atau pertengahan)
   - Sekarang kita berada di bangunan apa? If necessary, tanyakan nama bangunan atau nombor blok.

8. **What floor are we on?**
   - 我们现在在几楼？
   - Sekarang kita berada di tingkat berapa?

9. **What country are we in?**
   - 我们现在在哪个国家？
   - Kita berada di negara apa?

10. **Which part of Singapore is this place (North, South, East, West or Central)?**
    - 这个地方在新加坡的哪个方向，东、南、西、北或中？
    - Di manakah kedudukan tempat ini di Singapura?
    - (Utara, selatan, timur, barat atau pertengahan)
Immediate Recall / 即时回忆 / Pengingatan Kembali Segera

"I'm going to name three objects. When I am through, I want you to repeat them."
"我要说三样东西的名称，当我讲完后，我要你再重复一遍，"
"Saya akan sebutkan tiga benda. Selepas ini, saya ingin anda ulanginya lagi."

The first repetition determines his/her score (0-3), but keep saying them until he/she can repeat all three, up to six trials.

Correct  Incorrect

11. Ball  Bola  柠檬
12. Flag  Bendera  锁匙
13. Tree  Pokok  气球

13a. Number of trials (Range = 1-6)

"Please remember them as I will ask you to repeat them again later on."
"请把他们记住因为过后我会要你重复一次。"
"Cuba mengingatinya kerana saya akan menyuruh anda sebutkan benda-benda itu sebentar lagi."

Attention / 注意力/ Perhatian

"Subtract 7 from 100 and keep on subtracting 7 from each answer until I tell you to stop. Tell me your answer for each subtraction."
"请从一百减去七，然后从所得到的数再减七，一直这样的计算下去。把每个答案都告诉我，直到我叫你为止。"
"Sila tolak 7 dari 100 dan terus menolak 7 dari setiap jawapan yang didapati sampai saya berhenti. Berikan jawapan setelah setiap tolakan."

Each answer must be independently compared to the prior answer to ensure that a single mistake is not unduly penalised.

Correct  Incorrect

14. 93  
15. 86  
16. 79  
17. 72  
18. 65  

**Delayed Recall / 延缓回忆 / Peringatan Kembali Perlambatan**

"Can you tell me the three objects that I asked you to remember earlier?"

"现在请告诉我，刚才我叫你记住的三样东西是什么？"

"Cuba namakan tiga benda yang saya suruh ingatkan tadi."

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19. Ball  Bola  檸檬</td>
</tr>
<tr>
<td></td>
<td>20. Flag  Bendera  銀匙</td>
</tr>
<tr>
<td></td>
<td>21. Tree  Pokok  氣球</td>
</tr>
</tbody>
</table>

**Language / 语文 / Bahasa**

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
</table>
|          | 22. Show the subject a wrist watch and ask "What is this?" If subject gives a function say, "Yes, but what is this called?" or "What is its name?"
|          | “这是什么？”，“是的，但是它叫什么？” 或 “它的名字是什么？”
|          | "Apakah ini?", "Ya, tetapi ia dipanggil apa?" or "Apakah nama nya?"
|          | 23. Repeat for pencil / 铅笔 / pensil. |
|          | 24. Say: "I will say this once only, please listen carefully and repeat after me: An apple a day keeps the doctor away."
|          | “现在我要说一句话，请听清楚后跟我重复一遍，我只能说一遍，所以好好地听这句话是： 一天一苹果，医生远离我。”
|          | "Saya akan menyatakan sekali sahaja, sila dengar baik-baik dan ikut apa yang saya cakap: marah, merah, murah."

Hold a piece of paper in front of subject, do not allow him/her to take it until all three commands are given and say "Listen carefully, take the paper in your right hand, fold it into half and put it on the floor."

"请听清楚，用你的右手拿着纸，把它折成一半后放在地板上。"

"Dengar baik-baik, ambil kertas dengan tangan kanan anda, lipatnya setengah dan letak di lantai."

<table>
<thead>
<tr>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25. Takes paper in right hand.</td>
</tr>
<tr>
<td></td>
<td>26. Folds paper in half.</td>
</tr>
<tr>
<td></td>
<td>27. Puts paper on floor</td>
</tr>
</tbody>
</table>
Correct  Incorrect

28. Present the piece of paper which reads 'Close your eyes' and say:
"Read this and do what it says"
"读这个，并按上面说的去做"
"Baca ini dan patuhil/lakukan apa yang tertulis"
Score correct only if the subject actually closes his/her eyes.

29. Say: "Say a complete sentence" The sentence must have a noun, a verb, and be meaningful. If needed, prompt the subject: "For example, say something about the weather" Write down the sentence provided.
"请讲一个完整的句子。", "比如，说一个关于天气的句子。"
"Sebutkan sebuah ayat lengkap", "Misalnya, bina sebuah ayat berkenaan cuaca."

Note down the sentence ________________________________

Construction / 塑造 / Pembangunan

30. Present the subject with the Construction Stimulus page.
Say, "Copy this design" / "照着纸上的图案来画" / "Cuba lukis gambar ini".

Do not allow erasure. The subject may request a second attempt. (Clearly label the first and second attempts.)

Correct  Incorrect

Languages/Dialects used ________________________________

Remarks: ________________________________

The subject is having the following problem(s) at the time of interview:

0. Mute
1. Cannot see
2. Paralysed
3. Illiterate
4. Tired
5. Cannot hear

Total Score:

Assessor: ________________________________
Close your eyes

關/闭上眼睛

關/闭上眼睛

Tutup Mata