## Management of Depression

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### Depression

Depression is not uniform. Everyone does not experience the same signs and symptoms. It varies from Person to person.



• Does Every patient having Major depressive

disorder require treatment?



## **Management**

1)Investigation: - CBC, BSL, RFT, LFT, TFT, USG, CT scan / MRI to R/O DM/HTN/ Metabolic disorder etc. Other organic causes

2)Treatment: - Pharmacotherapy Psychotherapy ECT (ELECTROCONVULSIVE THERAPY) Psychosocial interventions Combined Therapy

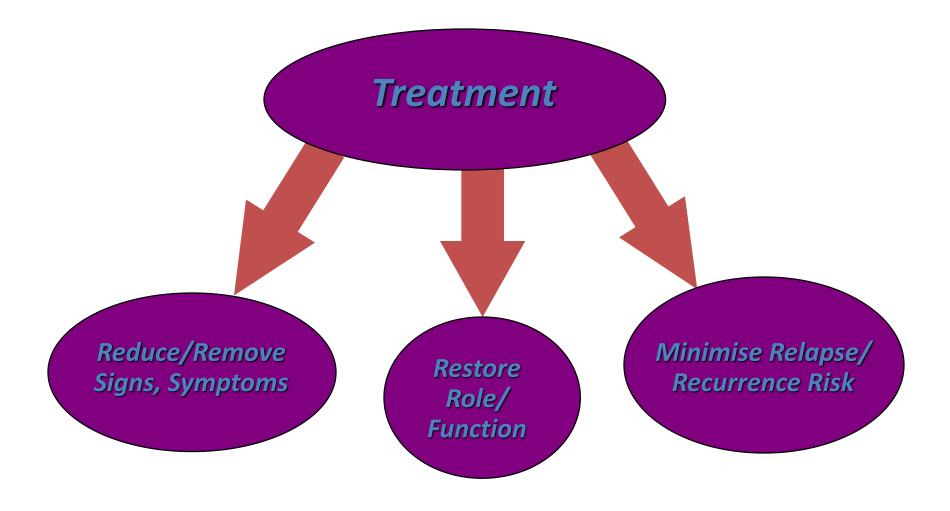
# **Choice of treatment:** A) OPD basis

#### **B)** Hospitalization/Indoor

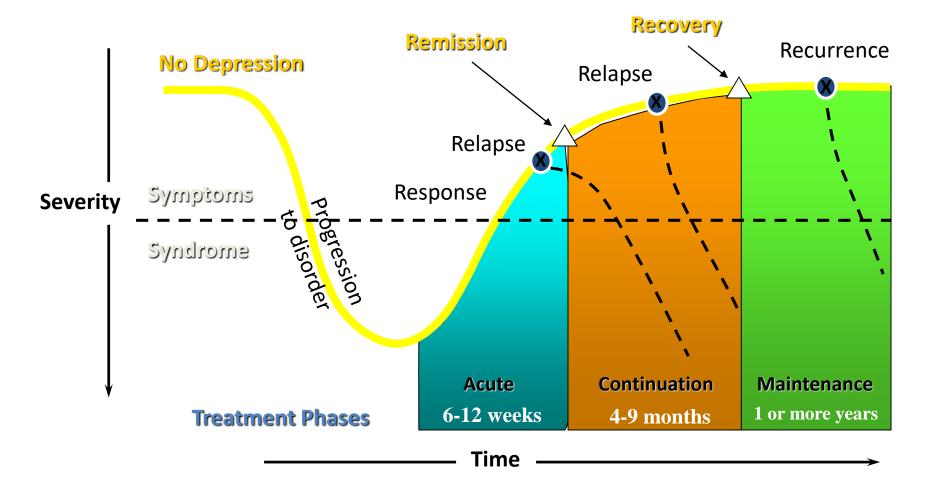
#### **Choice depends on**

- 1) Risk of harm to self/Others
- **2) Suicidal Ideations**
- 3) Not taking care of self
- 4) Presence of co-morbid physical and psychiatric conditions

