Clinical Practice Guidelines for Management of Depression in Elderly

استاد راهنمای محترم :
دکترفاطمه سادات میرزاده
عضو هیات علمی گروه اموزشی طب سالمندی
ارایه دهنده:
مریم امینی منش
دستیار پزشکی اجتماعی

MOOD :

- Mood is a pervasive and sustained feeling tone that is experienced internally and that influences a person's behavior and perception of the world.
- Affect is the external expression of mood. Mood can be normal, elevated, or depressed.
- Depression is a serious mood disorder. It can affect the way you feel, act, and think. Depression is a common problem among older adults, but clinical depression is not a normal part of aging. Ageism may influence and cause clinicians to accept depressive symptoms as normal in older patients

Most common mental disorders of old age :

- Depressive disorders, cognitive disorders, anxiety disorders and alcohol use disorders.
- Anxiety disorders were the most prevalent disorders among those 65 years and older.
- Depressive disorders are one of the common psychiatric ailments seen in elderly population.
- (WHO): prevalence of depressive disorders among elderly is 10 to 20% .
- Prevalence in community-based studies have varied from 8.9% to 62.16% and clinic based studies have estimated the prevalence of depression to range from 42.4 to 72%.

INTRODUCTION:

- Depression in elderly has been shown to be associated with significant negative consequences ranging from poor quality of life, difficulties with activities of daily living, physical comorbidities, premature mortality and cognitive impairments.
- depression in elderly is associated with higher risk of suicide, more frequent hospitalization, higher number of consultations with the treatment agencies and family burden , than adult population.
- The underrecognition of depression in older persons may occur because the disorder appears more often with somatic complaints in older.
- Hence, it is very important to recognise depression among elderly and manage the same.

Epidemiology:

- **Sex** :is the twofold greater prevalence of major depressive disorder in women than in men.
- **Marital Status** :Major depressive disorder occurs most often in persons without close interpersonal relationships or in those who are divorced or separated .
- **Socioeconomic** and **Cultural Factors** :

No correlation has been found between socioeconomic status and major depressive disorder.

- Depression is more common in rural areas than in urban areas.
- The prevalence of mood disorder does not differ among races.

Late Life Stressors that place older adults at risk of mental health disorders:

- Old age – even though older adults are more likely to experience life stressors – old age is NOT a risk factor for an increasing risk for a mental health disorder; in fact, 'most' older adults are able to cope with late life stressors without developing significant mental health disorders.

- Chronic physical health condition(s) such as stroke or cancer
- Death of a loved one
- caregiver stress
- Social isolation/lack or loss of social roles or support
- History of mental health problems
- Decreased cognitive functioning
- Financial constraints
- Vitamin D deficiency

- Genes – people who have a family history of depression may be at higher risk
- Sleep problems
- Lack of exercise or physical activity
- Addiction and/or alcoholism —included in Substance-Induced Depressive Disorder

Etiology :

- ***Psychosocial Factors*** (Life Events and Environmental Stress):

  loss of a spouse, unemployment (three times more), Recent stressful events are the most powerful predictors of the onset of a depressive episode.

- ***Personality Factors***: Persons with certain personality disorders OCPD, histrionic, and borderline may be at greater risk for depression than persons with antisocial or paranoid personality disorder.

Signs and Symptoms:

- Persistent sad, anxious, or "empty" mood
- Feelings of hopelessness, guilt, worthlessness, or helplessness
- Irritability, restlessness, or having trouble sitting still
- Loss of interest in once pleasurable activities, including sex
- Decreased energy or fatigue
- Moving or talking more slowly
- Difficulty concentrating, remembering, or making decisions
- Difficulty sleeping, waking up too early in the morning, or oversleeping
- Eating more or less than usual, usually with unplanned weight gain or loss
- Thoughts of death or suicide, or suicide attempts
- Pseudodementia
- If you have several of these signs and symptoms and they last for more than two weeks

Diagnostic Challenge :

- Symptoms of depressive and physical disorders often overlap, e.g.,
  - Fatigue
  - Disturbed sleep
  - Diminished appetite
- Seriously ill or disabled persons may focus on thoughts of death or worthlessness, but not suicide
- Side effects of drugs for other illnesses may be confused with depressive symptoms

- Accordingly, any elderly individual presenting with first episode depression in the late age must be properly evaluated for underlying physical illnesses. There is significant overlap of symptoms of depression and various medical illnesses and it is often difficult to segregate the attribution of symptoms. Symptoms such as weight loss, fatigue and insomnia may overlap with patients suffering from various physical illnesses.

