ABSTRACT
The role of the primary care physician in providing primary psychiatry care is fast becoming defined for him by society. The World Health Organisation has already stated the concepts with the paradigm shift from mental disease to positive mental health. To play this role effectively, there is a need to recognise what needs to be done, the support that he will need, and what he can do best. These aspects are discussed in the context of bipolar disorder. Understanding that bipolar disorder is a life long disease that requires recognition, acute management and assessment of response, management during remission, management of recurrence and relapse is the important first step. Bipolar disorder mimics unipolar depression and hence the need to be vigilant. Unrecognised or inadequately managed, bipolar disorder has a high cost to the patient and society. The need for supporting care from family members and other caregivers also needs recognition and action by all the stakeholders. What the primary care physician can do best is the application of the principles of primary, personal, preventive, comprehensive, continuing, and co-ordinated care to the patient, family, and community in the total management of this condition. In Singapore, there are now 4 mental health conditions in MOH's chronic disease management programme where the patient and children's Medisave accounts can be tapped to help provide a part the money needed, and Bipolar Disorder is one of them. The primary care physician has also an administrative role to help the patient make Medisave claims.

Key words: Primary care psychiatry, Liaison psychiatry concept, chronic disease management programme

INTRODUCTION
Mental health, long neglected by societies around the world and the medical community has now come to the forefront in recent years as we begin to acknowledge the plight of many sufferers of mental ill-health. As much as 16.6% of our Singapore population were found to have some form of mental ill-health at some time of their lives.

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The local survey of 543 GPs from 477 clinics on the apprehensions and views of our primary care doctors provided useful information on the state of primary care psychiatry in Singapore. Over 90% of the GPs who were managing patients with mental illness felt that these patients were more comfortable receiving treatment from them than from a psychiatrist because of their confidence and familiarity with the GPs who provided accessible, affordable and less stigmatizing care. Serious mental illness like schizophrenia and addictions were regarded as the most difficult psychiatric conditions to manage in a GP setting. Lack of adequate time and support from ancillary healthcare professionals, and need for training in the special medical needs of patients with more serious mental illness were perceived as key challenges in managing patients with mental illness in general practice.

APPLYING THE LIAISON PSYCHIATRY CONCEPT
To play this primary care psychiatry role effectively, there is a need to recognise what needs to be done, the support that the primary care physician will need, and what he/she can do best.

In this context, a paper by Blashki et al on how to make the liaison psychiatry concept work is worth reading. There are three principles that the authors said were important – the need for succinct helpful patient information from the psychiatrist to the receiving primary care doctor; the availability of the referring psychiatrist for a hotline contact if the primary care physician needs advice and help; and building clinical support resources from website materials to patient education notes, to courses.

In the context of bipolar disorder, understanding that it is a life long disease that requires recognition, acute management and assessment of response, management during remission, management of recurrence and relapse. Bipolar disorder mimics unipolar depression and hence the need to be vigilant. Unrecognised or inadequately managed, bipolar disorder has a high cost to the patient and society.

The need for supporting care from family members and other caregivers also needs recognition and action by all the stakeholders. What the primary care physician can do best is the application of the principles of primary, personal, preventive, comprehensive, continuing, and co-ordinated care to the patient, family, and community in the total management of this condition.

TREATMENT ALGORITHM FOR BIPOLAR DISORDER
Bipolar disorder joins Depression, Schizophrenia, and Dementia as the fourth mental health conditions in MOH's Chronic Disease Management Programme (CDMP). The treatment algorithm for bipolar disorder is given in Figure 1.
**PATIENT EDUCATION AND MONITORING**

**Patient education**

Health Promotion Board has prepared patient education booklets on bipolar disorder for distribution 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 for the primary care physician to explain the contents of this patient education booklet to the caregiver and patient so that they are familiar with the implementation of the bipolar disorder chronic disease management programme.

MOH has developed the following guidelines for the referral of patients with bipolar disorder from specialist to primary care and vice versa.

