



COLLEGE OF FAMILY PHYSICIANS SINGAPORE

THE SINGAPORE FAMILY PHYSICIAN

PERMIT NO. MICA(P):163/01/2011

VOL 37(4) OCTOBER-DECEMBER 2011

BIPOLAR DISORDER & DEPRESSION



being followed?



Some of the symptoms of psychosis:

- Thinking people are against you or talking about you
- Thinking you have special powers
- Hearing voices that others cannot hear
- Seeing things that others cannot see
- Feeling sad, irritable, confused or isolated
- Feeling like you are being watched
- Difficulty sleeping
- Difficulty coping with work or study
- Talking or smiling to yourself
- Neglecting your appearance
- Avoiding people

The earlier psychosis is treated the better the recovery
Seek help early. Speak to your doctor or counselor.

Or contact our hotline at **6389 2972** or **9017 8212**
Monday-Friday, 8am - 5pm. www.epip.org.sg

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JOURNAL OF THE SINGAPORE FAMILY PHYSICIAN

Printed by Tri-Art Printers Pte Ltd

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MENTAL DISORDERS

Adj Asst Prof (Dr) Tan Ngiap Chuan

SFP2011; 37(4): 3

Mental disorders are prevalent in the general population. The primary care physician (PCP) is often the first contact person by the patient, who may present in myriad ways. It is thus a challenge for PCP to recognise and provide a provisional diagnosis during the preliminary encounters. This is especially so in the local context where significant proportions of such patients are without regular family physicians. For those fortunate patients who consult their family physicians regularly, it is important for these physicians to pick up changes in their mood and functions, as early diagnosis and appropriate treatment will result in more favorable outcomes.

Depression strikes about 5.6% of the general population in Singapore. It is postulated that major depression will be the 2nd leading cause of global burden of disease by 2010. PCP can manage a large number of depressed patients, it is estimated that half of those with major depression will miss their diagnosis during the consultations. It is important for PCP to realise that 50-95% of psychiatric patients will present with somatic complaints, which are often vague and cannot be explained by organic etiologies. Geriatric and pediatric populations as well as women during the perinatal periods with such disorders pose even greater challenges for the PCPs to manage. PCPs are expected to be competent in carrying out mental and suicidal assessments for these patients. For those who require specialist's attention and treatment, referral to psychiatric services have to be tactfully managed due to the prevailing stigma associated with mental disorders.

With the establishment of a therapeutic physician-patient relationship, managing simple cases of depression in primary care can be fulfilling. PCPs are skilled to provide simple counseling and carry out psycho-education by enhancing

patient's understanding of their condition, dispelling their misperception and de-stigmatising fears. Cognitive Behaviour Therapy (CBT) is another intervention to identify patient's negative thoughts and replace them with salutary cognitions. This is often coupled with drug therapy to achieve improved outcomes in the long term management of depression.

Despite the wide repertoire of anti-depressants now available in the community, it is imperative for PCPs to set the expectations right for their patients before initiating these medications. Most of these drugs have side-effects but often are transient in nature, lag time before the mood improves and can result in discontinuation syndrome if the drug is stopped abruptly.

Psychosis and bipolar disorders are serious psychiatric illnesses with profound adverse effects on the functions of the patients and impact on their families and society. Schizophrenia, a form of psychosis, was ranked top three in the leading causes of disability-adjusted life year (DALY) for Singaporeans aged between 15-44 years of age. For psychosis, early detection and treatment, through decreasing the duration of untreated psychosis, can result in better outcomes. Consequently, the Early Psychosis Intervention Programme (EPIP) was introduced in Singapore in 2001, which targets at early detection via outreach and networking between Institute of Mental Health (IMH) and community healthcare providers, instituting evidence-based treatment and conducting mental health service research to determine the cost-effectiveness of the programme. An example of measures introduced by EPIP include the Global Assessment of Functioning (GAF), which provides the PCPs with a tool to assess the level of functioning for their patients more objectively.

This issue provides an overview and incorporates updates on the management of mental disorders, which will be included in the expanded chronic disease management programme (CDMP) in Singapore. Together with the workshops organised by IMH and HPB, such training aim to equip the PCPs to further enhance the care of their patients. PCPs play important role in re-integrating these patients back to the community.

TAN NGIAP CHUAN, Honorary Editor, Singapore Family Physician



DISTANCE LEARNING COURSE ON “BIPOLAR DISORDER & DEPRESSION”

- Overview of “Bipolar Disorder & Depression”
- Unit 1 : Role of Primary Care Physician in Bipolar Disorder and Depression
- Unit 2 : Overview of Bipolar Disorder
- Unit 3 : Overview of Major Depressive Disorder
- Unit 4 : Management of Major Depression
- Unit 5 : Management of Bipolar Disorder
- Unit 6 : Special Populations

OVERVIEW OF “BIPOLAR DISORDER & DEPRESSION” FAMILY PRACTICE

A/Prof Goh Lee Gan

SFP2011; 37(4): 6-7

INTRODUCTION

This Family Practice Skills Course focuses on Bipolar Disorder and Depression. Both Bipolar Disorder and Depression are among the 10 conditions in the MOH's Chronic Disease Management Programme (CDMP) where the patient's Medisave Account can be used up to a maximum of \$300 from his/her Medisave account. The patient's bill can be shared by a maximum of 10 Medisave accounts so long as the account holders are the patient's immediate family members and authorization from the family member has been given.

This Family Practice Skills Course is jointly organised and supported by Ministry of Health, Institute of Mental Health and Agency for Integrated Care. The Skills Course is organised as part of the CDMP MI initiatives. The end in mind is to build capacity amongst primary care physicians in primary care psychiatry. Come and update yourself to play an active role in this area of care.

COURSE OUTLINE AND CME POINTS

This Family Practice Skills Course is made up of the following components. You can choose to participate in one or more parts of it. The CME points that will be awarded are also indicated below.

Components and CME Points

- Distance Learning Course – 6 units (6 Core FM CME points upon attaining a minimum pass grade of 60% in Distance Learning Online MCQ Assessment)
- 2 Seminars (2 Core FM CME points per seminar)
- 2 Workshops (1 Core FM CME point per workshop)
- 10 Readings – read 5 out of 10 recommended journals (maximum of 5 CME points for the whole CME year)

Distance Learning Course

Unit 1 : Role of Primary Care Physician in Bipolar Disorder and Depression

A/Prof Goh Lee Gan

Unit 2 : Overview of Bipolar Disorder

Dr Chan Herng Nieng

Unit 3 : Overview of Major Depressive Disorder

Dr Lim Boon Leng

Unit 4 : Management of Major Depression

Dr Nelson Lee

Unit 5 : Management of Bipolar Disorder

Dr Mok Yee Ming

Unit 6 : Special Populations

Dr Chua Tze-Ern

COURSE TOPIC DETAILS

Unit 1: Role of Primary Care Physician in Bipolar Disorder and Depression

- Primary care psychiatry.
- Applying the liaison psychiatry concept.
- Treatment algorithm for bipolar disorder.
- Patient education and monitoring.
- Guidelines for continuing care.
- Clinical indicators for bipolar disorder.
- Recommended investigations for patients receiving selected pharmacotherapy.
- Use of Medisave in relation to bipolar disorder
- Submission of clinical data

Unit 2: Overview of Bipolar Disorder

- Introduction.
- Clinical features.
- Diagnostic challenges.
- Risks associated with bipolar disorder.
- Risk management.
- Management challenges.
- Conclusions.

Unit 3: Overview of Major Depressive Disorder

- Introduction.
- Depression in primary care.
- Clinical presentation of depression.
- Mental state examination.
- Suicide assessment.
- Risk factors.
- Other depressive disorders
- Co-morbidity.
- Differential diagnosis.
- Referral to specialist.

Unit 4: Management of Major Depression?

- Introduction.
- Management strategies.

GOH LEE GAN, Associate Professor, Division of Family Medicine, University Medicine Cluster, National University Health System Senior Consultant, Institute of Family Medicine, College of Family Physicians Singapore

- Establish a therapeutic relationship and psychoeducation.
- Watchful waiting.
- Psychological interventions.
 - Supportive counselling.
 - Interpersonal therapy.
 - Cognitive behaviour therapy.
 - Behavioural therapy.
 - Other psychological therapies.
- Pharmacotherapy.
- Referral to the psychiatrist.
- Conclusions.

Unit 5: Management of Bipolar Disorder

- Introduction.
- Pharmacological therapies.
- Electroconvulsive Therapy (ECT).
- Agitated behaviour.
- Maintenance phase.
- Mood stabilizers.
- Antidepressants.
- Antipsychotics.
- Benzodiazepines.
- Psychological therapies.
- Conclusions.

Unit 6: Special Populations

- Introduction.
- Children and adolescents.
- Women during the perinatal period
- Elderly patients.
- Conclusions.

FACE-TO-FACE SESSIONS

Seminar 1: 29 October 2011, 2.00pm – 4.15pm

Unit 1 : Role of Primary Care Physician in Bipolar Disorder and Depression

A/Prof Goh Lee Gan

Unit 2 : Overview of Bipolar Disorder

Dr Terence Leong

Unit 3 : Overview of Major Depressive Disorder

Dr Wei Ker-Chiah

Workshop 1: 29 October 2011, 4.30pm – 5.45pm

Case Studies on Bipolar Disorder

Dr Wei Ker-Chiah, Dr Mok Yee Ming

Seminar 2: 30 October 2011, 2.00pm – 4.15pm

Unit 4 : Management of Major Depression

Dr Mok Yee Ming

Unit 5 : Management of Bipolar Disorder

Dr Mok Yee Ming

Unit 6 : Special Populations

Dr Chua Tze-Ern

Workshop 2: 30 October 2011, 4.30pm – 5.45pm

Case Studies on Depression

Dr Mok Yee Ming, Dr Chua Tze-Ern.

UNIT NO. I

ROLE OF PRIMARY CARE PHYSICIAN IN BIPOLAR DISORDER AND DEPRESSION

A/Prof Goh Lee Gan

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

SFP2011; 37(4): 8-12

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.¹

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The local survey of 543 GPs from 477 clinics on the apprehensions and views of our primary care doctors² 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.³

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

Table 1. Essential care components for bipolar disorder follow-up management

	Essential Component	Minimum Recommended Frequency (per year)	Remarks
A1	Clinical Global Impression (CGI) a. Severity b. Improvement	At least once yearly or as clinically indicated	Provider-administered
A2	Patient attendance	At least twice a year or as clinically indicated	Provider-administered
A3	Blood test for fasting glucose and lipids (only for patients on atypical antipsychotics)	At least once yearly	

disorder patients after establishing diagnosis:

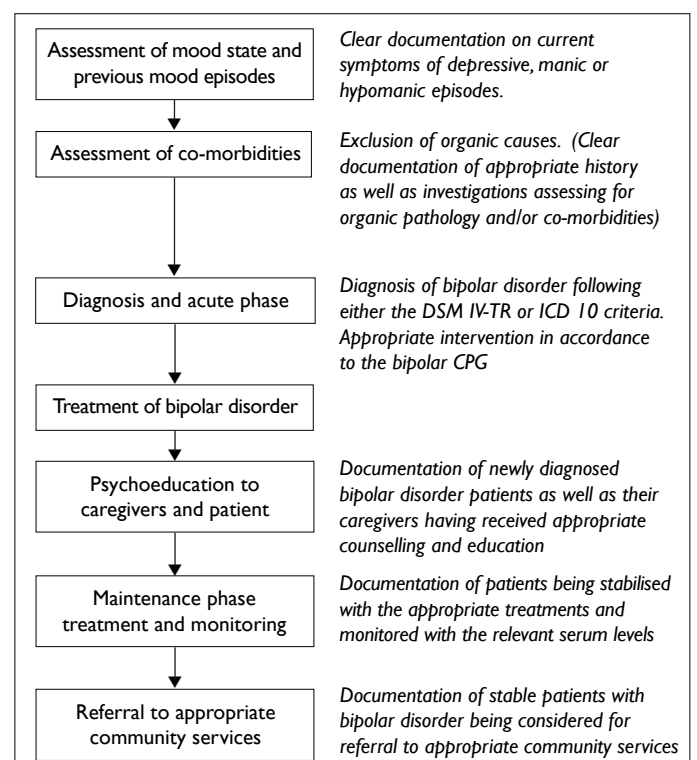
- (1) Clinical Global Impression (CGI) Scale.
- (2) Consultation for CDMP Mental Health.
- (3) Blood test for fasting lipids and fasting blood glucose (only for patients on atypical antipsychotic medication).

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

Table 2. Clinical indicators required for bipolar disorder management

Clinical Indicator	Frequency
Clinical Global Impression (CGI) Scale	At least once yearly or as clinically indicated
Consultation for CDMP Bipolar disorder	Twice yearly or as clinically indicated

Figure 1: Treatment algorithm for bipolar disorder



(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 CDM 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 4. Medisave claimable items

- Management of the patient based on the care components in the respective Disease Management Programme (DMP)
- Medical consultations primarily for the approved chronic conditions under the Programme.
- Relevant investigations (including laboratory and radiological) for the evaluation of the disease or its complications.
- Prescribed drugs and nursing care for the management of the approved conditions or their complications.
- Physiotherapy, occupational and speech therapy for the rehabilitation of the patient.

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

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

Table 5B. List of Medisave Claimable Drugs for Treatment of Psychiatric Conditions

S/N	Drug	S/N	Drug
1	Amisulpride	24	Lithium*
2	Amitriptyline	25	Maprotiline
3	Aripiprazole	26	Memantine#
4	Benzhexol	27	Mirtazepine
5	Benztropine	28	Moclobemide
6	Bupropion	29	Nortriptyline
7	Carbamazepine*	30	Olanzapine
8	Chlorpromazine	31	Paliperidone
9	Clomipramine	32	Paroxetine
10	Clozapine	33	Perphenazine
11	Donepezil	34	Quetiapine
12	Dothiepin	35	Risperidone
13	Doxepin	36	Rivastigmine #
14	Duloxetine	37	Sertraline
15	Escitalopram	38	Sodium Valproate*
16	Fluoxetine	39	Sulpiride
17	Flupenthixol	40	Tianeptine
18	Fluphenazine	41	Trazodone
19	Fluvoxamine	42	Trifluoperazine
20	Galantamine#	43	Trimipramine
21	Haloperidol	44	Venlafaxine
22	Imipramine	45	Ziprasidone
23	Lamotrigine	46	Zuclopenthixol

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

List of claimable therapies for treatment

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

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. rTMS)
- 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 have been 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

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	

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

Chronic Condition(s)	Care Components Per Year
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) 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 consultations for CDMP Mental Health One blood test for fasting lipids One blood test for fasting glucose
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

Bipolar disorder	<ul style="list-style-type: none"> One Clinical Global Impression (CGI) Scale for each item (severity, improvement) Two consultations for CDMP Mental Health
Dementia	<ul style="list-style-type: none"> Documentation of: <ol style="list-style-type: none"> assessment of memory assessment of mood and behaviour assessment of functional and social difficulties (if any) assessment of rehabilitation needs Two consultations for CDMP Dementia For patients on cognitive enhancers, documentation of objective assessment of memory (MMSE or CMMSE testing or other validated instruments)

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 life long disease is the important first step in the care of this group of patients.

REFERENCES

- Goh LG. Mental Health Initiatives in Singapore. Singapore Family Physician 2010; 36(4):5.
- Vaingankar JA, Fong CW, Kwok KK, Lee KH, Lum WMA, Phua MY, and Chong SA. Managing patients with mental illness in primary care: apprehensions and views of general practitioners. Singapore Family Physician 2010; 36(4):22-25.
- Blashki G, Selzer R, Judd F, Hodgins G, and Ciechmski L. Primary care psychiatry: taking consultation-liaison psychiatry to the community. Australas Psychiatry 2005; 13(30):302-6.
- MOH. Chronic Disease Management Programme: Dementia and Bipolar Disorder. Handbook for Healthcare Professionals. MOH: Singapore, 2011.

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.**

UNIT NO. 2

OVERVIEW OF BIPOLAR DISORDER

Dr Chan Heng Nieng

ABSTRACT

Bipolar disorder is a serious psychiatric illness that has a negative impact on multiple domains of functioning. The diagnosis is frequently difficult due to the varied symptoms of the disorder and the management often challenging. This article discusses the clinical features of the two main subtypes of the disorder and the risks associated with it. The management of risk and poor treatment adherence is explored. This will guide clinicians working with patients to achieve better clinical outcomes.

Keywords: Bipolar disorder; mania; hypomania; depression; risk; adherence; treatment

SFP2011; 37(4): 13-17

INTRODUCTION

Bipolar disorder is a cyclical mood disorder characterised by distinct periods of mood disturbances. Sustained elevation or depression of mood is observed and psychotic symptoms may be present. The prevalence of bipolar disorder in Singapore is as yet unknown, but it is generally accepted that it affects 1-2% of people in their lifetime.^{1,2} The onset of bipolar disorder is usually between 15-25 years old and the risk of relapse could be as high as 87%.³ The impact on patients is significant and usually adverse. Bipolar disorder has been shown to negatively affect social and occupational functioning, lower the quality of life of patients and increase health care utilisation and costs.⁴ It was estimated that the illness cost the United States \$15.5 billion in lost productivity annually in the early 1990s.⁵ There is an increased risk of suicidality, with a quarter of patients attempting suicide at least once.⁶ Co-morbidity with other psychiatric disorders is common, especially anxiety and substance use disorders.⁷

CLINICAL FEATURES

In Singapore, the DSM-IV-TR is commonly used for both diagnostic and research purposes. Under the DSM-IV-TR classification, manic episodes (Table 1) are present in bipolar I disorder and hypomanic episodes (Table 2) are present in bipolar II disorder. Unlike manic episodes, hypomanic episodes are shorter in duration, not severe enough to cause marked impairment or necessitate hospitalisation, and psychosis is

absent. Major depressive episodes (Table 3) are present in both, although in some cases, patients may only have had manic episodes; such patients are still classified as having bipolar I disorder. When both the criteria for a manic episode and major depressive episode are met for nearly every day during at least a 1-week period, a mixed episode is diagnosed. Rapid cycling patients have four or more episodes of a mood disturbance in the previous 12 months that meet criteria for major depressive, manic, mixed or hypomanic episode.