Many physical illnesses have been shown to have high prevalence of depression:

Some of the physical illnesses commonly associated with depression

1. Acquired immunodeficiency syndrome (AIDS)
2. Addison's disease
3. Alzheimer's Disease
4. Cancers: pancreas, lungs, oral cavity
5. Cerebral atherosclerosis, infarction
6. Coronary Artery Disease
7. Cushing's Syndrome
8. Degenerative Brain Disease
9. Diabetes mellitus
10. Electrolyte imbalance (e.g., hypernatremia, hypercalcemia, hypokalemia, hyperkalemia)
11. Epilepsy (temporal lobe epilepsy)
12. Hyperparathyroidism
13. Hyperthyroidism
14. Hypothyroidism
15. Intracranial tumors
16. Multiple Sclerosis
17. Myocardial infarction
18. Nutritional deficiencies: B12, folic acid, thiamine
19. Parkinson's Disease
20. Porphyria
21. Post stroke
22. Renal Disease: Chronic kidney disease (CKD), patients undergoing dialysis
23. Rheumatoid arthritis

DIAGNOSTIC COMPLEXITIES OF DIAGNOSING DEPRESSIVE DISORDERS IN ELDERLY:

- Depressive disorders in elderly can include a spectrum of disorders
- There is lack of consensus on the age cut-off used to define late onset depression, with some of the authors considering the age cut-off of 60 years, whereas others define it as experiencing first episode of depression ≥ 65 years of age
- Hence it is postulated that although the presence of standard diagnostic criteria is a necessary for of depression in elderly, this is not sufficient condition for diagnosis of depression in elderly.

Spectrum of Depressive Disorders in Elderly

Classification of Geriatric depressive disorders

According to Symptomatology

- Major Depressive Disorder
- Minor depressive disorder (*Other specified depressive disorder, depressive episode with insufficient symptoms in DSM-5*)/ Subsyndromal or subthreshold depression/ Depression without sadness
- Mixed anxiety-depressive disorder
- Dysthymic disorder
- Bereavement
- Adjustment disorder with depressed mood

According to Associated Etiology

- Mood disorder caused by a general medical Condition (Depressive disorder due to another medical condition)
- Vascular depression/Depression–executive dysfunction syndrome
- Substance- or medication-induced Depression

Major Depressive Episode:

- **Depressed mood**
- **Anhedonia**
- Decrease or increase in appetite OR significant weight loss or gain
- Persistently increased or decreased sleep
- Psychomotor agitation or retardation

- Fatigue or low energy
- Feelings of worthlessness or inappropriate guilt
- Decreased concentration or indecisiveness
- Recurrent thoughts of death, suicidal ideation, or suicide attempt

- **Five or more symptoms present for ≥ 2 weeks**

Minor :

- Some of the studies suggest that with increasing age prevalence of major depression decreases and that of minor or sub-threshold depression increases.
- In DSM-5, minor depression can be subsumed under the category of *"Other specified depressive disorder, depressive episode with insufficient symptoms"*, which is characterised by presence of depressed affect and at least one of the other eight symptoms of MDD, which is associated with clinically significant distress or impairment that persists for a duration of at least 2 weeks.

vascular depression:

- and newer studies based on magnetic resonance imaging (MRI) suggest that vascular depression accounts for upto 50% of depression in elderly.

Features of Vascular Depression in Elderly

- First episode of depression after the age of 65 years
- Symptomatology: subjective feeling of sadness, loss of energy, anhedonia, psychomotor retardation, cognitive symptoms (executive dysfunctions, reduced processing speed and visuospatial skills), problems with level of motivation, poor self-initiative, lack of insight
- Depressive symptoms may not meet criteria for any mood disorder as per DSM-5
- Lack of family history of depression
- Presence of cardiac morbidity, hypertension, and other vascular risk factors
- Higher risk for cognitive decline and progression to dementia
- Fluctuations in the cognitive functions which may be related to white matter hyperintensities
- Poor response to treatment and higher mortality

Depression is elderly is also often associated with use of certain medications:

- It is important to evaluate the temporal correlation of use of medications (starting of medications, escalation of dose of medication) and emergence of depressive symptoms to make any conclusion about the association.

