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 empathic 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

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 population. 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 disease. 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 depression. 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 consultations. Depression is often missed as patients tend to present primarily with somatic symptoms or depressive symptoms related to physical ailments. Recognition is hampered when depressed patients present with only non-specific physical complaints and do not spontaneously reveal the psychological aspects of their problems. Overt depressed mood is also less common in people with chronic illness and in teens and the elderly.

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 empathic, 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 symptoms. 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 medication. 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* |
|---------------------------------|---------------------------------|
| 1. Depressed mood most of the day. | 9. Recurrent thoughts of death |
| 2. Diminished interest or pleasure in all or most activities. | |
| 3. Significant unintentional weight loss or gain. | 10. Diminished ability to think or concentrate, or indecisiveness. |
| 4. Insomnia or sleeping too much. | 11. Fatigue or loss of energy. |
| 5. Agitation or psychomotor retardation noticed by others. | 12. Feelings of worthlessness or excessive guilt. |
| 6. 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. |

* Major Depressive Disorder requires two or more major depressive episodes.
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 complaints\textsuperscript{10}. 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)\textsuperscript{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 attempts\textsuperscript{12}.

**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)\textsuperscript{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.

**Mnemonic “IN SAD CAGES”**

| IN | Interests (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 |

**Table 2: Mnemonic “IN SAD CAGES”**

**Mnemonic “SAD PERSONS”**

| S   | Sex (male) |
| A   | Age (elderly or adolescent) |
| D   | Depression |
| P   | Previous suicide attempts |
| E   | Alcohol 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) |

**Table 3: Mnemonic “SAD PERSONS”**

**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\textsuperscript{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 events\textsuperscript{16}. Certain personality traits may also increase vulnerability, in particular amongst those individuals who have decreased emotional strength and increased interpersonal dependency\textsuperscript{17}. Early childhood traumas such as neglect, physical and sexual abuse were predictive of adult onset depression\textsuperscript{18}.
OVERVIEW OF MAJOR DEPRESSIVE DISORDER

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 depression19,20. 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


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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.