Table 1. Manic Episode

- A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week (or any duration if hospitalisation is necessary).
- B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:
 - (1) inflated self-esteem or grandiosity
 - (2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
 - (3) more talkative than usual or pressure to keep talking
 - (4) flight of ideas or subjective experience that thoughts are racing
 - (5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
 - (6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
 - (7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)
- C. The symptoms do not meet criteria for a Mixed Episode.
- D. The mood disturbance is sufficiently severe to cause marked impairment in occupational functioning or in usual social activities or relationships with others, or to necessitate hospitalisation to prevent harm to self or others, or there are psychotic features.
- E. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment) or a general medical condition (e.g., hyperthyroidism).

American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th Edition. Text revision. Washington DC: APA, 2000

Table 2. Hypomanic episode

- A. A distinct period of persistently elevated, expansive, or irritable mood, lasting throughout at least 4 days, that is clearly different from the usual non depressed mood.
- B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:
 - (1) inflated self-esteem or grandiosity
 - (2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)
 - (3) more talkative than usual or pressure to keep talking
 - (4) flight of ideas or subjective experience that thoughts are racing
 - (5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)
 - (6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation
 - (7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., the person engages in unrestrained buying sprees, sexual indiscretions, or foolish business investments)

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- C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the person when not symptomatic.
- D. The disturbance in mood and the change in functioning are observable by others.
- E. The episode is not severe enough to cause marked impairment in social or occupational functioning, or to necessitate hospitalisation, and there are no psychotic features.
- F. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication, or other treatment) or a general medical condition (e.g., hyperthyroidism).

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th Edition. Text revision. Washington DC: APA, 2000

Table 3. Major depressive episode

- 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:
 - (1) 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.
 - (2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)
 - (3) 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 expected weight gains.
 - (4) Insomnia or hypersomnia nearly every day
 - (5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)
 - (6) fatigue or loss of energy nearly every day
 - (7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)
 - (8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)
 - (9) 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 characterised by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th Edition. Text revision. Washington DC: APA, 2000

Patients are in a euphoric mood during manic episodes, although irritability and agitation can be present. They may become disinhibited in their speech and behaviour – talking loudly, making inappropriate comments and becoming overfamiliar with strangers. Their fast-paced speech is a reflection of their racing thoughts. They experience a surge in energy levels and do not feel fatigued, even with less sleep. Patients often have grandiose ideas and beliefs about their abilities, initiating

ambitious projects that are not finished because of distractibility and disorganisation. Insight is lost and judgement impaired, which leads to risk taking behaviours like speeding, spending money excessively, substance misuse and sexual indiscretions. If psychotic symptoms are present, they are usually hallucinations and/or delusions congruent to the euphoria and grandiosity that the patient is experiencing. As a result, patients' social and working life are adversely affected. In hypomanic episodes, the symptoms and signs are attenuated and insight is often retained. Patients frequently prefer to be in this state, as they feel creative, energetic and productive. Friends and family also notice and welcome this change as patients appear more outgoing and sociable. However, hypomanic patients are still at risk of making disadvantageous decisions, as judgment continues to be impaired.

In both bipolar I and II disorders^{9,10}, patients experience depressive symptoms for as much as 50% of the time. The symptoms and signs of bipolar depression are essentially the same as that in unipolar depression. However certain features of depression have been reported to occur more frequently in patients suffering from bipolar disorder (Table 4)^{11,12}. These features are not pathognomonic of bipolar depression but they may serve as clues to identifying bipolar disorder, especially if depression, rather than mania, is the presenting symptom. A higher frequency of past suicide attempts in bipolar depressed patients (26.6% in bipolar vs. 17.8% in unipolar patients) has been observed.¹³ Suicide usually occurs when patients are in the depressive phase of the illness.¹⁴ It is essential to conduct a risk assessment for depressed bipolar patients and treat the depression adequately.

Table 4.

Clinical features more common in bipolar I depression	Clinical features more common in unipolar depression
Symptoms and signs	
Hypersomnia and/or increased daytime napping	Initial insomnia or reduced sleep
Hyperphagia and/or weight gain "Lead paralysis" (sensation of heavy limbs)	Decreased appetite and/or weight loss
Psychomotor retardation (physical and mental slowing)	Normal or increased activity levels (agitation, restlessness)
Psychotic features and/or pathological guilt Lability of mood, manic symptoms	Somatic complaints
Course of illness	
Early onset of first episode of depression (<25 years old suggested)	Later onset of first episode of depression (>25 years old suggested)
Multiple prior episodes of depression (5 or more episodes suggested)	Long duration of current episode of depression (more than 6 months suggested)
Family history	
Positive family history of bipolar disorder	Negative family history of bipolar disorder

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DIAGNOSTIC CHALLENGES

In a local study,¹⁵ 75% of patients first presented with depression and bipolar disorder was the initial diagnosis in only 34% of the cases. Bipolar disorder is commonly misdiagnosed as unipolar depression, as patients usually present to medical professionals when depressed, before the development of manic or hypomanic symptoms. Patients are more likely to seek help when depressed as depressive episodes are generally more distressing than hypomania. Patients who have experienced hypomania or mania may not be aware it is abnormal, often attributing it to normal mood swings. The history of risk-taking behaviours by patients in their manic state may not have been volunteered, especially if it is not asked by medical professionals.¹⁶ As a result, the diagnosis of bipolar disorder may be delayed by as long as two years.¹⁵ A recent multi-centre study¹⁷ reported that a family history of mania, at least 2 prior mood episodes, first psychiatric symptoms before the age of 30 years old, mania/hypomania during antidepressant therapy, and current mixed state suggest the presence of bipolarity in patients presenting with depression.

Bipolar disorder has also been misdiagnosed as other psychiatric disorders, due to the heterogeneity of the signs and symptoms of both poles of the illness. Agitation, irritability and mood disturbances may be erroneously attributed to borderline personality disorder. Anxiety disorders, which are often co-morbid with bipolar disorder,⁷ may mask the symptoms of bipolar disorder. Bipolar patients have high rates of co-morbid substance misuse,⁷ as patients try to seek relief by self-medicating. Diagnosis becomes difficult as the mood disturbances, disorganised behavior, and even psychotic experiences are assumed to be the result of intoxication or withdrawal states.

Younger patients presenting with the symptoms suggestive of bipolar disorder need to be assessed for attention deficit hyperactivity disorder. Organic causes need to be considered for patients presenting for the first time above the age of 40 years old. Endocrinological disorders (e.g. hyperthyroidism, Cushing's disease), neurological disorders (e.g. neoplasm, multiple sclerosis), and autoimmune disorders (e.g. systemic lupus erythematosus) have to be excluded.

Diagnostic scales have been developed and used in research settings; however there is little evidence to suggest that they are useful in screening or diagnosing bipolar disorder in the general public or primary care setting. In addition, there is the risk of "over-diagnosing" bipolar disorder.¹⁸ Careful clinical assessments, including obtaining the history of past episodes of mania and hypomania in patients with first presentation of depression, remain the key accurate diagnosis.

RISKS ASSOCIATED WITH BIPOLAR DISORDER

Patients who are manic tend to spend indiscriminately, exposing themselves to possible financial ruin. Indulging in pleasure-seeking activities like promiscuous sex and psychoactive substances is detrimental to health and reputation. Irritability, agitation and aggression may lead to damage of social and

occupational relationships, and potentially run-ins with the law. Depressed patients are at risk of self-harm and misuse of substances. Self-neglect (poor diet and personal hygiene, non-adherence to treatment) frequently occurs in patients experiencing either pole of the illness. Psychotic symptoms may put patients at risk for suicide (e.g. a depressed patient who hears voices instructing him to kill himself as he is "of no use to this world") or dangerous situations (e.g. a grandiose patient who believes he is as skilful as a racing driver and speeds while driving).

RISK MANAGEMENT

In addition to interviewing patients, obtaining corroborative history from friends and relatives is helpful in establishing risk. In the assessment of suicide risk, non-modifiable risk factors like recent divorce or bereavement, history of impulsive behaviour, previous self-harm, and family history of suicide identifies the high-risk patient. The patient should be asked about suicidal thoughts and plans. Modifiable risk factors, such as anxiety and agitation, psychosis, feelings of hopelessness, social isolation, unemployment, co-morbid medical or psychiatric illnesses, can be alleviated by utilising medical, psychological and social interventions. Protective factor should be emphasised e.g. religious or moral objections to suicide, good coping and functioning in the past.

A risk-management plan developed in collaboration by the treating doctor with family members or friend is helpful. In the event of a relapse, a risk-management plan will guide decision-making in terms of psychiatric treatment, including hospital admissions; financial arrangements to prevent overspending; and other concerns e.g. the amount of access by colleagues and friends when the patient is unwell. Patients can learn to recognise the early signs and symptoms of a relapse -- the "relapse signature". It is usually unique to each patient and often subtle e.g. (for mania/hypomania) feeling more alert, completing tasks quicker than before; (for depression) easily tearful for no reason, becoming indecisive. The risk-management plan is activated if required and steps can be taken to prevent progression to a full-blown relapse. Involuntary admission under the Mental Health (Care and Treatment) Act¹⁹ should be considered when patients are at immediate risk to themselves or others and are not cooperative with treatment due to the loss of insight.

MANAGEMENT CHALLENGES

Pharmacological treatment is the cornerstone in preventing relapses but poor adherence is common.²⁰ Frequent manic relapses may lead to decreased response to medication²¹ and are predictive of poorer outcomes.²² Patients who are adherent to mood stabilisers, like lithium,²³ are less likely to self harm and die by suicide. In a review,²⁴ risk factors associated with poor adherence had been broadly categorised into three groups: (1)

demographic and illness related factors; (2) knowledge, attitudes and beliefs; (3) treatment variables (Table 5). These are useful in identifying and guiding the management of at-risk patients. The development of a good therapeutic alliance with patients is crucial to reducing denial or self-stigmatisation and improving adherence. Addressing patients' concerns through education about the illness, treatment benefits and side effects goes a long way to consolidating the collaborative effort and clarifying doubts. This may be carried out using written material or repeated explanations during clinical sessions. Including family members in such discussions addresses their concerns and provides the sense of working towards a common goal. Constant professional exchanges between the family physician and the psychiatrist ensure continuity of care for the affected patient.

Table 5: Factors associated with non-adherence to treatment

Demographic and illness related factors

Younger age
Not married
Acute manic or depressive state
Psychosis
Substance abuse
Personality disorder
Cognitive deficits

Knowledge, attitudes and beliefs to illness and treatment

Feeling stigmatised
Denial of illness
Lack of knowledge about illness and medication
Lack of trust in medication and clinician
Unrealistic treatment expectations
Fear of side effects
Negative influence from family
Preference for "sick" role
Preferring the "high"
Fear of being "dependent" on medication

Treatment variables

Poor therapeutic alliance
Previous non-adherence
Lack of continuity of care
Lack of adjunctive psychosocial interventions

Adapted from Berk L, Hallam KT, Colom F et al.²⁴

CONCLUSIONS

Bipolar disorder is a serious mental illness with significant negative impact on multiple domains of an individual's life. Its diagnosis and treatment presents many clinical challenges. The optimal management of bipolar disorder requires both pharmacological and psychosocial treatments to be delivered in a collaborative manner to achieve the best possible outcome.

REFERENCES

- Angst J. The emerging epidemiology of hypomania and bipolar II disorder. *J Affect Disord*. 1998; 50(2-3): 143-51.
- Grant BF, Stinson FS, Hasin DS, et al. Prevalence, correlates, and comorbidity of bipolar I disorder and axis I and II disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *J Clin Psychiatry*, 2005; 66:1205-15.
- Keller MB, Lavori PW, Coryell W, et al. Bipolar I: A five year prospective follow-up. *J Nerv Ment Dis*, 1993; 181: 238-45
- Dean BB, Gerner D, Gerner RH. A systematic review evaluating health-related quality of life, work impairment, and health-care costs and utilisation in bipolar disorder. *Curr Med Res Opin*, 2004; 20(2): 139-54.
- Kessler RC, Akiskal HS, Ames M, et al. Prevalence and effects of mood disorders on work performance in a nationally representative sample of U.S. workers. *Am J Psychiatry*. 2006; 163(9):1561-8.
- Simon GE, Hunkeler E, Fireman B, et al. Risk of suicide attempt and suicide death in patients treated for bipolar disorder. *Bipolar Disord*, 2007; 9: 526-30.
- Merikangas KR, Akiskal HS, Angst J, et al. Lifetime and 12-Month Prevalence of Bipolar Spectrum Disorder in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2007; 64:543-52.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th Edition. Text revision. Washington DC: APA, 2000.
- Judd LL, Akiskal HS, Schettler PJ, et al. The Long-term Natural History of the Weekly Symptomatic Status of Bipolar I Disorder. *Arch Gen Psychiatry*. 2002; 59: 530-7.
- Judd LL, Akiskal HS, Schettler PJ, et al. A Prospective Investigation of the Natural History of the Long-term Weekly Symptomatic Status of Bipolar II Disorder. *Arch Gen Psychiatry*. 2003; 60:261-9.
- Mitchell PB, Goodwin GM, Johnson GF. Diagnostic guidelines for bipolar depression: a probabilistic approach. *Bipolar Disord* 2008; 10: 144-52.
- Mitchell PB, Loo CK, Gould BM. Diagnosis and monitoring of bipolar disorder in general practice. *Med J Aust*, 2010; 193: S10-13.
- Bottlender R, Jäger M, Strauß A, et al. Suicidality in bipolar compared to unipolar depressed inpatients. *Eur Arch Psychiatry Clin Neurosci*, 2000; 250: 257-61.
- Isometsä ET, Henriksson MM, Aro HM, et al. Suicide in bipolar disorder in Finland. *Am J Psychiatry* 1994; 151:1020-4.
- Peh ALH, Tay LK. Demographical profile and clinical features of patients with bipolar disorder in an outpatient setting in Singapore. *Singapore Med*, 2008; 49(5): 380-3.
- Hirschfeld RMA, Lewis L, Vornik LA. Perceptions and impact of bipolar disorder: how far have we really come? Results of the National Depressive and Manic-Depressive Association 2000 survey of individuals with bipolar disorder. *J Clin Psychiatry*, 2003; 64: 161-74.
- Angst J, Azorin J-M, Bowden CL. Prevalence and Characteristics of Undiagnosed Bipolar Disorders in Patients With a Major Depressive Episode: The BRIDGE Study. *Arch Gen Psychiatry*. 2011; 68(8): 791-9.
- Phelps JR, Ghaemi SN. Improving the diagnosis of bipolar disorder: Predictive value of screening tests. *J Affect. Disord*, 2006; 92: 141-8.
- Mental Health (Care And Treatment) Act 2008, Republic of Singapore.
- Perlick DA, Rosenheck RA, Kaczynski R, et al. Medication non-adherence in bipolar disorder: a patient-centered review of research findings. *Clin Approach Bipolar Disord*, 2004; 3: 56-64.
- Swann AC, Bowden CL, Calabrese JR et al. Differential effect of number of previous episodes of affective disorders on response to lithium or divalproex in acute mania. *Am J Psychiatry*, 1999; 156: 1264-6.
- Tohen M, Waternaux CM, Tsuang MT. Outcome in mania: A 4-year prospective follow-up of 75 patients utilising survival analysis. *Arch gen Psych*, 1990; 47: 1106-11.
- Cipriani A, Pretty H, Hawton K, et al. Lithium in the Prevention of Suicidal Behavior and All-Cause Mortality in Patients With Mood Disorders: A Systematic Review of Randomised Trials. *Am J Psychiatry*, 2005; 162:1805-19.
- Berk L, Hallam KT, Colom F et al. Enhancing medication adherence in patients with bipolar disorder. *Hum. Psychopharmacol Clin Exp*, 2010; 25: 1-16.

LEARNING POINTS

- **Bipolar disorder is a cyclical mood disorder characterised by distinct periods of mood disturbances, namely manic episodes are present in bipolar I disorder and hypomanic episodes are present in bipolar II disorder.**
 - **In both bipolar I and II disorders patients experience depressive symptoms for as much as 50% of the time and suicide usually occurs when patients are in the depressive phase of the illness.**
 - **In a local study, 75% of patients first presented with depression and bipolar disorder was the initial diagnosis in only 34% of the cases.**
 - **Pharmacological treatment is the cornerstone in preventing relapses but poor adherence is common.**
 - **The development of a good therapeutic alliance with patients is crucial to reducing denial or self-stigmatisation and improving adherence.**
-

UNIT NO. 3

OVERVIEW OF MAJOR DEPRESSIVE DISORDER

Dr Lim Boon Leng

ABSTRACT

Depression is a common disorder in the general population and is frequently encountered in the primary care setting. Recognition and appropriate diagnosis is imperative for prompt treatment to take place and will result in better outcomes for patients suffering from the disorder. Diagnosis of major depression is made when depressed mood becomes more pronounced and is accompanied by other symptoms. It is based on the DSM IV-TR criteria for major depression. It is also important to keep in mind that the diagnosis is often obscured as patients, especially the elderly, tend to present with only complaints of physical symptoms. However, a careful history and an emphatic approach from physicians will help reveal the diagnosis. A suicide assessment should be performed for all depressed patients and referral to a psychiatric service should be made if depression is severe and the risk of suicide is high.

Keywords: Mood disorder; suicide risk; diagnosis; primary care

SFP2011; 37(4): 18-21

INTRODUCTION

Depression is a common disorder in the general population. In Singapore, the National Mental Health Survey (NMHS) conducted in 2004 reported the lifetime prevalence of depression to be 5.6% among the general population¹. Depression is now recognised as a chronic disorder with episodes of long duration and high rates of relapses and recurrences. It is the second leading cause of long term disability and the World Health Organisation Global Burden of Disease Survey has estimated that by 2020, major depression will be the second leading cause of global burden of disease². Depression has far reaching consequences as it is known to cause patient suffering, family distress and significantly increase risk of suicide. As such, the recognition and prompt treatment of depression should be of high priority to physicians.