Medications known to cause depression

Cardiovascular drugs
- ACE inhibitors
- Calcium channel blockers
- Clonidine
- Digitalis
- Guanethidine
- Hydralazine
- Methyldopa
- Procainamide
- Propranolol
- Reserpine
- Thiazide diuretics
- Guanabenz
- Zolamide diuretics

Chemotherapeutics
- 6-Azauridine
- Asparaginase
- Azathioprine
- Bleomycin
- Cisplatin
- Cyclophosphamide
- Doxorubicin
- Vinblastine
- Vincristine

Anti-infective agents
- Ampicillin
- Chloramphenicol
- Chloroquine
- Clofazimine
- Cycloserine
- Cyclosporine
- Dapsone
- Ethambutol
- Ethionamide
- Foscarnet
- Ganciclovir
- Griseofulvin
- Isoniazid
- Interferon
- Metoclopramide
- Metronidazole
- Nalidixic acid
- Nitrofurantoin
- Penicillin G procaine
- Streptomycin
- Sulfonamides
- Tetracycline
- Trimethoprim

Sedatives and antianxiety drugs
- Barbiturates
- Benzodiazepines
- Chloral hydrate
- Ethanol

Other drugs
- Choline
- Cimetidine
- Disulfiram
- Lecithin
- Methysergide
- Phenylephrine
- Physostigmine
- Ranitidine
- Statins
- Tamoxifen

Antiretroviral drugs
- Atazanavir
- Efavirenz
- Enfuvirtide
- Saquinavir
- Zidovudine

Antiparkinsonian drugs

- Amantadine
- Bromocriptine
- Levodopa

Stimulants

- Amphetamines withdrawal)
- Caffeine
- Cocaine (withdrawal)
- Methylphenidate (Ritalin)

Hormones

- Adrenocorticotropin
- Anabolic steroids
- Glucocorticoids
- Oral contraceptives

Antipsychotic drugs

- Fluphenazine
- Haloperidol

Anticonvulsants

- Ethosuximide
- Phenobarbital
- Phenytoin
- Primidone
- Tiagabine
- Vigabatrin

Anti-inflammatory agents

- NSAIDS

Atypical Presentation of Depression in Older Adults:

- More often report somatic symptoms
- Less often report depressed mood
- May present with "masked" depression cloaked in preoccupation with physical concerns and complicated by overlap of physical and emotional symptoms
- For those with a medical condition, depressive symptoms significantly reduce survival.

atypical presentation of depression:

- While assessing depression among elderly it is important to remember that many elderly have atypical presentation of their depression. They may present with chronic unexplained physical symptoms, cognitive symptoms, change in behaviour, anxiety and worries, irritability and dysphoria.
- While evaluating elderly patients, it must be remembered that when neurotic symptoms like hypochondriasis, obsessive compulsive features emerge for the first time in life in old age, than more often than not, these are associated with depression.

substance use disorders:

- Elderly patients presenting with depression should also be properly evaluated for substance use disorders. At times, elderly patients with depression may present with alcohol dependence arising for the first time in the later life. A thorough history from the patient and an informant often provides clarity. Whenever required, appropriate tests like, urine or blood screens (with prior consent) may be used to confirm the existence of comorbid substance abuse/dependence.

Suicide:

- Elderly patients with depression are at higher risk for self-harm and completed suicide when compared to young adults. Depression is the most common risk factor for suicide in elderly. Hence, every patient must be properly evaluated for suicidal behaviours.
- The risk factor for suicide among elderly and those with depression include older age, male gender, severe anxiety, panic attacks, living alone, severe depression, bereavement (especially in men) and presence of comorbid alcohol misuse, physical pain and history of suicide attempts in the past.