**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 bipolar disorder.
- Their caregivers should have been counselled on the patients’ condition and the need for continual treatment.
- The last mood episode of the patients referred should have been more than three months ago.
- If prescribed antidepressant and/or antipsychotic agents, the patients should be on stable doses of medications for at least 3 months.

**Referral from Primary Care to Specialist**

GPs should refer for specialist’s review the following categories of patients:

- Patients in whom diagnosis is uncertain, or cases of bipolar disorder with co-morbidities, pregnancy, are 19 years or younger or those with other complications where in the family physician’s opinion specialist opinion is required.
- Patients who, under special circumstances, require specialist opinion for medication titration for their condition (i.e. side effects or complications from conventional medication).
- Patients who are relapsing.

**GUIDELINES FOR CONTINUING CARE**

Table 1 shows the essential care components for bipolar disorder follow-up management in Bipolar Disorder Disease Management Programme.

**CLINICAL INDICATORS FOR BIPOLAR DISORDER**

The Clinical Practice Guidelines on Bipolar disorder details the good clinical practices required in the evaluation and management of this condition. Participating medical institutions must monitor the quality of care that patients receive. The following are clinical indicators for management of bipolar disorder patients after establishing diagnosis:

2. Consultation for CDMP Mental Health.
3. Blood test for fasting lipids and fasting blood glucose (only for patients on atypical antipsychotic medication).

Table 2 summarises the clinical indicators for patients with bipolar disorder required for submission electronically to MOH.

<table>
<thead>
<tr>
<th>Clinical Indicator</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Global Impression (CGI) Scale</td>
<td>At least once yearly or as clinically indicated</td>
</tr>
<tr>
<td>Consultation for CDMP Bipolar disorder</td>
<td>Twice yearly or as clinically indicated</td>
</tr>
</tbody>
</table>

**Figure 1: Treatment algorithm for bipolar disorder**

- Assessment of mood state and previous mood episodes
- Assessment of co-morbidities
- Diagnosis and acute phase
- Treatment of bipolar disorder
- Psychoeducation to caregivers and patient
- Maintenance phase treatment and monitoring
- Referral to appropriate community services
(1) Clinical Global Impression (CGI) Scale
This is a 2-item scale (each item has 7 points) scale to indicate the severity and improvement of the mental condition. The scale is shown in Table 3.

Table 3. 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

(2) Consultation for CDMP Mental Health
The consultation frequency for the CDMP Mental Health programme is at least twice per year. This is a key care compliance indicator.

(3) Blood test for fasting lipids and fasting glucose for patients on atypical antipsychotic medication.
For patients with bipolar disorder who are prescribed atypical antipsychotic medications, a blood test for fasting lipids and fasting glucose needs to be performed at least once yearly. This is to detect the possible development of metabolic syndrome which is a known complication of treatment with atypical antipsychotics.

RECOMMENDED INVESTIGATIONS FOR PATIENTS RECEIVING SELECTED PHARMACOTHERAPY
If the patient is on atypical antipsychotic medication, e.g. olanzapine, there is a need to monitor for the onset of metabolic syndrome with the following investigations:
• Fasting lipids.
• Fasting blood glucose.

USE OF MEDISAVE IN RELATION TO BIPOLAR DISORDER
Medisave claims. Medisave claims will be accepted only if the patient is diagnosed to have one or more of the chronic diseases in MOH’s CDMP Programme. The patient has been enrolled into their respective Disease management programme (DMP). 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.

Documentation. The doctor in-charge must clearly document this causal relationship or link between the disease and its treatment. In this regard,

Non-allowable claims. Medisave claims will generally not be allowed for sleeping pills, slimming pills or erectile dysfunction drugs used for lifestyle purposes. Under certain equivocal circumstances, the auditors will seek further clarification with the prescribing doctor.

Accreditation requirements. Only doctors and clinics / medical institutions which are Medisave accredited and participating in Programme can make Medisave claims for patients. For bipolar disorder (and dementia), 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.