DEPRESSION IN PRIMARY CARE

Depression is commonly encountered in the primary care setting and about 10% of patients may meet the criteria for major depression³. Although primary care physicians detect and manage efficiently a large number of depressed patients, about

half of patients with major depression will go unrecognised during their consultations⁴. Depression is often missed as patients tend to present primarily with somatic symptoms or depressive symptoms related to physical ailments⁵. Recognition is hampered when depressed patients present with only non-specific physical complaints and do not spontaneously reveal the psychological aspects of their problems⁶. Overt depressed mood is also less common in people with chronic illness and in teens and the elderly⁷.

With the high level of variability in the clinical presentation of depression, physicians will need to have a high index of suspicion in enquiring for information relevant to the diagnostic criteria. It is suggested that a relatively direct interview for the main specific symptoms of depression can be a useful approach. Physicians who are more emphatic, have better eye contact, are less likely to show signs of being in a hurry and are good listeners are more likely to elicit depressive symptoms⁸. Prompt recognition of depression will allow patients to receive effective pharmacotherapy and psychological treatments and this will result in better outcomes for the patients.

CLINICAL PRESENTATION OF DEPRESSION

Severe depression can be readily recognised but it may be difficult to distinguish milder form of depression from emotional changes associated with everyday life. Life events such as job loss, divorce, and bereavement can result in a depressive reaction of short duration. Clinical depression or major depression develops when depressed mood becomes more pronounced, pervasive and is accompanied by other symptoms. The DSM IV-TR symptoms criteria (Table 1) can be used for the diagnosis of major depression and this is particularly useful when considering treatment with an antidepressant medication⁹. The mnemonic "IN SAD CAGES" is a useful aid to remembering the diagnostic symptoms (Table 2).

Table 1: DSM IV-TR criteria for Major Depressive Episode and Major Depressive Disorder*

Depressed mood and/or loss of interest or pleasure in life activities for at least 2 weeks and at least five of the following symptoms that cause clinically significant impairment in social, work, or other important areas of functioning almost every day.

1. Depressed mood most of the day.
2. Diminished interest or pleasure in all or most activities.
3. Significant unintentional weight loss or gain.
4. Insomnia or sleeping too much.
5. Agitation or psychomotor retardation noticed by others.
6. Fatigue or loss of energy.
7. Feelings of worthlessness or excessive guilt.
8. Diminished ability to think or concentrate, or indecisiveness.
9. Recurrent thoughts of death

* Major Depressive Disorder requires two or more major depressive episodes.

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Table 2: Mnemonic “IN SAD CAGES”

IN -- Interest (loss of)
S -- Sleep disturbances
A -- Appetite and weight disturbances
D -- Dysphoric mood
C -- Concentration poor
A -- Activity (either decreased or agitated)
G -- Guilt
E -- Energy decreased
S -- Suicidal Ideations

Patients rarely present with the classical signs and symptoms in clinical settings. Studies in primary care situations suggest that 50%-95% of psychiatric patients will initially present with somatic complaints¹⁰. These physical symptoms are often vague and cannot be explained by organic causes. Typical symptoms include headache, chest discomfort or pain, fatigue, gastrointestinal complaints, dizziness, joint pain and weight loss.

Prominent somatic and hypochondriacal complaints are particularly common in the geriatric population and the elderly suffering from depression is unlikely to complain of sadness. They may exhibit a sense of hopelessness, anxiety and anhedonia (the inability to gain pleasure from enjoyable experience)¹¹. Other features that may indicate underlying depression include slowness of movement and lack of interest in self-care. Sometimes, they may present with a dementia-like picture and complain of poor memory. As organic causes of depression are more frequent in the elderly, careful history-taking, physical examination and appropriate laboratory investigations will be necessary to rule them out.

In the paediatric population, depression may vary across the developmental stages. Younger children with depression may present with lack interest in activities they previously enjoyed, being overly critical of themselves and having feelings of hopelessness about the future. Difficulties at school may arise from a decrease in ability to concentrate during classes. Depressed children tend to lack energy, have problems sleeping and may be irritable. They may have somatic complaints such as stomach aches or headaches. They can have suicidal ideations which may even progress to suicide attempts. The phenomenology becomes more “adult-like” as the child progresses through to adolescence with adolescents presenting with more sleep and appetite disturbances, suicidal ideations and suicide attempts¹².

MENTAL STATE EXAMINATION

The mental state examination depends on the severity of depression and can be quite variable. Generalised psychomotor retardation is a common sign, although patients can also present with agitation. There may be signs to suggest a lack of attention to personal grooming and hygiene. The speech is often slow and monotonous. Affect is usually depressed, and often anxious or

irritable, with the patient easily moved to tears. The thought content is negativistic of self, world and future and reveals themes of helplessness and hopelessness. Suicidal ideas and plans may be elicited. In severe depression, mood congruent delusions may occur with themes such as poverty, failure, guilt, or terminal somatic illnesses. Perceptual disturbances such as hallucinations can occur in severe depression but are less common.

Cognitive function is intact, although assessment in severe depression may be difficult as the patient may not have the interest or energy to answer.

SUICIDE ASSESSMENT

A suicide assessment must be performed for all depressed patients. The patient is at risk of suicide not only when acutely ill but also as the illness improves and the patient regains enough energy to act on the thoughts and plans of self-harm. As such, it is important to always ask about suicide thoughts and plans. The mnemonic “SAD PERSONS” can be used to remember the risk factors suggesting an increase in the risk of suicide (Table 3)¹³. Should a patient be determined to be of high risk, immediate steps need to be taken to protect the patient. This may include hospitalisation or alerting family or friends so that the patient can be under close observation.

Table 3: Mnemonic “SAD PERSONS”

S -- Sex (male)
A -- Age (elderly or adolescent)
D -- Depression
P -- Previous suicide attempts
E -- Ethanol abuse
R -- Rational thinking loss (psychosis)
S -- Social supports lacking
O -- Organised plan to commit suicide
N -- No spouse (divorced > widowed > single)
S -- Sickness (physical illness)

RISK FACTORS

Research and clinical data indicate that there are wide-ranging risk factors to depression from genetic, developmental, social and environmental factors to significant life events. Age of onset is between 25 and 30 years and there is strong evidence that women have twofold the prevalence of men. Risk of depression is increased following separation and divorce, and is increased in families of those with major depression^{14,15}. Twin studies demonstrated that genetic factors influenced the risk of major depression by influencing the susceptibility of individuals to the depressive effect of life events¹⁶. Certain personality traits may also increase vulnerability, in particular amongst those individuals who have decreased emotional strength and increased interpersonal dependency¹⁷. Early childhood traumas such as neglect, physical and sexual abuse were predictive of adult onset depression¹⁸.

OTHER DEPRESSIVE DISORDERS

Other depressive disorders classified in DSM IV-TR include dysthymic disorder, depressive disorder not otherwise specified and adjustment disorders.

Dysthymic disorder. A chronic but mild form of depression. There are more than two (but fewer than five) symptoms present most of the time for at least two years. The symptoms must cause significant socio-occupational distress or impairment.

Depressive disorder not otherwise specified. Depressed mood is the central feature, but the symptoms do not fit the criteria for other depressive disorders, or adjustment disorders. It includes premenstrual depression, recurrent brief depression and other, less established, syndromes.

Adjustment disorders. Classified separately to depressive disorders, adjustment disorders refer to clinically significant emotional or behavioural symptoms related to depression, anxiety, or both, occurring in response to identifiable psychosocial stressors. They develop within three months of the stressor, and resolve within six months, and are not severe enough to meet criteria for major depressive disorder.

CO-MORBIDITY

Co-morbidity with other psychiatric disorders is common and depression can be a feature of virtually any psychiatric disorder. The co-morbidity between depression and anxiety disorder is very high and studies suggest that up to 40% of patients with panic disorder or OCD also have depression^{19,20}. High rates of depression are also found in alcohol-related disorders, eating disorders, schizophrenia and somatoform disorders²¹.

DIFFERENTIAL DIAGNOSIS

In the primary care setting, it will be important to exclude secondary causes that may cause depressed mood.

Many medical conditions are associated with depression and careful physical examinations and basic investigations are important to rule them out. Common conditions associated with depression include endocrine disorders (thyroid dysfunction, Cushing's disease and Addison's disease) infections (infectious mononucleosis, influenza, tertiary syphilis and AIDS), neurological disorders (multiple sclerosis, Parkinson's disease) and cerebrovascular disorders. Underlying malignancies should also be considered especially when patients present with pronounced weight loss.

A long list of medications has been suspected of causing depression although for most drugs the evidence is weak. Drugs commonly known to cause depression are beta blockers, corticosteroids, oral contraceptives and sedative hypnotic agents²². Alcohol and illicit drugs such as amphetamine derivatives can cause depression either during intoxication or withdrawal.

REFERRAL TO SPECIALIST

Referral should be considered when there is severe depression, high suicide risk, failure to respond to treatment, uncertainty about the diagnosis, possible organic brain disease or dementia, greater resources are needed, adolescent patients, co-morbidity with drugs or alcohol or when patients are not accepting recommended advice or treatment²³.

However, referral to psychiatric specialist service should be dealt with tactfully due to the stigma attached to mental illness. Educating patient and demystifying psychiatric service, explaining the emotional factors in illness, and addressing patient fears and beliefs are key elements in the process.

REFERENCES

1. Chua HC, et al. The prevalence of psychiatric disorders in Singapore adults. *Ann Acad Med Singapore*, 2004. 33(Suppl 5):S102.
2. Murray CJ, Lopez AD. Alternative projections of mortality and disability by cause 1990-2020: Global Burden of Disease Study. *Lancet*, 1997. 349(9064): p. 1498-504.
3. Spitzer RL, et al. Utility of a new procedure for diagnosing mental disorders in primary care. The PRIME-MD 1000 study. *JAMA*, 1994. 272(22): p. 1749-56.
4. Simon GE, et al. Outcomes of recognised and unrecognised depression in an international primary care study. *Gen Hosp Psychiatry*, 1999. 21(2): p. 97-105.
5. Kirmayer LJ, et al. Somatisation and the recognition of depression and anxiety in primary care. *Am J Psychiatry*, 1993. 150(5): p. 734-41.
6. Gilbody SM, et al. Improving the detection and management of depression in primary care. *Qual Saf Health Care*, 2003. 12(2): p. 149-55.
7. Kessler D, et al. Cross sectional study of symptom attribution and recognition of depression and anxiety in primary care. *BMJ*, 1999. 318(7181): p. 436-9.
8. Paykel ES, Priest RG. Recognition and management of depression in general practice: consensus statement. *BMJ*, 1992. 305(6863): p. 1198-202.
9. The Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision 2000, Washington DC: American Psychiatric Association.
10. Goldberg D. Epidemiology of mental disorders in primary care settings. *Epidemiol Rev*, 1995. 17(1): p. 182-90.
11. Gallo JJ, Rabins PV. Depression without sadness: alternative presentations of depression in late life. *Am Fam Physician*, 1999. 60(3): p. 820-6.
12. Birmaher B, et al. Childhood and adolescent depression: a review of the past 10 years. Part I. *J Am Acad Child Adolesc Psychiatry*, 1996. 35(11): p. 1427-39.
13. Patterson WM, et al. Evaluation of suicidal patients: the SAD PERSONS scale. *Psychosomatics*, 1983. 24(4): p. 343-5, 348-9.
14. Angst J. Epidemiology of depression. *Psychopharmacology (Berl)*, 1992. 106 Suppl: p. S71-4.
15. Weissman MM, et al. Depression and anxiety disorders in parents and children. Results from the Yale family study. *Arch Gen Psychiatry*, 1984. 41(9): p. 845-52.
16. Kendler KS, et al. Stressful life events, genetic liability, and onset of an episode of major depression in women. *Am J Psychiatry*, 1995. 152(6): p. 833-42.

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| <p>17. Hirschfeld RM, et al. Premorbid personality assessments of first onset of major depression. <i>Arch Gen Psychiatry</i>, 1989. 46(4): p. 345-50.</p> <p>18. McCauley J, et al. Clinical characteristics of women with a history of childhood abuse: unhealed wounds. <i>JAMA</i>, 1997. 277(17): p. 1362-8.</p> <p>19. Klerman GL. Depression and panic anxiety: the effect of depressive co-morbidity on response to drug treatment of patients with panic disorder and agoraphobia. <i>J Psychiatr Res</i>, 1990. 24 Suppl 2: p. 27-41.</p> <p>20. Rasmussen SA, Eisen JL. Clinical features and phenomenology of obsessive compulsive disorder. <i>Psych Ann</i>, 1989. 19: p. 67-13.</p> | <p>21. Burrows GD, Judd FK, Norman TR. Differential diagnosis and drug treatment of panic disorder, anxiety and depression. <i>CNS Drugs</i> 1994. 2: p. 119-31.</p> <p>22. Patten SB, Lamarre CJ. Can drug-induced depressions be identified by their clinical features? <i>Can J Psychiatry</i>, 1992. 37(3): p. 213-5.</p> <p>23. Ellen SR, Norman TR, Burrows GD. MJA practice essentials. 3. Assessment of anxiety and depression in primary care. <i>Med J Aust</i>, 1997. 167(6): p. 328-33.</p> |
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LEARNING POINTS

- **Diagnosis of major depression is made when depressed mood becomes more pronounced, and is accompanied by other symptoms. It is based on the DSM IV-TR criteria for major depression.**
 - **Prompt recognition of depression will allow patients to receive effective pharmacotherapy and psychological treatments and this will result in better outcomes for the patients.**
 - **Depression is often missed as patients tend to present primarily with somatic symptoms or depressive symptoms related to physical ailments**
 - **A careful history and an emphatic approach from physicians will help reveal the diagnosis.**
 - **A suicide assessment should be performed for all depressed patients and referral to a psychiatric service should be made if depression is severe and the risk of suicide is high.**
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UNIT NO. 4

MANAGEMENT OF MAJOR DEPRESSION

Dr Nelson Lee

ABSTRACT

Mood disorders, in particularly Major Depressive Disorder are perhaps the most common psychiatric disorders encountered in a family practice setting. In milder cases psychological interventions may be all that is needed to manage the depression. Medication may be needed if the depression is more severe. Once an assessment including suicide assessment has been done, the primary care physician establishes a therapeutic relationship with the patient. He has 4 treatment options: watchful waiting, psychological interventions, pharmacotherapy, and referral to a psychiatrist. A combined approach of establishing a therapeutic relationship, psycho-education, and appropriate use of psychotropic medications give the best results. The primary care physician needs to know the indications for referral to a psychiatrist.

Keywords: Major Depressive Disorder; Psychological interventions; Antidepressants

SFP2011; 37(4): 22-26

INTRODUCTION

Mood disorders, in particularly Major Depressive Disorder (MDD) are perhaps the most common psychiatric disorders encountered in a family practice setting. Large epidemiological studies suggest that major depressive disorder has a lifetime prevalence of 16.6%, occurring with approximately twofold higher frequency in women compared with men.¹ The point prevalence of MDD has been reported to be 10% in the primary care setting, 15-20% in the nursing home population, and 22% to 33% in medically ill patients.² MDD also aggregates in families, it is 1.5 to 3 times more common in individuals with first degree biological relatives affected with MDD compared with the general population³.

Managing depression in the primary healthcare setting is a potentially fulfilling and highly possible provided that the patient is not severely ill. Many patients feel that treatment in this setting is more reassuring and less stigmatising. They often already have good rapport with the treating doctor which helps speed up the therapeutic process.

In milder cases psychological interventions may be all that is needed to manage the depression.⁴ Medication may be needed if the depression is more severe.

MANAGEMENT STRATEGIES

Once an assessment including suicide assessment has been done (as described in Unit 3), the primary care physician establishes a therapeutic relationship with the patient. He has 4 treatment options: watchful waiting, psychological interventions, pharmacotherapy, and referral to a psychiatrist.^{2,5}

ESTABLISH A THERAPEUTIC RELATIONSHIP AND PSYCHOEDUCATION

The establishment of a therapeutic relationship is often very helpful to a depressed patient. Family Practitioners are usually very skilled in establishing rapport with the patients.

Maintain good eye contact and have an attentive body language by leaning forward and provide affirmative nods as the patient speaks. Very often it is not only what is said that is important but how it is said. Maintain a warm, relaxed tone and this will encourage your patient to be more forthcoming and receptive towards you. It is often a source of great relief just to be able to find an empathetic medical professional who is willing to listen without judging and who aims to understand.

Allow the patient to ventilate and avoid providing direct solutions but instead increase their awareness of their own perceptions and resources, and to help them problem solve. This would lead to increased self-esteem and help develop independence and confidence to meet future challenges positively. It would also be good to summarise and paraphrase what the patient has said. It helps to consolidate their thoughts and it also helps them feel understood.

Psycho-education by helping the patient understand their condition better can help debunk myths about the condition and de-stigmatise fears associated with having a mental condition. I found it helpful to use simple analogies like diabetes in helping patient's to understand that depression like diabetes is due to a shortage of chemicals in the body, in this case serotonin in the brain, much akin to that of insulin in diabetes. Helping medicalise the condition also avoids patients seeing themselves as weak and this can go a long way in helping the patient accept treatment.

WATCHFUL WAITING

In the primary care setting there will be a number of patients who have a depressed state that fail to meet the standard of 4 or more distinct symptoms beyond depressed mood and anhedonia. Should antidepressives be prescribed? A scanty literature does not support antidepressive efficacy in such patients. The attending physician's judgment about whether symptoms will spontaneously resolve will determine whether

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medication is needed. Current data suggest that active treatment with antidepressives be considered only for those individuals with more severe functional impairment and a 4 to 8 week trial of support, education, and when appropriate, exercise for all others.^{6,5}

PSYCHOLOGICAL INTERVENTIONS

When is psychotherapy a better choice than pharmacotherapy? If the patient has overwhelming neurovegetative symptoms he or she needs pharmacotropic medications. If on the other hand, the patient has a barrage of negative thoughts or a severe life crisis psychotherapy may be more useful.