Dementia:

- At times depression among elderly is often confused with dementia. Symptoms like apathy, loss of initiative, social withdrawal and cognitive dysfunction (poor attention and concentration) are present in both the disorders.
- Compared to dementia, depression often have more rapid onset, have evidence of mood change, diurnal variation with morning worsening of symptoms, intact orientation, fluctuating and inconsistent cognitive deficits, may give more 'don't know' answers, significant personal distress, disturbed sleep and appetite and suicidal ideations.

NIMH Provisional Diagnostic Criteria for Depression in Alzheimer Disease

A. Three (or more) of the following symptoms must be present during the same 2-week period and represent a change from previous functioning. At least one of the symptoms must either be 1) depressed mood or 2) decreased positive affect or pleasure

1. Clinically significant depressed mood
2. Decreased positive affect or pleasure in response to social contacts and usual activities
3. Social isolation or withdrawal
4. Disruption in appetite
5. Disruption in sleep
6. Psychomotor changes
7. Irritability
8. Fatigue or loss of energy
9. Feelings of worthlessness, hopelessness, or excessive or inappropriate guilt
10. Recurrent thoughts of death, suicidal ideation, plan or attempt

B. All criteria are met for Dementia of the Alzheimer Type (DSM-IV)

C. The symptoms cause clinically significant distress or disruption in functioning

D. The symptoms do not occur exclusively in the course of delirium

E. The symptoms are not due to the direct physiological effects of a substance

F. The symptoms are not better accounted for by other conditions such as major depressive disorder, bipolar disorder, bereavement, schizophrenia, schizoaffective disorder, psychosis of Alzheimer disease, anxiety disorders, or substance-related disorders

nutritional deficiencies:

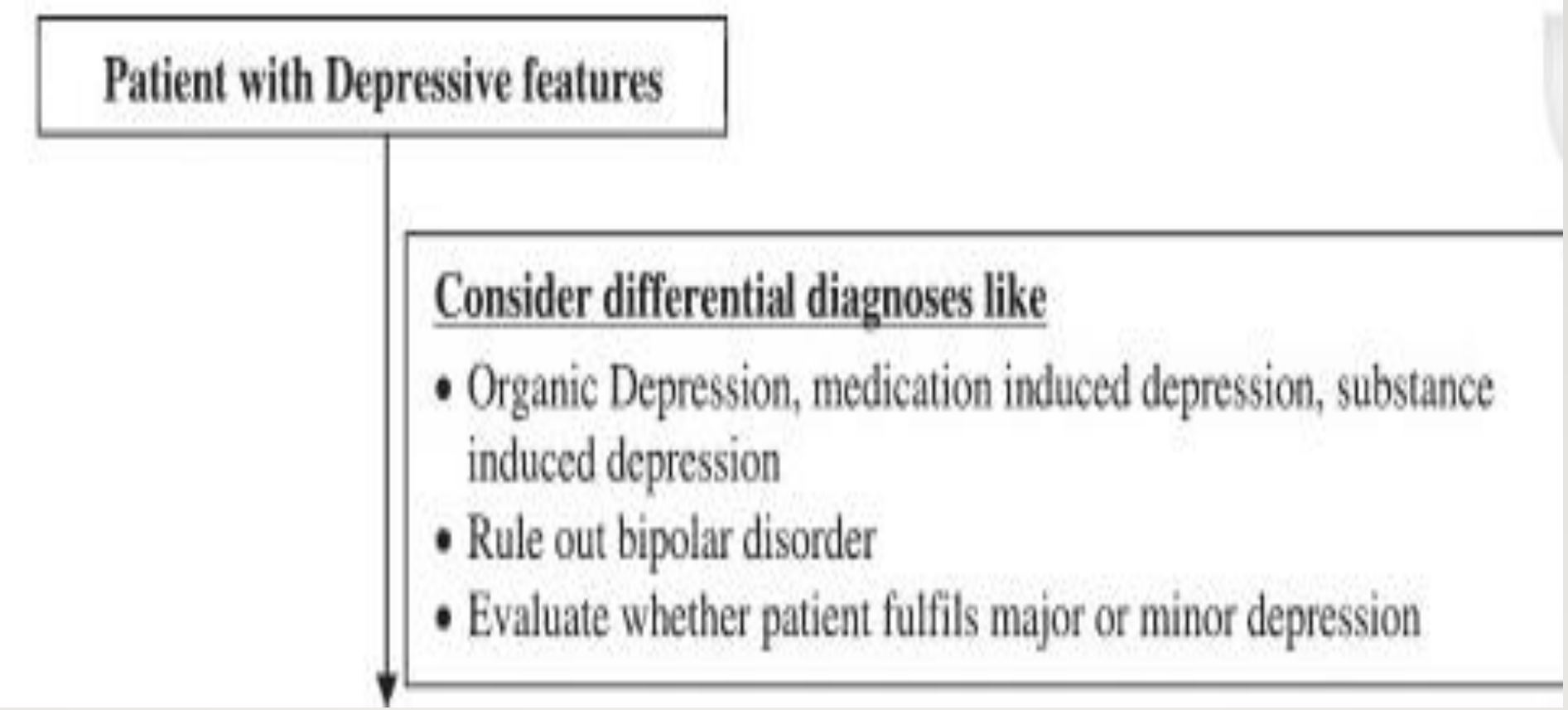
- An important aspect for evaluation of depression in elderly also involves evaluation for nutritional deficiencies which may be responsible for the depressive symptoms and correction of these may be sufficient to manage depressive symptoms.