Certification. 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.

What is claimable. Table 4 provides a guideline on Medisave claimable items. The doctor is expected to exercise clinical judgment and discretion when making claims.

<table>
<thead>
<tr>
<th>Table 4. Medisave claimable items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of the patient based on the care components in the respective Disease Management Programme (DMP)</td>
</tr>
<tr>
<td>Medical consultations primarily for the approved chronic conditions under the Programme.</td>
</tr>
<tr>
<td>Relevant investigations (including laboratory and radiological) for the evaluation of the disease or its complications.</td>
</tr>
<tr>
<td>Prescribed drugs and nursing care for the management of the approved conditions or their complications.</td>
</tr>
<tr>
<td>Physiotherapy, occupational and speech therapy for the rehabilitation of the patient.</td>
</tr>
</tbody>
</table>

Investigations, drugs, and therapies claimable for bipolar disorder. Tables 5A, 5B, and 5C list the investigations, drugs and therapies for the evaluation and management of bipolar disorder respectively for which Medisave use can be allowed.
Table 5A. Recommended investigations claimable for bipolar disorder

<table>
<thead>
<tr>
<th>S/N</th>
<th>Investigation</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Full Blood Count</td>
<td>Patients on most mood stabilisers at baseline and yearly for carbamazepine</td>
</tr>
<tr>
<td>2</td>
<td>Renal Panel (U/E/Cr)</td>
<td>Patients on all antidepressants, carbamazepine and lithium</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>Thyroid function (TFTs)</td>
<td>Patients on lithium</td>
</tr>
<tr>
<td>5</td>
<td>Fasting lipids and glucose</td>
<td>Patients on atypical antipsychotics and those at risk of metabolic syndrome.</td>
</tr>
<tr>
<td>6</td>
<td>Serum levels</td>
<td>Patients on Lithium, Carbamazepine and Sodium Valproate</td>
</tr>
</tbody>
</table>

Table 5B. 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>Mirtazepine</td>
</tr>
<tr>
<td>5</td>
<td>Benzotropine</td>
<td>28</td>
<td>Moclobemide</td>
</tr>
<tr>
<td>6</td>
<td>Bupropion</td>
<td>29</td>
<td>Nor-triptiline</td>
</tr>
<tr>
<td>7</td>
<td>Carbamazepine*</td>
<td>30</td>
<td>Otanepine</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>Clopimidine</td>
<td>33</td>
<td>Perphenazine</td>
</tr>
<tr>
<td>11</td>
<td>Donepezil</td>
<td>34</td>
<td>Quetiapine</td>
</tr>
<tr>
<td>12</td>
<td>Dothiepin</td>
<td>35</td>
<td>Risperidone</td>
</tr>
<tr>
<td>13</td>
<td>Doxepin</td>
<td>36</td>
<td>Rivastigmine#</td>
</tr>
<tr>
<td>14</td>
<td>Duloxetine</td>
<td>37</td>
<td>Sertraline</td>
</tr>
<tr>
<td>15</td>
<td>Escitalopram</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>Trazodone</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>
<td>44</td>
<td>Venlafaxine</td>
</tr>
<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>

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

Table 5C. List of Medisave Claimable Therapies and Examples of Non-claimable therapies for treatment of psychiatric conditions

<table>
<thead>
<tr>
<th>List of claimable therapies for treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological therapy in specific cases</td>
</tr>
<tr>
<td>Electro-convulsive therapy (ECT)</td>
</tr>
<tr>
<td>Occupational Therapy</td>
</tr>
<tr>
<td>Physiotherapy</td>
</tr>
<tr>
<td>Speech therapy</td>
</tr>
</tbody>
</table>

Examples of non-claimable therapies

- Conditions not related to the approved chronic diseases (e.g. cancer).
- Tests prior to diagnosis of disease (e.g. OGTT, CT brain, drug screen), or unrelated to the conditions (e.g. Pap smear, fertility treatments).
- Purchase or rental of nebulisers, wheelchair, prosthesis or other home nursing equipment.
- Employment of caregiver or nursing aides.
- Co-morbid conditions such as treatment for drug and alcohol abuse
- Alternative medicine (e.g. acupuncture)
- Novel treatments (e.g. tTMS)
- Drugs and therapies not explicitly listed as Medisave-approved for treatment of dementia (or combination of stroke and dementia) and bipolar disorder.