Psychological interventions in the primary care setting include the following:

- Supportive Counselling
- Interpersonal therapy
- Cognitive-Behaviour Therapy (CBT)
- Behavioural Therapy (BT)
- Other psychological therapies e.g. psychodynamic therapy

Supportive Counselling and Psycho-education

Supportive counseling focuses on helping the individual explore any problems they may have and to develop ways to resolve them.

Interpersonal therapy

As its name suggests, interpersonal therapy focus on interpersonal relationships and explore links between depressed mood and a severe life crisis (e.g., marital strife, job loss, or loss of a loved one, interpersonal relationships with significant others, and long term difficulties in forming and maintaining relationships).^{7,8,5} Interpersonal therapy helps generate new skills for asserting personal needs and engaging more constructively, even confrontationally, with significant others at work and at home.⁵

Cognitive Behaviour Therapy (CBT)

CBT is perhaps one of the psychological interventions with the biggest evidence base. CBT is a form of psychological therapy, conceptualised 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.

For example, a student who has failed an examination may think, “I am stupid and useless and will never amount to anything”. This thought makes disempowers him and 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.

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 hourly 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. In the primary care setting, the number of sessions may be reduced to six and are called brief psychological therapy⁴. Studies suggest that a combination of CBT and medication is the most effective treatment for depression in the long-term.²

Behavioural Therapy (BT)

Behavioural interventions include contextual approaches based on functional analyses (contingency management and behavioural activation, social skills training, self control therapy, and problem solving therapy (PST), and behavioural marital therapy (BMT).⁸

Other psychological therapies

Although short-term psychodynamic and emotion-focussed psychotherapies may also be efficacious in treating major depressive disorder, less evidence supports these strategies for the treatment of depressed patients.^{8,2} In psychodynamic therapy, the approach is to bring repressed thoughts and feelings into consciousness and to develop new ways of tolerating and coping with the emotional pain.⁷

PHARMACOTHERAPY

The mainstay of pharmacotherapy for depression are the antidepressants. These are effective in both anxiety and depression. In terms of efficacy, all the various anti-depressants are actually equal or close to equal at about 60-70%. They vary more in terms of their side-effect profiles, drug interactions and time to onset of action.⁹ Most anti-depressants would take on the average 2-4 weeks to take effect and this should be explained to the patient at the onset, some patients may start to feel changes as early as after the first week. It may however take 8-12 weeks for the full effect of the medication to be felt.

The short term side effects usually also subside after this time, so it may be helpful to tell the patient about these so they know what to expect. I have found compliance to be better when the patient is educated about this beforehand. Of course it may not be necessary to explain every single side effects but the more commonly experienced ones should be dealt with so that the patient is able to anticipate these should they arise.

Commonly Used Classes of Antidepressants

The common examples of the commonly used classes of antidepressants, actions and precautions are summarized in Table 1.

Table 1. Classes of anti depressants

Class	Examples	Action	Precautions
Tricyclic antidepressants	Amitriptyline, Imipramine, Clomipramine, Nortriptyline, Dothiepin	Inhibit serotonin & NE uptake; anticholinergic-antimuscarinic; alpha 1-adrenergic antagonist; antihistamine	Anticholinergic effects, postural hypotension, confusion, weight gain, CVS effects, toxicity in overdose
MAOIs	Phenelzine, Tranylcypromine	MAO inhibition causes NE accumulation	Postural hypotension, dietary restrictions, drug interactions, sexual dysfunction
SSRIs	Fluoxetine, Fluvoxamine, Paroxetine, Citalopram, Escitalopram, Sertraline	Selectively inhibits 5HT reuptake	Agitation, akathisia, anxiety, insomnia, sexual dysfunction, GI effects, withdrawal effects
SNRI	Venlafaxine, Duloxetine	Inhibits 5HT and NE reuptake	Same as SSRIs (low doses), hypertension, insomnia, agitation, headache (high doses)
NaSSA	Mirtazapine	Alpha2, 5HT1, 5HT2, H1 antagonism → Enhances NE & 5HT neurotransmission	H1 antagonism – sedation, weight gain
NDRI	Bupropion	NE and Dopamine reuptake inhibitor	Stimulation, agitation, nausea, insomnia, seizures (4/1000)

(1) Selective serotonin reuptake inhibitors (SSRIs)

Selective serotonin reuptake inhibitors (SSRIs) are a family of antidepressants considered to be the current standard of drug treatment. SSRIs are said to work by preventing the reuptake of serotonin (5HT) by the presynaptic nerve, thus maintaining higher levels of 5-HT in the synapse.

(2) Serotonin-norepinephrine reuptake inhibitors (SNRIs)

Serotonin-norepinephrine reuptake inhibitors (SNRIs) such as venlafaxine (Effexor) and duloxetine (Cymbalta) are a newer form of antidepressant that works on both norepinephrine and 5-HT. The dual action of these drugs may make them more activating and may also be helpful in helping patients who may be suffering from chronic pain¹⁰.

(3) Noradrenergic and specific serotonergic antidepressants (NASSAs)

Noradrenergic and specific serotonergic antidepressants (NASSAs) form a newer class of antidepressants which purportedly work to increase norepinephrine (noradrenaline) and serotonin neurotransmission by blocking presynaptic alpha-2 adrenergic receptors while at the same time minimising serotonin related side-effects by blocking certain serotonin receptors. The only example of this class in clinical use is mirtazapine (Remeron).

(4) Norepinephrine-dopamine reuptake inhibitors

Norepinephrine-dopamine reuptake inhibitors such as bupropion (Wellbutrin, Zyban) inhibit the neuronal reuptake of dopamine and norepinephrine (noradrenaline).

(5) Tricyclic antidepressants (TCAs)

Tricyclic antidepressants are the oldest and include such

medications as amitriptyline and dothiepin. Tricyclics block the reuptake of certain neurotransmitters such as norepinephrine (noradrenaline) and serotonin.

(6) Useful information about other classes of antidepressants

Venlafaxine (Effexor), Duloxetine (Cymbalta) and Mirtazapine (Remeron) also target the Noradrenaline system. Mirtazapine does not have sexual dysfunction as one of its side effects and is helpful for patients who experience this with the other drugs. There is however prominent sedation 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 (Wellbutrin) can be more agitating, especially in patients with co-occurring anxiety, but is helpful for patients with problems of poor drive and motivation arising from the depression. It has also been marketed as Zyban for smoking cessation.

(7) Newer antidepressants that have entered the market

Desvenlafaxine (Pristiq) is a newer anti-depressant which also belongs in the SNRI group of medications. It is the major active metabolite of venlafaxine. Aglomelatine (Valdoxan) is a novel anti-depressant in that it targets both serotonin and melatonin receptors. It has a significantly lower incidence of both sexual dysfunction and weight gain and may be helpful in restoring sleep architecture.¹¹

More details on the SSRIs and TCAs

The SSRIs are the most commonly used as well as the tricyclic antidepressants as they have been around the longest and are still rather commonly used.

Selective Serotonin re-uptake inhibitors (SSRI)

SSRIs are recognised as first-line medication for the treatment of 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 or more tolerable side effects, and are much less lethal in cases of overdose.

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 energising 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 are already on more complicated drug regimes due to other medical conditions, because it causes few drug-drug interactions.

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:

- It may take two to four weeks before their mood improves palpably
- 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.
- 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

Table 2. The SSRIs

Generic name	Trade name(s)	Starting dose	Dose (mg day)
Fluoxetine	Prozac, Magrilan	10-20	20-60
Fluvoxamine	Faverin, Luvox	25-50	50-300
Escitalopram	Lexapro	5-10	10-20
Sertraline	Zoloft	25-50	50-200
Paroxetine	Seroxat, Paxil	12.5-25	25-75

Tricyclic Antidepressants (TCAs)

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.

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.

Phases of treatment: response, remission and duration of treatment

The management of the patient with MDD can be framed in the context of 3 phases:

Acute phase. The acute phase of treatment is focused on the acutely depressed patient. Patients should be given an adequate course of treatment. In cases of treatment failure (that is, no response after 4-8 weeks of treatment), raising antidepressant doses to the optimal tolerable level should be considered before switching to another drug. For partial responders, combination of antidepressant medications can be considered before switching medications. The psychiatrist colleague may need to be consulted. ECT may be needed for severe depression, presence of psychotic features or catatonia.

Remission phase. 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.

The maintenance phase. 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.

REFERRAL TO THE PSYCHIATRIST

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.

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.

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.

A summary of situations when referral is recommended are:

- Suicide risk is present
- Need for hospitalisation
- Failure of adequate medication trial
- Complicated medical or psychiatric morbidity including antepartum or postpartum depression
- Need for combined medication & psychotherapy
- Evaluation for pharmacotherapy
- Need for ECT.

CONCLUSIONS

Depressive disorders are common. Many can be treated in the GP setting. A strategy of establishing a therapeutic relationship, psychoeducation, and the consideration of the 4 options of watchful waiting, psychotherapy, pharmacotherapy, and referral to the psychiatrist provides a framework of caring for this group of patients in primary care.

REFERENCES

1. Kessler RC, Chiu WT, Demier O, et al. Prevalence, severity, and comorbidity of 12 month DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry* 2005; 62(6):617-27.
2. Soleimani L, Lapidus KA, Iosifescu DV. Diagnosis and treatment of major depressive disorder. *Neurol Clin*. 2011 Feb;29(1):177-93, ix. Review. PubMed PMID: 21172578.
3. Pincus HA, Zarin DA, Tanielian TL, et al. Psychiatric patients and treatments in 1997: findings from the American Psychiatric Practice Research Network. *Arch Gen Psychiatry* 1999;56(5):441-9.
4. Cape J, Whittington C, Buszewicz M, Wallace P, Underwood. Brief psychological therapies for anxiety and depression in primary care: meta-analysis and meta-regression. *L. BMC Med*. 2010 Jun 25;8:38. Review. PMID:20579335
5. Bostwick JM. A generalist's guide to treating patients with depression with an emphasis on using side effects to tailor antidepressant therapy. *Mayo Clin Proc*. 2010 Jun;85(6):538-50. Epub 2010 Apr 29. Review. PubMed PMID: 20431115; PubMed Central PMCID: PMC2878258.
6. Ackermann RT, Williams JW Jr. Rational treatment choices for non-major depression in primary care: an evidence based review. *J Gen Intern Med* 2002;17(4):293-301.
7. Samad Z, Brealey S, Gilbody S. The effectiveness of behavioural therapy for the treatment of depression in older adults: a meta-analysis. *Int J Geriatr Psychiatry*. 2011 Feb 9. doi: 10.1002/gps.2680. PubMed PMID: 21308789.
8. Hollon SD, Ponniah K. A review of empirically supported psychological therapies for mood disorders in adults. *Depress Anxiety* 2010;27(10):891-932. PubMed PMID: 20830696
9. Cipriani A, Furukawa TA, Salanti G, Geddes JR, Higgins JP, Churchill R, Watanabe N, Nakagawa A, Omori IM, McGuire H, Tansella M, Barbui C. Comparative efficacy and acceptability of 12 new-generation antidepressants: a multiple-treatments meta-analysis. *Lancet*. 2009 Feb 28;373(9665):746-58. Review. PMID:19185342
10. Scholz BA, Hammonds CL, Boomershine CS. Duloxetine for the management of fibromyalgia syndrome. *J Pain Res*. 2009 Jul 21;2:99-108. PMID:21197298
11. Zajecka J, Schatzberg A, Stahl S, Shah A, Caputo A, Post A. Efficacy and safety of agomelatine in the treatment of major depressive disorder: a multicenter, randomised, double-blind, placebo-controlled trial. *J Clin Psychopharmacol*. 2010 Apr;30(2):135-44. PMID:20520286

LEARNING POINTS

- **Depressive disorders are common.**
- **Many patients with depressive disorder can be treated in the GP setting.**
- **A combined approach of establishing a therapeutic relationship, psycho-education, and appropriate use of psychotropic medications give the best results.**
- **Know the indications for referral to a psychiatrist.**

UNIT NO. 5

MANAGEMENT OF BIPOLAR DISORDER

Dr Mok Yee Ming

ABSTRACT

Bipolar disorder is a chronic relapsing and remitting disorder. Poorly controlled bipolar disorder results in increased morbidity with a poorer quality of life. There is increased suicide risk. Long-term treatment and support are required to minimise the risk of recurrence and optimise quality of life, and social and personal functioning. The core features of bipolar disorder – its recurrent and cyclic nature – can make it a challenging illness to manage. Whilst medications do play a large role in the management, pharmacologic treatment is further complicated by the risk of inducing opposite or polar changes in mood state. Psychosocial interventions should not be neglected.

Keywords: Bipolar disorder, Management, Mood stabilizers, Antidepressants, Psychological intervention

SFP2011; 37(4): 27-30

INTRODUCTION

Bipolar is a complex disorder. The core features of bipolar disorder – its recurrent and cyclic nature – can make it a challenging illness to manage. Pharmacologic treatment is further complicated by the risk of inducing opposite or polar changes in mood state.

Nonetheless, it can be very fulfilling to treat in a primary care setting as stable patients can have a very good quality of life.

The benefits of treatment by a primary care physician are multifold. Treatment is easily available, there is less stigmatization and there is a chance for good rapport with the physician that not only improves compliance but allows for early relapse warning.

PHARMACOLOGICAL THERAPIES

The drug treatment of an acute manic or hypomanic episode depends on the severity of symptoms. Acute manic and mixed episodes of sufficient severity can constitute medical emergencies requiring hospitalization to ensure safety and enhance rapid recovery.

In the initial management of acute behavioural disturbance or agitation, the short-term use of a benzodiazepine (such as lorazepam) should be considered as an adjunct to the treatment.

If a patient develops acute mania, treatment options include starting an antipsychotic and/or mood stabilisers such as valproate or lithium. Options include:

- prescribing an antipsychotic if there are severe manic symptoms or marked behavioural disturbance as part of the syndrome of mania.
- prescribing mood stabilisers (Lithium, Valproate, lamotrigine or carbamazepine).
- Or a combination for more complex cases.

Bipolar depression is associated with the same substantial risks of morbidity and mortality as major depressive disorder. Pharmacologic agents with mood-stabilizing properties form the foundation of treatment of this illness, but psychotherapy can be helpful.

Managing depressive symptoms in bipolar disorder has some similarities to managing unipolar depression. However, in bipolar disorder antidepressants carry the risk of 'switching' or inducing a manic episode. There is therefore only a limited role for maintenance treatment with antidepressants in bipolar depression.

Patients with bipolar disorder typically experience more fluctuations in both the severity and duration of symptoms than people with unipolar depression, this result in higher morbidity.

When initiating antidepressant treatment for a patient who is not on a mood stabiliser, prescribers should explain the risks of switching to mania. Antidepressant treatment should begin at a low dose and be increased gradually if necessary. Furthermore, such treatment should be given for the minimum duration required to achieve a stable, normal mood state.

ELECTROCONVULSIVE THERAPY (ECT)

Electroconvulsive therapy (ECT) is recommended only to achieve rapid and short-term improvement of severe symptoms after an adequate trial of other treatment options has proven ineffective and/or when the condition is considered to be potentially life-threatening, in individuals with:

- severe depressive illness.
- catatonia.
- a prolonged or severe manic episode.

AGITATED BEHAVIOUR

The management of disturbed behaviour in bipolar disorder should start with psychosocial and environmental interventions aiming to de-escalate any potential violent situations.

Severe behavioural disturbance in people with bipolar disorder should normally be treated first with oral medication,

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such as lorazepam or an antipsychotic, or a combination of an antipsychotic and a benzodiazepine. Intramuscular medications may be required in severe cases. An urgent referral to a psychiatrist or hospital is necessary.

MAINTENANCE PHASE

Bipolar disorder is a chronic relapsing and remitting disorder. Studies have shown that poorly controlled bipolar disorder results in increased morbidity with a poorer quality of life. There is increased suicide risk. Long-term treatment and support are required to minimise the risk of recurrence and optimise quality of life, and social and personal functioning. The primary long-term treatments are pharmacological (mood stabilisers), but psychosocial interventions do have an important role to play.

MOOD STABILIZERS

Antiepileptics (sodium valproate, lamotrigine and carbamazepine)

Antiepileptics (sodium valproate, lamotrigine and carbamazepine), are used as mood stabilisers in the treatment of bipolar disorder. However, it has been reported by the US FDA that patients taking antiepileptic drugs have about twice the risk of suicidal thoughts and behaviours (0.43%) compared with patients receiving placebo (0.22%). Even though this is still a small risk, it is recommended by the FDA that clinicians explain the benefits and risks of antiepileptic use.

Sodium Valproate

Sodium valproate has been found to be superior to placebo in the treatment of acute mania in two randomised controlled trials and in a systematic review. There is no difference in efficacy among sodium valproate, lithium and carbamazepine in the treatment of acute mania.

A Cochrane systematic review of valproate showed no significant difference in preventing relapse as compared to lithium.

Its benefit at prevention of depressive episodes is marginal as well.

Carbamazepine

Two randomized controlled trials have found carbamazepine to be more effective than placebo in the treatment of acute mania. However, the use of carbamazepine should be balanced with its potential side effects.

Lamotrigine

A systematic review showed that lamotrigine significantly reduced depressive relapses. A randomised controlled trial with bipolar I patients found that after stabilization, continuation

with lamotrigine delayed the onset of the next depressive episode. Unfortunately, there is little evidence that it helps with manic relapses.

Lithium

Although lithium salts have been in use for various conditions since the 1800s, the use of lithium in the treatment of bipolar disorder was discovered in 1949. However, the United States Food and Drug Administration (FDA) only approved it for the treatment of mania in 1970. Lithium has been found to be superior to placebo in the treatment of acute mania in a meta-analysis of 12 trials. In this study, it was also found to be superior to chlorpromazine.