does not have bipolar disorder:

- Before considering the diagnosis of unipolar depressive disorders, it is important to ascertain that patient does not have bipolar disorder as use of antidepressants in patients with bipolar disorder can lead to antidepressant induced switch. Elderly patients presenting with depressive disorders often do not come up with history of previous hypomanic or manic episodes. Meticulous history from the patient, family members, review of treatment records often provide important clues and aid in confirming the diagnosis of bipolar disorder.

- Depression is a truly multifactorial disorder. Given the importance of genetic and environmental risk factors, aging processes, neurodegenerative and cerebrovascular disease processes, and medical comorbidity.

Formulating a treatment plan:


Patient with Depressive features
Consider differential diagnoses like
• Organic Depression, medication induced depression, substance induced depression
• Rule out bipolar disorder
• Evaluate whether patient fulfils major or minor depression

Establish the diagnosis of Depression

↓

Assessment

- Severity of illness: GDS, HAM-D, BDI, PHQ-9
- Risk of harm to self and others- current suicidal ideations, suicidal attempts; past history of non-suicidal self-harm behaviour, past history of suicidal attempts, severity of attempt
- Comorbid Physical illnesses: relationship with onset of depressive symptoms, symptom overlap
- Comorbid substance use/dependence
- Comorbid Psychiatric disorders
- Level of functioning: interpersonal relationships, work, living conditions, activities of daily living, instrumental activities of daily living, and other medical or health-related needs
- Detailed Physical examination- thyroid swelling, evidence for nutritional deficiency, and physical illness which could contribute to depression
- Record- blood pressure, pulse, weight and wherever indicated body mass index and waist circumference
- Mental Status Examination
- Structured assessment for cognitive functions: MMSE/HMSE, MoCA, Mini-Cog
- Investigations- haemogram, blood glucose levels, lipid profile, liver function tests, renal function test, thyroid function test, electrocardiogram (ECG), serum electrolytes, especially serum sodium levels, Serum B12 and folic acid levels
- Neuroimaging : first-episode of depression seen in late or very late age; those have neurological signs, those having treatment resistant depression
- Treatment history- response to previous medication trials, compliance, side effects, etc.
- Patient's and caregivers beliefs about the cause of illness and beliefs about the treatment
- Assessment for social support, stigma, coping
- Assessment of caregiver knowledge and attitude, caregiver burden, coping and distress

- **Decide about treatment setting-** Consider inpatient care in case of suicidality, malnutrition, catatonia, comorbid general medical conditions making management difficult at the outpatient setting
- Liaison with other specialists depending on the need of the patient

Pharmacological Management

- Choose an antidepressant based on past treatment response, past history of side effects, cost, comorbidity, patient/family preference, availability

Electroconvulsive therapy

- Catatonia, suicidality, severe depression, past response to ECT, augmentation etc.