Definition of immediate family members for Medisave payment of outpatient treatments.

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.

SUBMISSION OF CLINICAL DATA

Data to be entered once only for first visit for bipolar disorder CDMP. For patients who are enrolled in the Bipolar Disorder Chronic Disease Management Programme (CDMP), data collection will commence at the patient’s first visit to the doctor for the chronic condition. The clinical data fields required for the new chronic disease condition Bipolar Disorder, are shown in table 6 below.

Table 6. Data to be entered once only (excluding updates) for bipolar disorder

<table>
<thead>
<tr>
<th>NRIC / FIN:</th>
<th>DOB (DD/MM/YYYY):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender: Male ( ), Female ( )</td>
<td></td>
</tr>
</tbody>
</table>

Data to be entered once a year | Data to be entered once every 6 months

Clinical Global Impression (CGI) Scale:
- a) Severity: Numerical value from 1-7
- b) Improvement: Numerical value from 0-7
  Consultation for CDMP Mental Health
Quality of care components. The quality of patient care for the chronic conditions will be evaluated according to whether the relevant process and care components have been met as listed below:

Table 7. Quality of care components

<table>
<thead>
<tr>
<th>Chronic Condition(s)</th>
<th>Care Components Per Year</th>
</tr>
</thead>
</table>
| Diabetes Mellitus    | • 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         | • Two blood pressure measurements  
                       • One bodyweight measurement  
                       • One smoking habit assessment |
| Lipid Disorders      | • One serum cholesterol level (LDL-C) test  
                       • One smoking habit assessment |
| Stroke               | • Two blood pressure measurements  
                       • One serum cholesterol level (LDL-C) test  
                       • One smoking habit assessment  
                       • One clinical thromboembolism risk assessment |
| Asthma               | • One inhaler technique assessment  
                       • One smoking habit assessment  
                       • Two Asthma Control Test (ACT) scores |
| COPD                 | • One inhaler technique assessment  
                       • One smoking habit assessment  
                       • One bodyweight measurement  
                       • One influenza vaccination |
| Schizophrenia        | • One Clinical Global Impression (CGI) Scale for each item (severity, improvement)  
                       • Two consultations for CDMP Mental Health |
| Major Depression     | • One Clinical Global Impression (CGI) Scale for each item (severity, improvement)  
                       • Two consultations for CDMP Mental Health |

CONCLUSIONS

The primary care physician can play a useful role in the provision of primary care psychiatry. There is a need to work on the three principles of good handover information from the psychiatrist, a hotline for advice, and a building up of support resources. Understanding that bipolar disorder is a life long disease is the important first step in the care of this group of patients.

REFERENCES


LEARNING POINTS

- The role of the primary care physician in providing primary psychiatry care is fast becoming defined for him by society.
- The paradigm shift is from mental disease to positive mental health.
- Understanding that bipolar disorder is a life long disease that requires recognition, acute management and assessment of response, management during remission, management of recurrence and relapse is the important first step.
- Unrecognised or inadequately managed, bipolar disorder has a high cost to the patient and society.
- The need for supporting care from family members and other caregivers also needs recognition and action by all the stakeholders.
- What the primary care physician can do best is the application of the principles of primary, personal, preventive, comprehensive, continuing, and co-ordinated care to the patient, family, and community in the total management of this condition.
- In Singapore, there are now 4 mental health conditions in MOH’s chronic disease management programme.
- The primary care physician has also an administrative role to help the patient make Medisave claims.