Three systematic reviews indicated that lithium therapy is effective at reducing relapse in patients with bipolar disorder. The effect of lithium is greater for prevention of manic and hypomanic episodes and marginal with respect to depressive episodes. Lithium is associated with an increased risk of manic relapse on discontinuation after less than 2 years on treatment.

ANTIDEPRESSANTS

Studies have shown that antidepressants offer minimal to no significant continuing clinical benefits to patients who have had 8-week post bipolar depressive episode remission. There are no robust effects on depressive episode prevention or enhanced remission rates with continued antidepressant use.

However, abrupt or rapid discontinuation or clinically effective antidepressant treatment was associated with a significantly shorter time to first new episode of major depression.

Selective serotonin reuptake inhibitors (SSRIs) have been associated with less "switching" compared with other antidepressants.

Hence, antidepressants should be used cautiously in patients with bipolar disorder and for the shortest period possible.

ANTIPSYCHOTICS

Antipsychotic drugs include typical antipsychotics, such as haloperidol, as well as atypical antipsychotics, such as olanzapine and quetiapine. As their name suggests, they are used in the treatment of psychosis. However, they have other indications as well.

Unfortunately, they may have side effects. Typical antipsychotics, such as haloperidol, are associated with extra-pyramidal side effects. Atypical antipsychotics, such as olanzapine, are associated with weight gain, hyperglycaemia and hypercholesterolemia.

Haloperidol, olanzapine and quetiapine were found to be effective in reducing agitation and aggression as shown in randomised controlled trials.

Recent randomised controlled trials have showed that olanzapine is effective at preventing relapse. Another trial showed that aripiprazole is effective as maintenance therapy in bipolar patients with recent manic or mixed episode. A randomised controlled trial also showed that quetiapine in combination with lithium or valproate is effective at preventing relapse in patients with bipolar I disorder.

BENZODIAZEPINES

Benzodiazepines are useful in treating anxiety, insomnia, agitation, seizures, muscle spasms and alcohol withdrawal. They are also useful in preparation for medical and dental procedures. Long-term use is discouraged due to possible adverse psychological and physical effects, including tolerance, physical dependence and withdrawal symptoms upon cessation of use.

In a meta-analysis, clonazepam and lorazepam, in both oral and intramuscular forms, have been shown to be effective in the acute treatment of agitation in mania. Advice should be given to the patient and caregivers with regards to its risk of tolerance as well as its role as a short-term acute treatment.

PSYCHOLOGICAL THERAPIES

Psychological interventions can help to improve the condition of a patient with bipolar disorder and the course of the illness, and maintain psychosocial functioning. In the studies evaluating the use of psychological interventions in patients with bipolar disorder, the majority has to do with treatment during the depressive episodes and as part of the maintenance treatments. Due to the nature of a patient in a manic phase, it is difficult to do psychological intervention during such times.

The aim of psychoeducational interventions is to provide patients (and sometimes family members and/or caregivers) with information about their illness and its treatment.

Psychological intervention should include training in recognizing early warning signs of relapse of depression or mania, in order to prevent recurrence of illness. Such early warning signs of depression or mania are often different for different people, suggesting that individuals have distinctive “relapse signatures”.

Nevertheless, some common mania prodromes include:

- being more sociable.
- increased self-worth.
- racing thoughts.
- increased optimism.
- irritability.
- increased activities.
- decreased need for sleep.
- senses sharper.

Common depression prodromes include:

- loss of interest in activities or people.
- not being able to put worries aside.
- feeling sad.
- wanting to cry.
- interrupted sleep.

There is evidence for the effectiveness of the following forms of psychotherapy for bipolar depression:

- Family-focused therapy.
- Interpersonal and social rhythm therapy.
- Cognitive behaviour therapy.

Interpersonal social rhythms therapy was designed specifically for treating individuals with bipolar disorder. This approach evolved from Interpersonal Therapy (IPT). As with IPT, treatment focuses on four interpersonal problem areas (grief, interpersonal role transition, role dispute and interpersonal deficits). Issues in these areas are addressed by various strategies, which include eliciting and defining the salient problem area, followed by supported grieving/emotional processing and problem solving.

In addition to these traditional aspects of interpersonal therapy, interpersonal social rhythms therapy focuses on the regularity of daily activities. It prioritises the maintenance of structure and routine in these daily activities in spite of fluctuations in mood, for example those caused by life events.

Cognitive behavioural therapy aims to change dysfunctional cognitive styles and behaviour in order to improve emotional states.

Cognitive behavioural therapy focuses on helping patients detect early warning signs of depression and mania, and using cognitive behavioural strategies to improve mood when low, and reduce highs when manic.

As effective family functioning can maintain a person's psychological balance, family interventions may help relatives and caregivers to care for and support patients with bipolar disorder. Family therapy can include very different kinds of interventions from diverse theoretical backgrounds.

CONCLUSIONS

Bipolar disorder is a complex mental disorder requiring a holistic approach to treatment. Whilst medications do play a large role in the management, psychosocial interventions should not be neglected.

REFERENCES FOR FURTHER READING

1. MOH. CPG on Bipolar Disorder. MOH: Singapore 2011
2. MOH. Chronic Disease Management Programme: Dementia and Bipolar Disorder. Handbook for Healthcare Professionals. MOH: Singapore, 2011.

LEARNING POINTS

- **Bipolar disorder is a chronic relapsing and remitting disorder and poorly controlled bipolar disorder results in increased morbidity and increased suicide risk.**
 - **Long-term treatment and support are required to minimise the risk of recurrence and optimise quality of life, and social and personal functioning.**
 - **In the initial management of acute behavioural disturbance or agitation, the short-term use of a benzodiazepine (such as lorazepam) should be considered as an adjunct to the treatment.**
 - **If a patient develops acute mania, treatment options include starting an antipsychotic and/or mood stabilisers such as valproate or lithium.**
 - **Managing depressive symptoms in bipolar disorder has some similarities to managing unipolar depression but in bipolar disorder, antidepressants carry the risk of 'switching' or inducing a manic episode.**
 - **Electroconvulsive therapy (ECT) is recommended only to achieve rapid and short-term improvement of severe symptoms after an adequate trial of other treatment options has proven ineffective and/or when the condition is considered to be potentially life-threatening.**
 - **The management of disturbed behaviour in bipolar disorder should start with psychosocial and environmental interventions aiming to de-escalate any potential violent situations and an urgent referral to a psychiatrist or hospital is necessary.**
 - **The primary long-term treatments are pharmacological (mood stabilisers) and antiepileptics (sodium valproate, lamotrigine and carbamazepine) , are used as mood stabilisers in the treatment of bipolar disorder.**
 - **Antipsychotic drugs include typical antipsychotics, such as haloperidol, as well as atypical antipsychotics, such as olanzapine and quetiapine.**
 - **Psychological interventions can help to improve the condition of a patient with bipolar disorder and the course of the illness, and maintain psychosocial functioning.**
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ABSTRACT

Age and other physical attributes may affect the presentation and management of depressive and bipolar disorders. Three of these populations are discussed in this paper.

In young patients, mood symptoms are less clear-cut than in adults, and pharmacological treatment, if used, should be prescribed at low doses, with close observation for side effects.

In the perinatal population, the diagnosis of depression hinges more on emotional than physical symptoms, as the latter may be a consequence of the gravid state. Treatment of mood disorders in this population is a delicate balance between the timely amelioration of harmful symptoms and the prevention of medication side effects in the child.

In the elderly, sensitivity to the possible existence of depression is important for those who present primarily with chronic illnesses or recent bereavement. Mood symptoms may masquerade as physical complaints and medications should be used with care because of age-retarded drug metabolism.

Keywords: Children, adolescents, perinatal, elderly

SFP2011; 37(4): 31-34

INTRODUCTION

Major depressive and bipolar disorders sometimes affect patients who, by virtue of age or other physical attributes, present with different variants of symptoms, or require different forms of treatment. Three special populations are discussed in this paper:

1. Children and adolescents.
2. Women during the perinatal period.
3. Elderly patients.

It is unlikely for the full range of therapeutic options to be provided in the primary care setting, given its restrictions in terms of allied health resources and the need for psychotropic medications. Most of these patients will be more effectively managed by specialised psychiatric care providers. Nonetheless, the following discussion may be used to facilitate the recognition, initial treatment and psychoeducation of mood disorders in these populations by the family physician.

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I. CHILDREN AND ADOLESCENTS**Assessment**

Very young patients will probably require the presence of their parents, while older ones may prefer a private consultation. The style of communication should be tailored to suit the patient's age and attention span.

Assessment should include the patient's parents, partly because a positive family history of mood disorders raises the likelihood of a diagnosis, and also because it may contribute to a difficult home environment that is not conducive to recovery.

Depression

As opposed to adult patients, depression in the young may manifest as irritability (instead of tearfulness and despondency) and failure to make expected weight gains (instead of outright weight loss)¹.

In many cases, the provision of a professional listening ear in a safe environment will prove therapeutic, as will advice recommending regular and adequate nutrition, rest and exercise. The next line of treatment is psychological therapy, which usually comprises cognitive behavioural therapy, family therapy and/or interpersonal therapy².

Antidepressants are effective in severe cases but they must be used with caution because of an association with suicidal thoughts. The US Food and Drug Administration's (FDA) medication guide³ highlights an analysis that revealed that 4% of young patients on antidepressants developed treatment-emergent suicidal thoughts, compared to 2% on placebo⁴. This finding led to black box warnings on all prescription antidepressants and an FDA-issued public health advisory on their safety risk in young adults up to the age of twenty-five.

These developments imposed restrictions on the management of depression, which, by itself, definitely increases the risk of suicide. They also caused controversy because the highlighted analysis examined a limited number of antidepressants, and none of the patients studied actually committed suicide. However, these warnings serve as a timely reminder that there are drawbacks as well as advantages to using antidepressants in young patients. They do not mean that medication can never be used in this population. On the contrary, it can be (and has been) successfully employed in conjunction with cautious measures, such as small doses, frequent follow-up and careful observation for side effects.

There are indeed some pharmacological options – such as tricyclic antidepressants⁵ – that are best avoided in young patients. Among the rest, fluoxetine has emerged as the one FDA-approved antidepressant that produces more benefit than harm in children. National Institute of Health and

Clinical Excellence (NICE) guidelines recommend a starting dose of 10mg daily, with an increase to 20mg daily after one week if necessary, and with consideration of lower doses for smaller children. Another FDA-approved option for patients aged twelve and above is escitalopram (Lexapro). Patients and their parents should be advised of the characteristic delay in the onset of antidepressant effect, in addition to possible side effects. Subsequent follow-up should take place every one to two weeks for a few months, to monitor for symptom progress, side effects and treatment-emergent suicidal thoughts.

Bipolar disorder

Bipolar disorders – especially bipolar II disorder – are more difficult to diagnose as they may manifest as mixed or psychotic symptoms⁶. There may be other explanations for disordered mood and behaviour, such as social stressors, physical illness, substance use, learning difficulties or attention deficit hyperactivity disorder.

Pharmacological treatment of acute mania comprises the same medications as in adult patients, but at lower doses and with close observation for side effects. Patients taking atypical antipsychotics should have their weight and prolactin levels monitored. If possible, valproate should be avoided in young female patients because of its possible long-term impact on fertility⁷.

II. WOMEN DURING THE PERINATAL PERIOD

Antenatal depression

Overlaps exist between depressive symptoms and the physiological changes of pregnancy, particularly in terms of sleep patterns, weight and energy levels. Therefore, the diagnosis of antenatal depression, which occurs in 12.2% of local women⁸, hinges largely on emotional symptoms, such as anhedonia, negative cognition and suicidality. These symptoms usually have multiple causes, such as the physical demands of pregnancy, stress and anxiety from preparing for the baby's arrival and changes in relationship, career and financial priorities.

A depressed mother may eat or rest poorly, default antenatal follow-up and self-medicate with alcohol, cigarettes or other substances. In addition, her low mood may impair her ability to form an attachment to her unborn child. Antenatal depression is also associated with risks of impaired fetal growth and premature labour, and is a major risk factor for subsequent postnatal depression⁹. In rare cases, a severely depressed pregnant woman may develop psychotic symptoms and contemplate harmful acts.

Fortunately, prompt recognition usually results in good response to treatment. Patients with milder episodes often recover with psychological support and therapy to help them make sense of their difficult experience. Severely depressed patients may benefit from treatment with antidepressants, but

these must be used with caution. Selective serotonin reuptake inhibitors (SSRIs), for example, have been linked to persistent pulmonary hypertension of the newborn and neonatal behavioural syndrome, particularly when administered in late gestation¹⁰. Paroxetine, in particular, should be avoided in the first trimester because it is associated with odds ratios of 1.46 for cardiac defects and 1.24 for aggregated congenital defects¹¹. Antidepressants, if used, should therefore be prescribed at the lowest dose possible, especially during early pregnancy, and patients taking them should be reviewed regularly and often.

Postnatal depression

Although DSM-IV-TR diagnostic criteria define the onset of postnatal depression as four to six weeks post-delivery, emerging evidence suggests it may actually occur as soon as two weeks, or as much as one year, after birth¹².

As with antenatal depression, its causes are multiple. A new mother can become fatigued and overwhelmed by the burden of infant care, especially as it may not allow her sufficient sleep. She is also undergoing physical changes, such as hormonal and weight fluctuations and recovery from the birthing process, and these may affect her self-esteem and libido. At the same time, she often has to manage shifts in her relationship, career and financial priorities, in addition to other events that may unexpectedly crop up, such as breastfeeding problems and illness in the baby.

As many as two out of three mothers may experience baby blues¹³, which is a mild state of tearfulness and anxiety very soon after giving birth, because of tiredness and self-doubt about the new maternal role. Fortunately, this state lasts only a few days and resolves without formal medical treatment, especially if the mother has a supportive family.

Postnatal depression, which affects 6.8% of local mothers⁸, is different from baby blues because it is more severe and of longer duration (at least two weeks). Left untreated, it may persist and impair the bonding between mother and baby, putting the child at risk for behavioural and emotional problems in the future⁹. Furthermore, because a depressed mother may not provide sufficient stimulation for her child, the cognitive development of the child may be affected. In rare cases, a severely depressed mother may become psychotic and start having suicidal or infanticidal thoughts. Yet, women with postnatal depression may find it difficult to acknowledge their difficulties and their need for help. In such cases, the use of a screening tool, such as the Edinburgh Postnatal Depression Scale, may be helpful in identifying and quantifying their symptoms.

Medication, when required for cases of greater severity, should be used with caution in breastfeeding mothers as a small percentage may be excreted into the breast milk. The milk/plasma drug concentration ratios for tricyclic antidepressants and SSRIs are generally low, although fluoxetine and sertraline are exceptions¹⁴ and should be avoided if possible. Most cases of postnatal depression respond well to supportive therapy and low-dose antidepressants.

Bipolar disorder

Medication is crucial in the treatment of bipolar disorder but it may affect fertility and pregnancy. Carbamazepine and lamotrigine are known to inhibit the desired effect of oral contraceptives¹⁵. On the other hand, antipsychotics and some antidepressants may cause hyperprolactinemia, and valproate, in comparison to other mood stabilisers, increases the relative risk of oligomenorrhea with hyperandrogenism by over seven-fold¹⁶.

When taken during pregnancy, mood stabilisers increase the risk of fetal malformations and perinatal complications. In particular, sodium valproate is associated with neural tube defects and neurodevelopmental abnormalities, while lithium carbonate is associated with Ebstein's anomaly¹⁷. Supplemental folate, taken from the periconceptional period, reduces the incidence of neural tube defects but does not prevent other ill-effects¹⁸.

Unfortunately, bipolar relapse is as likely to happen during pregnancy as in any other time, as shown by a study in which 52% of pregnant women and 58% of non-pregnant women with the illness relapsed when taken off medication, there being no statistical difference between the two groups¹⁹. Furthermore, pregnant women who stop taking their maintenance mood stabilisers experience over twice the risk of recurrence compared to those who continue taking medication²⁰. In addition, stopping medication during the postnatal period results in a 70% relapse rate, as this appears to be a time of particular vulnerability to mood disorders¹⁹.

Because of these complications, the decision regarding management of bipolar disorder in pregnancy must be carefully discussed with the patient and her partner. Some patients may choose to stop taking mood stabilisers during pregnancy while others may opt to reduce or maintain their doses. If mood stabilisers are to be reduced or stopped, this should be done gradually, as abrupt discontinuation (i.e. over a fortnight or less) more than halves the time to 25% recurrence¹⁹.

Instead of mood stabilisers, antipsychotics – such as chlorpromazine, haloperidol and quetiapine – may be used to treat bipolar episodes²¹. Reviews of small studies and case reports support their efficacy, although the use of atypical antipsychotics will necessitate monitoring of the patient's weight, blood sugar and blood pressure²². Another alternative is electroconvulsive therapy, which is effective for the same indications as in non-pregnant patients. Furthermore, it has relatively few side effects and it has not been implicated as a causal factor of congenital malformations²¹.

III. ELDERLY PATIENTS

Depression

Life events that occur with the passage of time – such as the death of a spouse, existential issues or health problems – may precipitate depression, as can medications such as beta-blockers and steroids. Because situations like these are not unexpected

in the twilight years, elderly patients may come to think that depression is a natural part of aging, particularly if they also happen to be socially isolated or homebound. Therefore, sensitivity to the possible existence of depression is important in the management of elderly patients who present primarily with chronic illnesses or recent bereavement.

Depression may manifest in an oblique manner in elderly patients; instead of outright sadness, they are more likely to present with physical complaints, self-neglect, poor energy and concentration, memory problems and feelings of hopelessness and anxiety. It may even resemble dementia in some cases – the term for cognitive impairment caused by depression is pseudodementia. Unlike actual dementia, however, it is of abrupt onset and resolves when the depression is treated.

When prescribed, medication should be initiated at lower doses and increased more slowly to compensate for slower drug metabolism. There is some evidence linking SSRIs to increased incidence of bone loss²³ and falls, and trazodone, mirtazapine and venlafaxine to higher risks of all-cause mortality. On the other hand, low-dose tricyclic antidepressants showed weaker associations with these adverse outcomes²⁴. However, it is difficult to apply these results to real life with absolute certainty because such studies may suffer from the confounding effects of depression and other medical conditions and medication.