Non-Pharmacological Management

- Psychoeducation
- Psychotherapeutic intervention

- While assessing elderly for depression, it is important to remember that elderly patients often under-report their depressive symptoms and they may not acknowledge being sad, down or depressed. Common depressive symptoms (such as lack of enjoyment in normal activities, loss of interest in life, apprehension about future, poor sleep, recurrent thoughts of death, persistent unexplained pain, poor concentration or impaired memory) are often misattributed to old age, dementia or poor health. Due to this depression among elderly is often under-detected and untreated for a long time. Many elderly patients with depression often tend to report more somatic and cognitive symptoms than affective symptoms.

Indications for admission in elderly patients with depression:

1. Patients expressing suicidal ideas of a definite sort, or who have made a suicide attempt
2. Patients threatening to harm themselves for the first time (especially men)
3. Patients with problems with treatment compliance or delivery, leading to unduly protracted treatment
4. Patients requiring electroconvulsive therapy (Catatonia)
5. Patients who neglect themselves substantially, particularly their fluid intake
6. Patients with severe malnutrition, patients refusing to eat which puts the life of patient at risk
7. Patients requiring removal from a hostile social environment
8. Patients who are in severe distress to the extent that they need tranquillisation or skilled nursing care
9. Patients with comorbid physical illness(es) that is complicating treatment and make outpatient treatment unsafe or ineffective
10. Patients who have not responded adequately to outpatient treatment
11. Frail elderly
12. Lack of adequate social support

TREATMENT OPTIONS FOR MANAGEMENT FOR DEPRESSION:

- The available treatment options for management of depression can be broadly categorised into antidepressants, somatic treatments and psychosocial interventions.

Antidepressant :

- Antidepressants are the usually preferred modality of treatment for mild, moderate, or severe depressive episode.

Antidepressant	Usual Starting dose in mg/day	Average dose in mg/day	Maximum recommended dose (mg/day)	Side effects
Selective serotonin reuptake inhibitors (SSRI)				
Fluoxetine	10	20	20	GI distress, weight loss/gain, anxiety, insomnia, hyponatremia, Sexual dysfunction,
Paroxetine	10-20	20-30	30-40	
Fluvoxamine	50	50-200	200	
Sertraline	25	50-150	200	
Citalopram	10	20-40	20 if (age>65); 40 (age <65 yrs)	
Escitalopram	5	10-20	10 if (age>65); 40 (age <65 yrs)	

Serotonin Norepinephrine reuptake Inhibitors (NSRI)				
Venlafaxine	37.5	75-225	300	GI distress,
Duloxetine	20	30-60	60	may increase
Levomilnacipran	20	40-120	120	blood pressure
	25	50	100	(venlafaxine), Mild
Desvenlafaxine				anti-cholinergics
				effects, drowsiness,
				conduction
				abnormalities,
Noradrenaline and Specific Serotonin Antidepressants (NaSSA)				
Mirtazapine	7.5	15-30	30-45	GI distress, Risk
				of sedation, weight
				gain, orthostatic
				hypotension
Unicyclic				
Bupropion SR	100	200	300	Risk of seizures
Tricyclic Secondary Amines				
Desimipramine	10-25	50-150	300	Anticholinergic
Nortrptyline	10-25	40-75	200	properties;
				cardiovascular side
				effects

Tricyclic tertiary amines (TCAs)				
Amitriptyline	10-25	25-150	150	Anticholinergic effects, drowsiness, orthostasis, conduction abnormalities, mild GI distress, weight gain, Sexual dysfunction,
Doxepin	10-25	25-75	150	
Imipramine	10-25	50-150	150	
Clomipramine	10-25	50-150	150	
Atypical antidepressants/Serotonin Modulators				
Trazadone	25	50-150	150	GI distress, Mild anticholinergic effects, drowsiness, orthostasis, conduction abnormalities, weight gain, severe hepatotoxicity
Nefazodone	25	50-150	150	
Reversible Selective Mono Amine Oxidase Inhibitors (RIMA)				
Moclobemide	100	150-200	300	Decreased appetite, increase in suicidal behaviours, agitation, hyponatremia
Serotonin partial agonist reuptake inhibitor (SPARI)				
Vilazodone	10	10-20	20-40	Diarrhea, nausea or vomiting, and insomnia

Selecting specific antidepressant:

- In general, there is no difference in the efficacy of various antidepressants in management of depression.
- If a tricyclic antidepressant has to be used, drugs with pronounced anticholinergic effects, such as amitriptyline, should be avoided. Antidepressants associated with side effects like hypotension, and those with highly sedating properties must be avoided.