In cases of severe depression, the patient may require additional treatment options, such as an antipsychotic, mood stabiliser or electroconvulsive therapy²⁵.

Bipolar disorder

Mania in the elderly may, in addition to classical symptoms, produce signs suggestive of neurologic impairment, confusion and disorientation. Because of this, clinical examination and investigations are necessary for the exclusion of dementia and delirium.

Medication is generally crucial to the treatment of bipolar disorder, but it can be difficult to prescribe because of the paucity of guidelines in this particular population. As in the younger adult population, lithium, valproate, lamotrigine, carbamazepine, antipsychotics and antidepressants exert beneficial effects on the relevant symptoms, and polypharmacy may be necessary, depending on each patient's individual presentation. However, as in depression, starting doses should be lower and upward titration should take place more slowly. Refractory cases may require electroconvulsive therapy or psychotherapy²⁶.

CONCLUSIONS

Although general concepts of management apply to the special populations of children and adolescents; women in the perinatal period; and the elderly, certain modifications are necessary in order to provide treatment that is safe as well as effective. Because of the intensity of care that is therefore required, prompt referral to specialised psychiatric care is often beneficial, particularly for patients who are severely unwell.

REFERENCES

1. NIMH guideline on depression. US Department of Health & Human Services, National Institutes of Health. NIH Publication No. 11-3561, revised 2011.
2. NICE guideline on clinical management and service guidance – depression in children and young people. The British Psychological Society and The Royal College of Physicians, Sept 2005.
3. FDA medication guide about using antidepressants in children and teenagers, revised 2005. <http://www.fda.gov/downloads/drugs/drugsafety/informationbydrugclass/UCM161646.pdf>
4. Hammad TA. Review and evaluation of clinical data: relationship between psychotropic drugs and pediatric suicidality. Joint Meeting of the Psychopharmacologic Drugs Advisory Committee and Pediatric Advisory Committee, Sept 13-14, 2004.
5. Geller B, Reising D, Leonard HL, Riddle MA, Walsh BT. Critical review of tricyclic antidepressant use in children and adolescents. *J Am Acad Child Adolesc Psychiatry* 1999; 38(5): 513-6.
6. McClellan J, Kowatch R, Findling R. Practice parameter for the assessment and treatment of children and adolescents with bipolar disorder. *J Am Acad Child Adolesc Psychiatry* 2008; 1: 107-25.
7. NICE guideline on clinical management and service guidance – bipolar disorder. The British Psychological Society and The Royal College of Physicians, Jul 2006.
8. Chee CYI, Lee DTS, Chong YS, Tan LK, Ng TP, Fones CSL. Confinement and other psychosocial factors in perinatal depression: a transcultural study in Singapore. *J Affect Disord* 2005; 89: 157-66.
9. Leigh B, Milgrom J. Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC Psychiatry* 2008; 8: 24; DOI: 10.1186/1471-244X-8-24.
10. Tuccori M, Testi A, Antonioli L, Fornai M, Montagnani S, Ghisu N, Colucci R, Corona T, Blandizzi C, Del Tacca M. Safety concerns associated with the use of serotonin reuptake inhibitors and other serotonergic/noradrenergic antidepressants during pregnancy: a review. *Clinical Therapeutics* 2009; 31, Theme Issue.
11. Wurst KE, Poole C, Ephross SA, Olshan AF. First trimester paroxetine use and the prevalence of congenital, specifically cardiac, defects: a meta-analysis of epidemiological studies. *Birth Defects Research (Part A)* 2010; 88:159-70.
12. Gaynes BN, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, Brody S, Miller WC. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evidence Report/Technology Assessment No. 119. AHRQ Publication No. 05-E006-2. Rockville, MD: Agency for Healthcare Research and Quality, 2005 Feb 13.
13. Beck CT, Reynolds MA, Rutowski P. Maternity blues and postpartum depression. *J Obstet Gynecol Neonatal Nurs* 1992; 21: 287-93.
14. Eberhard-Gran M, Eskild A, Opsjordmoen S. Use of psychotropic medications in treating mood disorders during lactation. *CNS Drugs* 2006; 20(3): 187-98.
15. Gaffield ME, Culwell KR, Lee CR. The use of hormonal contraception among women taking anticonvulsant therapy. *Contraception* 2011; 83: 16-29.
16. Joffe H, Cohen LS, Suppes T, McLaughlin WL, Lavori P, Adams JM, Hwang CH, Hall JE, Sachs GS. Valproate is associated with new-onset oligoamenorrhea with hyperandrogenism in women with bipolar disorder. *Biol Psychiatry* 2006; 59: 1078-86.
17. Galbally M, Roberts M, Buist A, Perinatal Psychotropic Review Group. Mood stabilisers in pregnancy: a systematic review. *Australian and New Zealand Journal of Psychiatry* 2010; 44: 967-77.
18. De-Regil LM, Fernandez-Gaxiola AC, Dowswell T, Pena-Rosas JP. Effects and safety of periconceptional folate supplementation for preventing birth defects. *Cochrane Database of Systematic Reviews* 2010, Issue 10. Art No: CD007950; DOI: 10.1002/14651858.CD007950.pub2
19. Viguera AC, Nonacs R, Cohen LS, Tondo L, Murray A, Baldessarini RJ. Risk of recurrence of bipolar disorder in pregnant and nonpregnant women after discontinuing lithium maintenance. *Am J Psychiatry* 2000; 157: 179-84.
20. Viguera AC, Whitfield T, Baldessarini RJ, Newport DJ, Stowe Z, Remick A, Zurick A, Cohen LS. Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabiliser discontinuation. *Am J Psychiatry* 2007; 164: 1817-24.
21. Yonkers KA, Wisner KL, Stowe Z, Leibenluft E, Cohen L, Miller L, Manber R, Viguera A, Suppes T, Altshuler L. Management of bipolar disorder during pregnancy and the postpartum period. *Am J Psychiatry* 2004; 161: 608-20.
22. Gentile S. Antipsychotic therapy during early and late pregnancy: a systematic review. *Schizophrenia Bulletin* 2010; 36(3): 518-44.
23. Diem SJ, Blackwell TL, Stone KL, Yaffe K, Haney EM, Bliziotes MM, Ensrud KE. Use of antidepressants and rates of hip bone loss in older women. *Arch Intern Med* 2007; 167: 1240-5.
24. Coupland C, Dhiman D, Morriss R, Arthur A, Barton G, Hippisley-Cox J. Antidepressant use and risk of adverse outcomes in older people: population based cohort study. *BMJ* 2011; 343:d4551
25. Alexopoulos GS, Streim J, Carpenter D, Docherty JP; expert consensus panel for using antipsychotic drugs in older patients. *J Clin Psychiatry* 2004; 65(2): 5-99.
26. Aziz R, Lorberg B, Tampi RR. Treatments for late-life bipolar disorder. *Am J Geriatr Pharmacother* 2006; 4(4): 347-64.

LEARNING POINTS

- **Mood symptoms in children are less obvious than in adults, and should be elicited using age-appropriate communication, with parental involvement.**
- **In young patients, antidepressants should be used with caution because of their association with suicidal thinking, while anti-manic agents should be prescribed at low doses in conjunction with close observation for side effects.**
- **Perinatal depression is common, and is potentially harmful to both mother and baby.**
- **With psychological support and judicious pharmacotherapy, perinatal mood disorders often resolve satisfactorily.**
- **In the elderly, mood symptoms may manifest as physical discomfort and neurological symptoms, and may even be mistaken as a natural component of old age.**
- **Medications for mood disorders in the elderly should be initiated at low doses and increased slowly if needed.**
- **Mood disorders in all these populations frequently warrant prompt referral to specialised psychiatric care in view of the need for intensive treatment.**

ASSESSMENT OF 30 MCQs

FPSC NO : 46
MCQs on BIPOLAR DISORDER & DEPRESSION
Submission DEADLINE : 9 December 2011

INSTRUCTIONS

- To submit answers to the following multiple choice questions, you are required to log on to the College On-line Portal (www.cfps2online.org).
- Attempt ALL the following multiple choice questions.
- There is only ONE correct answer for each question.
- The answers should be submitted to the College of Family Physicians Singapore via the College On-line Portal before the submission deadline stated above.

1. For patient education on bipolar disorder, X has prepared patient education booklets for distribution to all chronic disease management clinics in Singapore. What is X?
 - A. Health Promotion Board.
 - B. Ministry of Health.
 - C. College of Family Physicians, Singapore
 - D. Ministry of Community, Youth and Sports.
 - E. Institute of Mental Health.
2. In the treatment algorithm for bipolar disorder, the diagnosis of bipolar disorder is based on one of the following criteria. Which is CORRECT?
 - A. DSM III-TR criteria.
 - B. ICD 10 criteria.
 - C. ICD 9 criteria.
 - D. MOH criteria.
 - E. IMH diagnostic criteria.
3. The Clinical Global Impression (CGI) Scale has 2 items, one item to indicate severity and one item to indicate improvement of the mental condition. Each item has X points for the primary care physician to choose from. What is X?
 - A. 5.
 - B. 6.
 - C. 7.
 - D. 8.
 - E. 9.
4. In the recommended investigations claimable for monitoring the care of bipolar disorder, the use of X is an indication for ordering a renal panel (urea/electrolytes/creatinine). What is X?
 - A. Haloperidol.
 - B. Risperidone.
 - C. Lamotrigine.
 - D. Carbamazepine.
 - E. Sodium valproate.
5. In the recommended investigations claimable for monitoring the care of bipolar disorder, the use of X is an indication for ordering thyroid function tests (TFTs). What is X?
 - A. Amitriptyline.
 - B. Risperidone.
 - C. Lamotrigine.
 - D. Lithium.
 - E. Sodium valproate.
6. About bipolar disorder, which of the following information is CORRECT?
 - A. It affects 10 to 20 % of the Singapore population.
 - B. Onset of the condition is around 40 to 50 years old.
 - C. The risk of relapse is as high as 50%.
 - D. One quarter of bipolar patients attempt suicide at least once.
 - E. The illness cost from bipolar disorder in the United States in the 1990s was 15.5 million US dollars.
7. About factors in the assessment of suicide risk in bipolar disorder, the presence of X identifies the patient as a high risk patient. What is X?
 - A. Moral objection to suicide.
 - B. Social isolation.
 - C. History of impulsive behaviour.
 - D. Unemployment
 - E. Previous good coping and functioning.
8. A diagnosis of bipolar disorder can be missed or delayed by as long as 2 years. Which of the following is the most common reason?
 - A. Symptoms are usually mild.
 - B. Presentation is usually late.
 - C. Misdiagnosed as unipolar depression.
 - D. Misdiagnosed as autism.
 - E. Misdiagnosed as hypothyroidism.

- 9. About the behaviour associated with bipolar disorder, which of the following is most likely to occur at the hypomanic phase of the illness?**
- Financially spendthrift.
 - Sexually promiscuous.
 - Overspeeding.
 - Outgoing and sociable.
 - Run-in with the law.
- 10. Pharmacological treatment is the cornerstone in preventing relapses in bipolar disorder but poor adherence is common. Which of the following factors is MOST likely to result in poor adherence to medications?**
- Personality disorder.
 - Older age.
 - Married.
 - Infrequent professional exchanges between family physician and the psychiatrist.
 - Continuity of care.
- 11. About the prevalence of depression in Singapore and worldwide, which of the following statement is CORRECT?**
- The lifetime prevalence of depression in the general Singapore population is 25%.
 - About one-quarter of patients with major depression go undetected in the primary care setting.
 - Major depression will become the leading cause of global disease burden by 2020.
 - In the primary care setting, about 10% of patients meet the criteria for major depression.
 - Depression is the third leading cause of long term disability.
- 12. About the diagnosis of depression in the primary care setting, which of the following is CORRECT?**
- Diagnosis of depression is easy in the teenage patient.
 - Life events being commonplace, are marginal triggers for depression.
 - Mild depression is easily recognized from the conversation with the patient.
 - Overtly depressed mood is common in chronic illness.
 - Depression is often missed because they present with somatic symptoms.
- 13. About suicide related to depression which of the following is CORRECT?**
- The risk of suicide is present only when the person is acute depressed.
 - Females are more common than males to have suicidal thoughts.
 - Suicide is more likely if there are organized thoughts or plans on going about completing the act.
 - Previous attempts at suicide marginally increases the risk of suicide.
 - Divorce is no longer a risk for suicide.
- 14. About the comorbidity of depression, studies show that up to X% of patients with panic disorder or obsessive compulsive disorder also have depression. What is X?**
- 20.
 - 25.
 - 30.
 - 35.
 - 40.
- 15. Madam Tan, aged 40, is not responding to the treatment of her depression. You make the decision to refer her to a psychiatrist. Which of the following be the LEAST helpful to encourage her to go and see the psychiatrist?**
- Demystify the psychiatric referral.
 - Address the patient's fears and concerns.
 - Educate the patient on the service that can be expected.
 - Explain the emotional factors of the illness.
 - Tell her that her illness is serious.
- 16. Major depressive disorder aggregates in families and it is X times more common in individuals with first degree biological relatives affected with this disorder compared with the general population. What is X?**
- 1.5 to 3.0
 - 1.7 to 3.2.
 - 2.0 to 3.5.
 - 2.7 to 3.7
 - 2.5 to 4.0
- 17. About the therapy for depression, the combination of X and medication is the most effective combination. What is X?**
- Interpersonal therapy.
 - Cognitive behavioural therapy (CBT).
 - Psychodynamic therapy.
 - Behavioural therapy.
 - Supportive counseling.
- 18. About behavioural therapy (BT), which of the following is CORRECT?**
- BT attempts to bring repressed thoughts and feelings into consciousness and develop ways of tolerating and coping with the emotional pain.
 - BT explores the links between depressed mood and a severe life crisis.
 - Problem solving therapy is an example of BT.
 - The goal of BT is to break the self fulfilling prophecy of negative automatic thoughts.
 - BT concentrates on emotion focused solutions to depressive thoughts.

- 19. About the antidepressants, they all have similarity in X. What is X?**
- Side-effect profiles.
 - Drug-interactions.
 - Time of onset of action.
 - Efficacy of 60-70% effectiveness.
 - Take an average of 4-6 weeks to take effect.
- 20. Antidepressants are classified into different classes depending on their biological action. Which of the following is an example of noradrenergic and specific serotonergic antidepressant?**
- Dothiepin.
 - Phenelzine.
 - Duloxetine.
 - Bupropion.
 - Mirtazepine.
- 21. About the use of electroconvulsive therapy (ECT) in bipolar disorder, which of the following is an indication?**
- Prolonged manic episode.
 - Moderately severe depressive illness.
 - Hypomania.
 - Agitated behaviour.
 - Apathy.
- 22. In bipolar disorder, which of the following is useful in acute mania?**
- Bupropion.
 - Carbamazepine.
 - Imipramine.
 - Sertaline.
 - Tranlycypromine.
- 23. About inducing a manic episode or “switching”, which of the following class of drugs is causative?**
- Benzodiazepines.
 - Atypical antipsychotics.
 - Antidepressants.
 - Mood stabilizers.
 - Typical antipsychotics.
- 24. About the antipsychotics in the management of bipolar disorder, which of the following induces a metabolic syndrome?**
- Lamotrigine.
 - Lithium.
 - Lorazepam.
 - Olanzapine.
 - Sodium valproate.
- 25. About the duration of treatment for major depressive disorder after remission is achieved, for the patient with a second episode of illness, the duration of further treatment with the antidepressant is X months without tapering the dose. What is X?**
- 3 to 6.
 - 6 to 12.
 - 9 to 18.
 - 12 to 24.
 - 15 to 30.
- 26. In the assessment of an adolescent for a diagnosis of bipolar disorder, which of the following raises the likelihood of such a diagnosis?**
- Learning difficulty.
 - Presence of physical illness.
 - A positive family history of mood disorders.
 - A difficult home environment.
 - A single parent family.
- 27. A 28-year-old Chinese patient is diagnosed to have antenatal depression. Paroxetine is prescribed. What of the following may occur in her child?**
- Floppiness in the child.
 - Cleft palate.
 - Persistent pulmonary hypertension in the newborn.
 - Cardiac defects.
 - Failure to thrive.
- 28. A 29-year-old mother is diagnosed to have postnatal depression. Her husband wants to know what is the local prevalence of this condition. Which of the following is CORRECT?**
- 6.8%.
 - 5.8%.
 - 4.8%.
 - 3.8%.
 - 2.8%.
- 29. About the presentation of depression in the elderly patient, which of the following is CORRECT?**
- Outright sadness is the usual presentation.
 - Abrupt onset of cognitive impairment.
 - Feelings of hopelessness is seldom encountered.
 - Poor energy is a late clinical feature.
 - Self neglect is a late clinical feature.
- 30. About therapy of bipolar disorder in the elderly patient, which of the following is CORRECT?**
- Medication is not crucial for control of the condition.
 - Lithium is not effective compared to case of the younger patient.
 - The refractory case may require electroconvulsive therapy.
 - The starting dose of antidepressant should be low and upward titration should be then be rapid.
 - Psychotherapy has little place in this age group.



R E A D I N G S

- A Selection of Ten Current Readings on Topics Related To Bipolar Disorder and Depression

A SELECTION OF TEN CURRENT READINGS ON TOPICS RELATED TO BIPOLAR DISORDER AND DEPRESSION –

some available as free full-text and some requiring payment

Selection of readings made by A/Prof Goh Lee Gan

READING 1 – Guide to primary care physician managing depression

Bostwick JM. A generalist's guide to treating patients with depression with an emphasis on using side effects to tailor antidepressant therapy. Mayo Clin Proc. 2010 Jun;85(6):538-50. Epub 2010 Apr 29. Review. PubMed PMID: 20431115; PubMed Central PMCID: PMC2878258.