- Among the cyclic compounds, desipramine is less sedating and can be taken during the day, and nortriptyline is less likely to cause orthostatic hypotension than amitriptyline or imipramine. Although MAOIs are thought to be dangerous and difficult to use, drugs such as phenelzine are relatively safe and effective in older patients. However, it is important to remember that MAO inhibitors are associated with development of hypotension, hypertension, and food-drug interactions. Moclobemide is well tolerated by older people.

- Blood pressure monitoring is necessary with venlafaxine in patients with pre-existing cardiovascular disease and patients taking relatively high dosages. Nefazodone works well in patients with anxiety and depression. Gastrointestinal symptoms side effects with SSRIs are well known. Among the SSRIs sertraline and citalopram have the least potential for drug interactions.
- A small proportion of elderly patients who are prescribed antidepressants may go on to develop hyponatremia.
- Accordingly, some of the authors suggest evaluating the baseline serum sodium levels in all elderly patients prior to initiation of antidepressants and monitoring the same during the initial phase of treatment.

- Antidepressants, specifically those which act on serotonergic system, decrease platelet aggregation and increase the risk of bleeding. Risk of serotonergic antidepressants associated GI bleed is high in elderly, those with history of peptic ulcers, gastritis, oesophageal varices, gastric or colorectal cancers, chronic alcohol use, liver disease, coagulopathies and concomitant use of other medications

Points to remember for prescription of antidepressants in elderly:

1. Elderly are more sensitive to a given drug concentration
2. The body organs of elderly have decreased capacity to adapt
3. Starting dose of an antidepressant must be lower (one third to half) for elderly compared to the starting dose used in young adults
4. The half-life of most of the antidepressants increase
5. Elderly require longer duration to achieve a steady plasma state
6. Side effects related to dose or concentration will take longer to resolve
7. There is progressive loss of functional body tissues at the cellular level
8. Homeostatic mechanisms that function via central and peripheral feedback mechanisms are altered in the elderly and make them more susceptible to side effects

- The dose of antidepressants can be increased if patient compliance is good and there is no response during the initial 3 weeks of treatment.
- Improvement with pharmacotherapy can be observed after 4-6 weeks of treatment.

Psychotherapeutic interventions:

- Out of the various psychotherapeutic models used in elderly, cognitive behavior therapy (CBT)/Problem solving techniques, interpersonal psychotherapy (IPT), Brief dynamic therapy and reminiscence therapy have been found to have some evidence

somatic treatments :

- The various somatic treatments include electro-convulsive therapy (ECT) repetitive transcranial magnetic stimulation (rTMS), transcranial direct stimulation, vagal nerve stimulation and deep brain stimulation.

- ESTABLISH AND MAINTAIN A THERAPEUTIC ALLIANCE
- MONITOR THE PATIENT'S PSYCHIATRIC STATUS AND SAFETY
- PROVIDE EDUCATION TO THE PATIENT AND, WHEN APPROPRIATE, TO THE FAMILY
- ENHANCE TREATMENT ADHERENCE
- ADDRESS THE ISSUE OF EARLY SIGNS OF RELAPSE

6 Depression Prevention Strategies for Older Adults

- *1. Physical Activity*
- *2. Regular Sleep Patterns*
- *3. Healthy Diet*
- *4. Plenty of Water*
- *5. Socialization*
- *6. Favorite Hobbies*

psychosocial factors:

- Various psychosocial factors associated with depression among elderly include loneliness, poor social/family support, isolation/no social interaction, dependency, lack of family care and affection/lack of caregivers, insufficient time spent with children, stressful life events, perceived poor health status, lifestyle and dietary factors, lack of hobby, irregular dietary habits, substance use/smoking, lower spirituality and emotion-based coping.

thanks for your attention