URL: <http://www.mayoclinicproceedings/content/85/6/538.full.pdf+html> (payment required)

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ABSTRACT

This review provides a guide to the primary care physician for diagnosing and managing depression. To identify relevant articles, a PubMed search (ending date parameter, October 15, 2009) was conducted using the keywords depression, antidepressants, side effects, adverse effects, weight gain, sexual dysfunction, and sleep disturbance, and the reference lists of relevant articles were hand searched. This review explores the challenges in diagnosing depression that will and will not respond to antidepressants (ADs) and describes the value of 2-question screening instruments followed by in-depth questioning for positive screening results. It underscores the implications of veiled somatic presentations in which underlying depression is missed, leading to fruitless and expensive medical work-ups. Following this survey of the difficulties in diagnosing depression, the 4 options generalists have for treating a patient with depression are discussed: watchful waiting, antidepressant therapy, psychotherapy, and psychiatric referral. This review proposes that physicians, once they decide to prescribe, use AD side effects to advantage by selecting medications to minimize negative and maximize positive possibilities, thereby improving adherence. It focuses on the 3 most troubling adverse effects-sleep disturbance, sexual dysfunction, and weight gain. It provides AD-prescribing principles to assist primary care physicians in successfully managing depression and appropriately referring patients to a psychiatrist. Antidepressant therapy is not a panacea for treating patients with depression. An approach blending enlightened observation, medications, and psychotherapy often helps depressed patients recover to their former baselines. PMCID: PMC2878258 PMID: 20431115 [PubMed - indexed for MEDLINE]

READING 2 – Increasing recognition of mood disorders and risk for suicide

Lake CR, Baumer J. Academic psychiatry's responsibility for increasing the recognition of mood disorders and risk for suicide in primary care. Curr Opin Psychiatry. 2010 Mar;23(2):157-66. Review. PubMed PMID: 19926995.

URL: <http://ovidsp.tx.ovid.com.libproxy1/sp-3.4.2a/ovidweb.cgi> (payment required)

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ABSTRACT

PURPOSE OF REVIEW: The authors seek solutions to better meet the healthcare needs of depressed patients in primary care by improving the recognition of depression, other mood disorders and of a risk for suicide.

RECENT FINDINGS: For 25 years academic psychiatry and primary care have known that only 10-50% of depressed patients are adequately treated, primarily because of the failure to recognize depression. There are substantial negative consequences including suicide. Suicide occurs during depression so the recognition of depression is the critical first step to preventing suicide. Recently noted is that one barrier to recognition is the traditional, comprehensive, psychiatric interview taught in academic departments of psychiatry that is impractical in primary care settings because it takes too much time. Some brief, initial psychiatric techniques have been developed but these typically have been introduced in primary care training programs and not by departments of psychiatry.

SUMMARY: A verbal four-question, 90 s screen for depression may be acceptable for routine use in primary care because it typically requires only seconds to a few minutes. Introduction of such a screening instrument to medical students on psychiatry and primary care clerkships could increase the recognition of depression and reduce death by suicide. PMID: 19926995 [PubMed - indexed for MEDLINE]

READING 3 – Unrecognised bipolar disorder in primary care patients with depression

Smith DJ, Griffiths E, Kelly M, Hood K, Craddock N, Simpson SA. Unrecognised bipolar disorder in primary care patients with depression. Br J Psychiatry. 2011 Jul;199:49-56. Epub 2011 Feb 3. PubMed PMID: 21292927.

URL: <http://bjp.rcpsych.org/content/199/1/49.long> (payment required)

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ABSTRACT

BACKGROUND: Bipolar disorder is complex and can be difficult to diagnose. It is often misdiagnosed as recurrent major depressive disorder.

AIMS: We had three main aims. To estimate the proportion of primary care patients with a working diagnosis of unipolar depression who satisfy DSM-IV criteria for bipolar disorder. To test two screening instruments for bipolar disorder (the Hypomania Checklist (HCL-32) and Bipolar Spectrum Diagnostic Scale (BSDS)) within a primary care sample. To assess whether individuals with major depressive disorder with subthreshold manic symptoms differ from those individuals with major depressive disorder but with no or little history of manic symptoms in terms of clinical course, psychosocial functioning and quality of life..

METHOD: Two-phase screening study in primary care.

RESULTS: Three estimates of the prevalence of undiagnosed bipolar disorder were obtained: 21.6%, 9.6% and 3.3%. The HCL-32 and BSDS questionnaires had quite low positive predictive values (50.0 and 30.1% respectively). Participants with major depressive disorder and with a history of subthreshold manic symptoms differed from those participants with no or little history of manic symptoms on several clinical features and on measures of both psychosocial functioning and quality of life.

CONCLUSIONS: Between 3.3 and 21.6% of primary care patients with unipolar depression may have an undiagnosed bipolar disorder. The HCL-32 and BSDS screening questionnaires may be more useful for detecting broader definitions of bipolar disorder than DSM-IV-defined bipolar disorder. Subdiagnostic features of bipolar disorder are relatively common in primary care patients with unipolar depression and are associated with a more morbid course of illness. Future classifications of recurrent depression should include dimensional measures of bipolar symptoms. PMID: 21292927 [PubMed - indexed for MEDLINE]

READING 4 – Tools to improve differential diagnosis of bipolar disorder in primary care

Manning JS. Tools to improve differential diagnosis of bipolar disorder in primary care. Prim Care Companion J Clin Psychiatry. 2010;12(Suppl 1):17-22.
PubMed PMID: 20628502; PubMed Central PMCID: PMC2902192.

URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2902192/?tool=pubmed> (free full text)

Department of Family Medicine, University of North Carolina, Chapel Hill, and the Moses Cone Family Practice Residency and private practice, Greensboro, North Carolina.

ABSTRACT

Among patients seen in a primary care setting for depressive and/or anxiety symptoms, 20% to 30% are estimated to have bipolar disorder. Although relatively common in primary care settings, bipolar disorder is still underrecognized, primarily due to misdiagnosis as unipolar depression. Patients often seek treatment when they are depressed but uncommonly present with mania or hypomania, the specific markers of bipolar spectrum disorders. An awareness of the prevalence, characteristics, and predictors of bipolar disorder can help the primary care physician to properly differentiate between bipolar depression and unipolar depression. Completing a differential diagnosis of bipolar disorder requires obtaining a comprehensive patient history that investigates symptom phenomenology and associated features, family history, longitudinal course of illness, and prior treatment response. In addition to the clinical interview, the Mood Disorder Questionnaire and the World Health Organization Composite International Diagnostic Interview 3.0 can be useful tools for evaluating patients for bipolar disorder. Screening patients at risk for bipolar disorder will help to avoid the use of unproductive or possibly even harmful treatments. PMCID: PMC2902192 PMID: 20628502 [PubMed]

READING 5 – Early onset bipolar spectrum disorders

Danner S, Fristad MA, Arnold LE, Youngstrom EA, Birmaher B, Horwitz SM, Demeter C, Findling RL, Kowatch RA; LAMS Group. Early-onset bipolar spectrum disorders: diagnostic issues. Clin Child Fam Psychol Rev. 2009 Sep;12(3):271-93. Review. PubMed PMID: 19466543.

URL: <http://www.springerlink.com/content/p8357372h5w628x2/fulltext.pdf> (payment required)

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ABSTRACT

Since the mid 1990s, early-onset bipolar spectrum disorders (BPSDs) have received increased attention in both the popular press and scholarly press. Rates of diagnosis of BPSD in children and adolescents have increased in inpatient, outpatient, and primary care settings. BPSDs remain difficult to diagnose, particularly in youth. The current diagnostic system makes few modifications to accommodate children and adolescents. Researchers in this area have developed specific BPSD definitions that affect the generalizability of their findings to all youth with BPSD. Despite knowledge gains from the research, BPSDs are still difficult to diagnose because clinicians must: (1) consider the impact of the child's developmental level on symptom presentation (e.g., normative behavior prevalence, environmental limitations on youth behavior, pubertal status, irritability, symptom duration); (2) weigh associated impairment and course of illness (e.g., neurocognitive functioning, failing to meet full DSM criteria, future impairment); and (3) make decisions about appropriate assessment (differentiating BPSD from medical illnesses, medications, drug use, or other psychiatric diagnoses that might better account for symptoms; comorbid disorders; informant characteristics and assessment measures to use). Research findings concerning these challenges and relevant recommendations are offered. Areas for further research to guide clinicians' assessment of children with early-onset BPSD are highlighted. PMID: 19466543 [PubMed - indexed for MEDLINE]

READING 6 – Impact of educational programme on management of bipolar disorder

Rouillon F, Gasquet I, Garay RP, Lancrenon S. Impact of an educational program on the management of bipolar disorder in primary care. *Bipolar Disord.* 2011 May;13(3):318-22. doi: 10.1111/j.1399-5618.2011.00916.x. PubMed PMID: 21676135.

URL: <http://onlinelibrary.wiley.com/doi/10.1111/j.1399-5618.2011.00916.x/abstract> (payment required)

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ABSTRACT

OBJECTIVE: Government agencies and industry have recently undertaken educational programs for the management of bipolar disorder in primary care, but their medical impact is not well known. Therefore, we conducted a survey among general practitioners to evaluate the impact of the Bipolact Educational Program on the diagnosis and treatment of bipolar disorder.

METHODS: A total of 45 general practitioners attending the Bipolact Educational Program (trained group) were compared with a control group of 50 untrained general practitioners on their ability to: (i) diagnose bipolar I and II disorders and (ii) treat bipolar disorder patients appropriately.

RESULTS: Trained physicians, but not untrained physicians, showed a significant improvement ($p < 0.0001$, chi-square test) in the ability to identify patients as having bipolar I (from 10.4% to 28.8%) and bipolar II disorder (from 20.1% to 45.8%). This trend resulted in a strong decrease in nonidentified bipolar disorder patients (from 64.6% to 19.5%). Trained physicians, but not the untrained group, greatly increased the number of prescriptions for mood stabilizers for bipolar disorder patients, from 25.6% to 43.2% ($p = 0.0013$, chi-square test). Finally, trained physicians reduced the number of antidepressant prescriptions for bipolar disorder patients (the control group also reduced the number of antidepressant prescriptions, suggesting some bias in the survey).

CONCLUSION: A well-designed education package on diagnosis and management of bipolar disorder greatly increased the likelihood of physicians correctly assigning a subtype, namely bipolar I or bipolar II disorder, to patients already perceived as having some form of bipolar illness, and to prescribing mood stabilizers instead of antidepressants to these patients. PMID: 21676135 [PubMed - in process]

READING 7 – Family-focused treatment for caregivers of patients with bipolar disorder

Perlick DA, Miklowitz DJ, Lopez N, Chou J, Kalvin C, Adzhishvili V, Aronson A. Family-focused treatment for caregivers of patients with bipolar disorder. *Bipolar Disord.* 2010 Sep;12(6):627-37. doi: 10.1111/j.1399-5618.2010.00852.x. PubMed PMID: 20868461; PubMed Central PMCID: PMC2947337.

URL: <http://onlinelibrary.wiley.com/doi/10.1111/j.1399-5618.2010.00852.x/abstract> (free full text)

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ABSTRACT

OBJECTIVES: Family members of patients with bipolar disorder experience high rates of subjective and objective burden which place them at risk for adverse physical health and mental health outcomes. We present preliminary efficacy data from a novel variation of Family Focused Treatment [Miklowitz DJ. *Bipolar Disorder: A Family-Focused Treatment Approach* (2nd ed.). New York: The Guilford Press, 2008] that aimed to reduce symptoms of bipolar disorder by working with caregivers to enhance illness management skills and self-care.

METHODS: The primary family caregivers of 46 patients with bipolar I (n = 40) or II (n = 6) disorder, diagnosed by the Structured Clinical Interview for DSM-IV Axis I Disorders, were assigned randomly to receive either: (i) a 12-15-session family-focused, cognitive-behavioral intervention designed to provide the caregiver with skills for managing the relative's illness, attaining self-care goals, and reducing strain, depression, and health risk behavior [Family-Focused Treatment-Health Promoting Intervention (FFT-HPI)]; or (ii) an 8- to 12-session health education (HE) intervention delivered via videotapes. We assessed patients pre- and post-treatment on levels of depression and mania and caregivers on levels of burden, health behavior, and coping.

RESULTS: Randomization to FFT-HPI was associated with significant decreases in caregiver depressive symptoms and health risk behavior. Greater reductions in depressive symptoms among patients were also observed in the FFT-HPI group. Reduction in patients' depression was partially mediated by reductions in caregivers' depression levels. Decreases in caregivers' depression were partially mediated by reductions in caregivers' levels of avoidance coping.

CONCLUSIONS: Families coping with bipolar disorder may benefit from family interventions as a result of changes in the caregivers' ability to manage stress and regulate their moods, even when the patient is not available for treatment. PMCID: PMC2947337 PMID: 20868461 [PubMed - indexed for MEDLINE]

READING 8 – Monitoring outcomes in patients with bipolar disorder

Ketter TA. Strategies for monitoring outcomes in patients with bipolar disorder. *Prim Care Companion J Clin Psychiatry.* 2010;12(Suppl 1):10-6. PubMed PMID: 20628501; PubMed Central PMCID: PMC2902193.

URL: <http://www.ncbi.nlm.nih.gov/libproxy1/pmc/articles/PMC2902193/?tool=pubmed> (free full text)

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ABSTRACT

Practical strategies are available for primary care physicians to monitor psychiatric and medical outcomes as well as treatment adherence in patients with bipolar disorder. Current depressive symptoms can be assessed with tools like the 9-item Patient Health Questionnaire or Beck Depression Inventory. Lifetime presence or absence of manic or hypomanic symptoms can be assessed using the Mood Disorder Questionnaire (MDQ). These measures can be

completed quickly by patients prior to appointments. Sensitivity of such ratings, particularly the MDQ, can be increased by having a significant other also rate the patient. Clinicians should also screen mood disorder patients for psychiatric comorbidities that are common in this population such as anxiety and substance use disorders. While patients with bipolar disorder may commonly be nonadherent with prescribed medication regimens, strategies that can help include having frank discussions with the patient, selecting medication collaboratively, adding psychotherapy with a psychoeducation element, monitoring appointment-keeping, using patient self-reports of medication-taking, enlisting the aid of significant others, and measuring plasma drug levels. Medical monitoring is needed to assess the safety and tolerability of psychotropic medications. All of the approved medications for bipolar disorder have at least 1 boxed warning for serious side effects, but are also associated with other common management-limiting side effects such as sedation, tremor, unsteadiness, restlessness, nausea, vomiting, diarrhea, constipation, weight gain, and metabolic problems. Routine monitoring is particularly needed for obesity, metabolic syndrome, and cardiovascular disorders, which lead to high rates of medical morbidity and mortality in patients with bipolar disorder. Monitoring protocols such as the one recommended by the American Diabetes Association for patients taking second-generation antipsychotics can be used for regular assessment. PMID: 20628501 [PubMed]

READING 9 – Pharmacological treatment of bipolar disorder in primary care

Malhi GS, Adams D, Berk M. The pharmacological treatment of bipolar disorder in primary care. Med J Aust. 2010 Aug 16;193(4 Suppl):S24-30. PubMed PMID: 20712557.

URL: http://www.mja.com.au/public/issues/193_04_160810/mal10159_fm.html (free full text)

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ABSTRACT

OBJECTIVE: To provide a practical overview of the pharmacological management of adults with bipolar disorder in primary care and the role of general practitioners in the pharmacotherapy of this complex disorder.

DATA SOURCES: Published guidelines for the treatment of bipolar disorder, plus Cochrane reviews, meta-analyses, review articles and reports from randomized controlled trials that were published up to May 2009.

STUDY SELECTION: Over 500 articles on the treatment of bipolar disorder were reviewed, with an emphasis on meta-analyses and systematic reviews of randomized controlled trials. Where evidence was more limited, open trials and non-controlled data were also reviewed.

DATA EXTRACTION: Key recommendations relevant to GPs were synthesised and rated according to National Health and Medical Research Council levels of evidence.

DATA SYNTHESIS: Lithium, valproate and atypical antipsychotics are first-line treatment options for acute mania, and monotherapy is ideal if it produces an adequate response. For depressive episodes, recommendations are less definitive and the use of antidepressants is controversial. Most patients require maintenance treatment, during which pharmacotherapy should be used to prevent relapse, and psychological and social interventions should be considered.

CONCLUSIONS: Bipolar disorder is a lifelong episodic illness that affects 1%-2% of the population, many of whom are principally managed by their GPs. Pharmacological treatment with mood-stabilising agents is the primary form of management, although this is ideally provided in conjunction with psychosocial interventions. PMID: 20712557 [PubMed - indexed for MEDLINE]

READING 10 – Critical appraisal of treatments for bipolar disorder

Nierenberg AA. A critical appraisal of treatments for bipolar disorder. Prim Care Companion J Clin Psychiatry. 2010;12(Suppl 1):23-9. PubMed PMID: 20628503; PubMed Central PMCID: PMC2902191.

URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2902191/?tool=pubmed> (free full text)

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ABSTRACT

Recovery-the absence of all abnormal mood symptoms-is the goal of treatment for bipolar disorder. Unfortunately, a minority of people suffering from bipolar disorder achieve sustained recovery. Improving recovery rates for this population will require clinicians in the primary care setting to be familiar with appropriate treatments for acute bipolar mania and depression and for the maintenance phase. Efficacy and tolerability of pharmacotherapeutic and psychotherapeutic options for all phases of treatment and each type of mood episode are discussed. Primary care physicians are encouraged to avoid prescribing antidepressant monotherapy for any patient with depression and a history of mania or hypomania. PMCID: PMC2902191 PMID: 20628503 [PubMed]



O R I G I N A L P A P E R

- **Outcomes of the Early Psychosis Intervention Programme (EPIP), Singapore**

OUTCOMES OF THE EARLY PSYCHOSIS INTERVENTION PROGRAMME (EPIP), SINGAPORE

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SFP2011; 37(4): 48-51

ABSTRACT

Psychoses are serious and potentially chronic mental disorders with a profound impact, in terms of economic cost and human suffering, on patients, their families and society. Early detection and treatment, through reducing the duration of untreated psychosis, however, could lead to a better outcome. In 2001, the Early Psychosis Intervention Programme (EPIP), Singapore was started with the following key strategies: (1) early detection of psychosis through outreach to and network with the community and our partners; (2) provision of clinical treatment that is evidence-based; and (3) conducting clinically relevant research to evaluate our service to be accountable to the stake-holders and to ensure cost-effectiveness. A myriad of structure, process and outcome measures offering a multi-dimensional evaluation were chosen to make us accountable to a broad range of stakeholders, from our funders, other service providers, to our patients and their families. EPIP has shown good outcomes in terms of number of patients accepted into the programme, as well as our clinical service provision. Such outcomes are achieved with our community partners playing an important role. General Practitioners, in particular, are vital not only in the detection, management of such individuals, but also in the re-integration of our patients back to community.

Keywords:

First episode psychosis; Singapore; Outcomes; Clinical response; Remission; Functioning; General practitioners; Stakeholders

INTRODUCTION

What is psychosis?

Psychosis is a condition that causes disturbances in the brain and people suffering from psychosis lose touch with reality. It affects their way of thinking, perceiving and/or behaving. The

symptoms are broadly categorised into hallucinations, delusions and disorganised thinking and behaviour.

Hallucinations are sensory experiences (whether through sound, touch, sight, taste or smell) in the absence of the external stimuli. Delusions are beliefs that are firmly held and unshakeable, such as thinking that someone has hatched a plot to harm the individual. Disorganised thinking could take the form of circumstantiality or tangentiality. Age of onset is typically in the late adolescence and early adulthood and affects both males and females equally.

Burden of psychosis

Worldwide, psychosis is ranked third amongst the most disabling condition, following quadriplegia and dementia and ranking higher than blindness and paraplegia (NHS Executive, 1996). The illness generates an enormous burden in both economic cost and human suffering. The British National Health System (NHS) conducted a study on the financial impact of chronic diseases¹ and found that psychosis was the most costly illness to treat.

In Singapore, our Ministry of Health conducted a study in 2004 to find out the leading causes of disability: schizophrenia, a form of psychosis, was ranked top three in the leading causes of disability-adjusted life year (DALY) for Singaporeans aged between 15-44 years old². According to the World Health Organisation (WHO), DALYs is defined as the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

Early intervention of psychosis

In view of the high costs to treat psychosis, as well as the extensive disability associated with it, a movement for early intervention of psychosis started in the late 1980s with the Early Psychosis Prevention and Intervention Centre (EPPIC) from Melbourne, Australia led by Prof Patrick McGorry. The premise behind the provision of such a clinical service is to reduce the duration of untreated psychosis (DUP). DUP is defined as the time between the onset of the first psychotic symptoms and the first adequate treatment. A recent meta-analysis³ showed that a shorter DUP is related to a greater response to treatment and functional outcomes.

The concept of early intervention for psychosis garnered much support from the international community as provision of such a service could improve the outcomes for someone who suffers from psychosis. Buoyed by the potential to intervene early for better outcomes in psychosis as well as findings from the research studies, the notion of early intervention for psychosis

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quickly gained momentum. Many early intervention sites began to develop worldwide: in the UK [Lambeth Early Onset (LEO) Service, London; REDIRECT, Birmingham], Norway (TIPS), Canada [The Prevention and Early Intervention Program for Psychoses (PEPP), Ontario; Early Psychosis Program, Calgary], Hong Kong (Early Assessment Service for Young People with Early Psychosis Programme) and Japan (Early Intervention Centre Tokyo Youth Club).

Early Psychosis Intervention Programme (EPIP), Singapore

In 2001, the Early Psychosis Intervention Programme (EPIP) was started as a Health Service Development Programme (HSDP) under the auspices of the Ministry of Health (MOH), Singapore. Based in the Institute of Mental Health, EPIP is a comprehensive, integrated, and patient centred programme led by a multidisciplinary team of psychiatrists, psychologists, case managers, social workers, nurses and occupational therapists. It is one of the first few programmes in Asia to introduce an early intervention service, and a pioneer in the use of case management in a psychiatric setting. Details of our service provision have been described elsewhere⁴.

EPIP's aims are to:

- raise awareness of and reduce stigma associated with psychosis;
- establish links with primary health care providers and collaborate in the detection, referral, and management of those with psychosis; and
- improve the outcome of our patients and reduce the burden of care for their families.

In order to improve the outcomes of individuals with psychosis, it is important to focus not only on the timing of intervention but also its quality. Our key strategies are to:

- outreach to and network with the community and our partners, thus focusing on early detection of psychosis;
- provide clinical treatment that is evidence-based; and
- conduct clinically relevant research as well as evaluate our service to be accountable to the stake-holders and to ensure cost-effectiveness.

In April 2007, EPIP came under the National Mental Health Blueprint. Drawn by MOH together with stakeholders, the Blueprint aims to promote mental health and where possible, prevent the development of mental health disorders as well as reduce the impact of mental disorders. The Blueprint has four main thrusts: mental health promotion, integrated mental health care, developing manpower and, research and evaluation. All programmes under the Blueprint are evaluated regularly on performance indicators established a priori so as to be accountable to our stakeholders, as well as for the monitoring and evaluation of these initiatives. These indicators

are mutually set by the individual programme directors and MOH and incorporated a myriad of structure, process and outcome measures to offer a multi-dimensional evaluation of the programmes.

METHOD

Patients accepted to EPIP since April 2007 were included in this analysis. EPIP's inclusion criteria are: age between 16 and 40 years, first episode psychotic disorder, and psychosis was not secondary to substance abuse or medical problems. Patients accepted into EPIP are followed up for a period of two years before being discharged to downstream services.

EPIP has built in an evaluation component to our clinical programme by administering clinical assessments at regular intervals as well as generating operational statistics from our hospital's data systems. In our discussions with MOH, the following a priori indicators were agreed upon and the targets were set based on the experience of first five years of our service, as well as the outcomes recommended within the international consensus statement on early psychosis⁵:

Outreach and network

- Number of patients screened and accepted into EPIP.

Clinical treatment

- Average Length of stay in the hospital.
- Proportion of patients with an improvement in their symptomatology at the end of 2 years.
- Proportion of patients with an improvement in their level of functioning at the end of 2 years.
- Levels of satisfaction with the EPIP service by patients.
- Proportion of patients who remained engaged with EPIP and did not default.
- Suicide rate within first 2 years of diagnosis.

Data such as the number of patients screened and accepted, and length of stay in the hospital was obtained by the hospital's data systems. The other clinical data was obtained through the systematic assessments by the EPIP team (psychiatrists and case managers): on first presentation (baseline), 3 months, 6 months, 1 year and 2 years later. Severity of psychopathology was assessed by Positive and Negative Scale for Schizophrenia (PANSS) 6; a higher score indicates more severe symptoms. Clinical response was defined as at least 20% reduction in their PANSS total score from baseline to 1 year and at the end of 2 years 7. The Global Assessment of Functioning (GAF) was used to assess level of functioning⁸; a higher score indicates higher level of functioning. Recovery was defined as a score of 60 or more on the GAF Disability subscale, which indicates some difficulty in social, occupation or school functioning but generally functioning well, with some meaningful interpersonal relationships. The case managers also used a semi-structured socio-demographic questionnaire to assess if our patients were

employed or engaged in age-appropriate roles (for example, student or homemaker).

Patients rated their satisfaction with the service provided by EPIP on the Client Satisfaction Questionnaire 8 (CSQ-8) (9). Engagement with EPIP was rated by the case managers using a semi-structured scale (1 = not a defaulter, 2 = telephone contact with patient + / - family, 3 = telephone contact with family only, 4 = no contact). Engagement was defined as face-to-face or phone contact with the patients, or phone contact with their families. Suicide rate was established when the team was notified of patients' suicides through their caregivers or through police investigations.

Proportions of patients who achieved clinical response, recovery and remained engaged with EPIP's services were calculated as total number of patients meeting the criteria over total number of available data sets.

RESULTS

Between April 2007 to March 2011, EPIP has screened 1293 individuals and accepted 815 into our programme. Data was available for 803 patients for our current analysis; as 12 (1.5%) of them had missing data. The sample comprised of 388 females (48.7%) and 408 males (50.8%) with a mean age of 27 years (± 6.5 years) and ranged between 15 to 41 years. The socio-demographic data for this sample is presented in Table 1.

Table 1: Socio-demographic characteristics of sample (n = 803)

Variable		N (%)
Gender	Male	411 (51.2)
	Female	392 (48.8)
Race	Chinese	592 (75.1)
	Malay	109 (13.8)
	Indian	62 (7.9)
	Others	25 (3.2)
Highest educational level	No education	9 (1.2)
	Primary	87 (11.2)
	Secondary and Pre-University	316 (40.6)
	Vocational	99 (12.7)
	Tertiary	262 (33.6)
	Others	6 (0.8)
Referral source	Relatives, Friends or Self	369 (47.3)
	Hospital	110 (14.1)
	General Practice or Polyclinic	103 (13.2)
	Police or Court	98 (12.6)
	Counsellor from welfare organisation or school	28 (3.6)
	Private Psychiatrist	8 (1.0)
	Others (MINDEF, MCYS, school staff, religious organisations)	64 (8.2)
First presentation status	Inpatient	448 (55.8)
	Outpatient	355 (44.2)

Mean length of stay per admission in the hospital, calculated as number of days of hospitalisations divided by number of admissions, was 16.6 days (2693/378). 86.1% (198/230) had at least 20% reduction in their PANSS total score from

baseline to 2 years. At the end of 2 years, 84.2% (197/234) of our patients scored 60 or more on the GAF Disability. 76.4% (230/301) of them have returned to performing age appropriate roles (back to school or gainfully employed). The baseline and 2 year symptomatology and functional data is shown in Table 2.

Table 2: Clinical characteristics of sample (n = 803)

Variable	Baseline	2 years
	Mean (SD)	Mean (SD)
PANSS Total	66.7	39.0
	N (%)	N (%)
GAF Disability score ≥ 60	75 (9.5)	197 (84.2)
In age-appropriate roles	193 (54.4)	230 (76.4)

At the end of 2 years, 94.9% (187/197) of our patients who completed the CSQ-8 rated our service as "good" or better. 93.4% (281/301) remained engaged with EPIP services (outpatient attendances and/or maintaining phone contact). To our knowledge, we had 8 patients who committed suicide within 2 years of diagnosis – giving the suicide rate of 0.89% (8/898).

DISCUSSION

Through our active outreach and networking, there was a steady increase of the number of patients seen by our service. We have also provided quality clinical service as shown by our clinical outcomes in terms of response and recovery, as well as the high level of service satisfaction, and high proportion of patients who did not default. We have kept the length of stay per admission in the hospital at 16.6 days and none of the patients to date has subsequently been transferred to the chronic wards of Woodbridge Hospital. The suicide rate is also lower than the 1% target contained in the international consensus statement on early psychosis⁵.

A limitation of this analysis is the missing data from patients who have completely defaulted their contact with EPIP or have chosen not to fill up some of the self-rated questionnaires. Also, we did not have adequate data to conduct a cost effectiveness analysis.

Importance of role of General Practitioners

Before the start of EPIP, around two-thirds of patients with first episode psychosis had sought the help in the primary health care sector¹⁰. As shown in Table 2, 13.2% of our patients continued to be referred from general practice and polyclinics even after the establishment of EPIP, thus reinforcing primary care as an important source of referrals to our service. One of EPIP's foci is to equip primary healthcare providers with the knowledge to detect psychosis, to inform of EPIP as a specialised resource and to provide assistance in the referral process.

To make the treatment continuous and seamless, it is vital for GPs to be engaged not just in detecting unwell individuals early, but also to collaborate in the management of these patients. EPIP's recognition for the need to move towards community management of psychosis is in line with the MOH's recent initiative to manage more chronic illnesses using community primary health services. In recent years, the IMH-GP Partnership Programme (which was first initiated as part of the EPIP) has been implemented to involve GPs in the care and management of stable individuals and right-site the care within the community. A select group of GPs have already been trained by us. This is an ongoing collaboration with the specialists in the hospital and the GPs in the community.

Thus, in addition to being an important source of referral, general practitioners also play an important role in the re-integration of our EPIP patients back to society. Such collaboration allows our patients to resume their previous social roles and still access the appropriate medical care they require.

New services

Having established EPIP as a leader in the detection and treatment of early psychosis in Singapore and Asia, we have pushed the envelope further with an initiative for indicated prevention by focusing on individuals with at-risk mental state (ARMS), that is, where there are some features present which place this person at high risk for the development of psychosis or other mental disorders. By providing treatment to such individuals, we can minimise the disability of a possible mental illness, prevent or delay the onset of mental illness, and rapid detection and timely commencement of treatment if needed. This service which is the Support of Wellness Achievement Programme (SWAP) was launched in March 2008 to focus on individuals between the ages of 16 to 30.

CONCLUSION

EPIP has articulated a range of process and outcome indicators which evaluate the various aspects of our service such as service delivery and patient and caregiver outcomes. This makes the service accountable to stakeholders which include not only our funders, other service providers but also our patients and their families.

REFERENCES

1. Burdens of disease: a discussion document. NHS Executive, Department of Health (United Kingdom); 1996.
2. Burden of Disease Study. Ministry of Health, Singapore; 2004.
3. Perkins DO, Gu H, Boteva K, et al. Relationship between duration of untreated psychosis and outcome in first-episode schizophrenia: a critical review and meta-analysis. *Am J Psychiatry*, 2005;162:1785-804.
4. Chong SA, Lee C, Bird L, et al. A risk reduction approach for schizophrenia: the early psychosis intervention programme. *Ann Acad Med Singapore*, 2004;33:630-5.
5. Bertolote J, McGorry P. Early intervention and recovery for young people with early psychosis: consensus statement. *Br J Psychiatry*, 2005;187(suppl 48):s116-s119.
6. Kay SR, Fiszbein A, Opler LA. The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophr Bull*, 1987;13:261-276.
7. Andreason NC, Carpenter WT Jr, Kane JM, et al. Remission in schizophrenia: proposed criteria and rationale for consensus. *Am J Psychiatry*, 2005;162:441-9.
8. Piersma H, Boes J. The GAF and psychiatric outcome: a descriptive report. *Community Ment Health J*, 1997;33:35-41.
9. Attkisson CC, Zwick R. The client satisfaction questionnaire: Psychometric properties and correlations with service utilisation and psychotherapy outcome. *Eval Program Plann*, 1982;5:233-7.
10. Chong SA, S Mythily, Verma S. Reducing the duration of untreated psychosis and changing help-seeking behaviour in Singapore. *Soc Psychiatry Psychiatr Epidemiol*, 2005;40(8):619-21.

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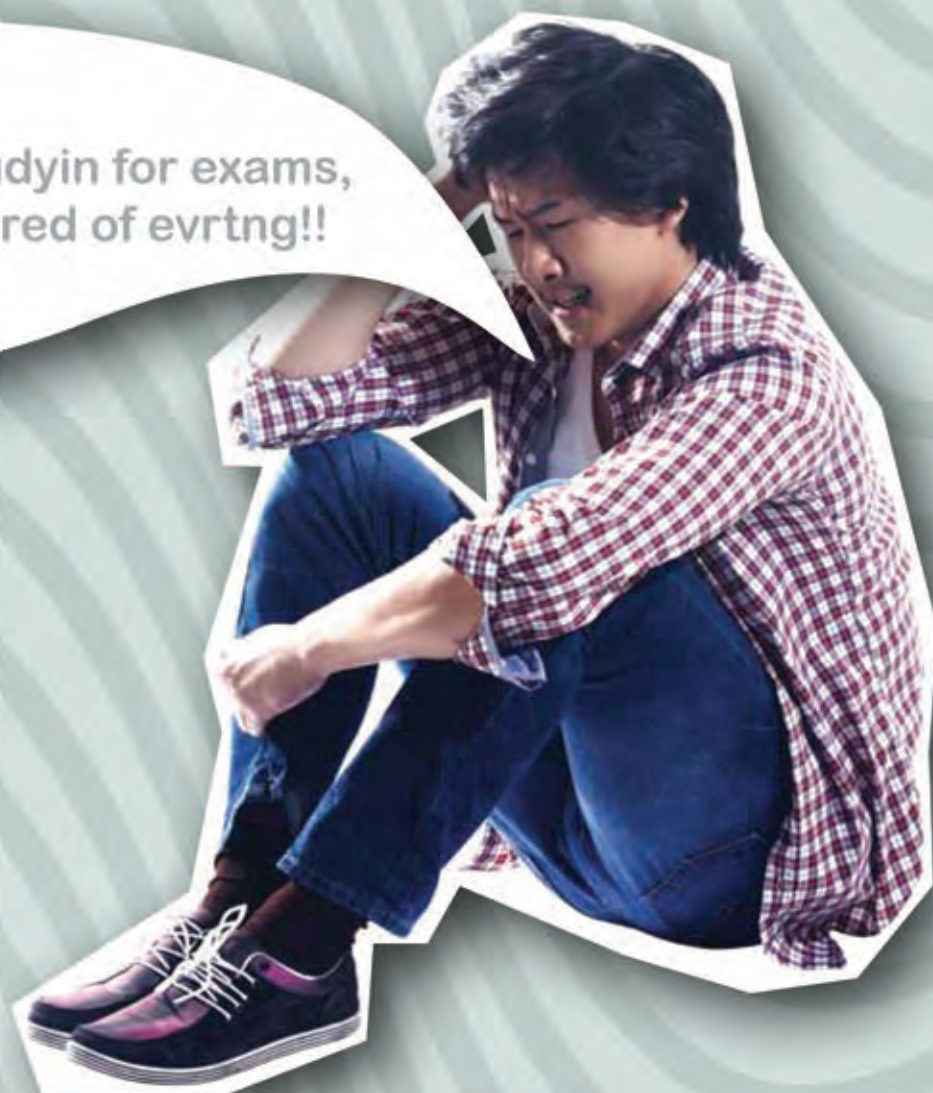
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