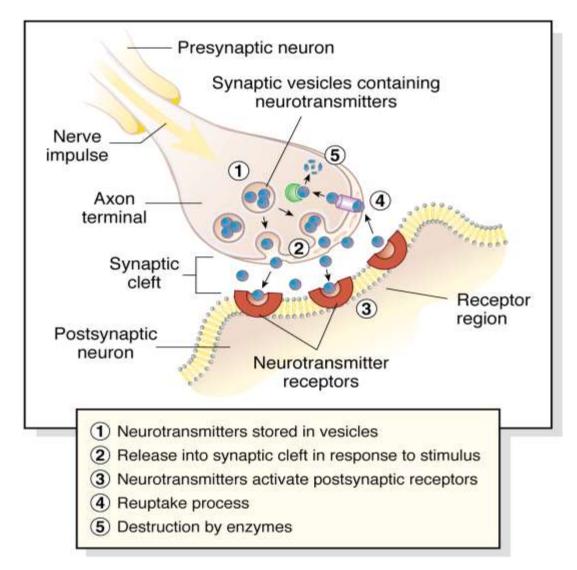
### **Depression: Treatment Goals**



#### **Depression: Treatment Goals**



### **Medications for Depression**



The Aim of an antidepressant is to Stabilize and normalize the neurotransmitters in our brain. **Neurotransmitters** such as serotonin, dopamine and norepinephrine play a role in regulating our mood.

## Acute phase:

#### Aim –

Reduction of symptoms and risk of self harm Improvement of functioning

#### **Choice of drug depends upon**

- 1) Present Symptoms.
- 2) Side Effect profile.
- 3) Co-morbid illness.
- 4) Cost effectiveness

### **Duration of Rx- 6-12 weeks**

**Pharmacotherapy-** Antidepressants

 Tricyclic Antidepressants (TCAs) Imipramine, Clomipramine

- Monoamine Oxidase Inhibitors (MAOIs) Tranylcypromine, Moclobemide
- Selective Serotonin Reuptake Inhibitors (SSRIs)

Fluoxetine, Citalopram, Escitalopram, Paroxetine, Fluvoxamine.

### **Pharmacotherapy - Antidepressants**

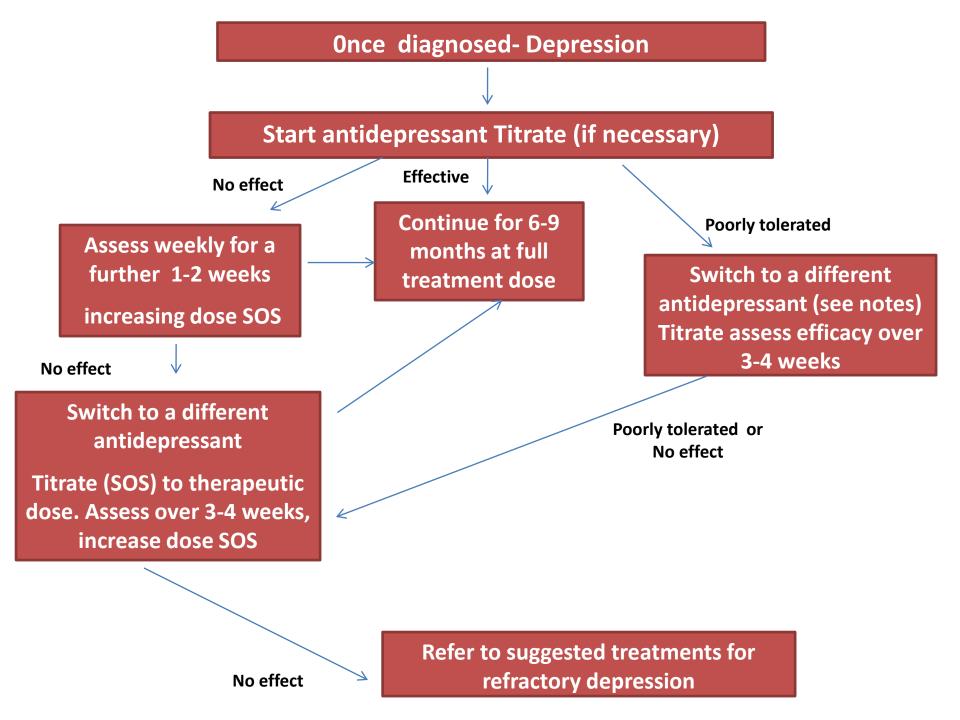
- Selective Noradrenaline Reuptake Inhibitor (NRI)
  Reboxetine
- Serotonin-Noradrenaline Reuptake Inhibitors (SNRIs) – Duloxetine, Venlafaxine, Desvenlafaxine
- Serotonin-2 Antagonist and Reuptake Inhibitors (SARIs) – Trazodone, Nefazodone
- Noradrenergic and Specific Serotonergic Antidepressants (NaSSA) – Mirtazapine
- Dopamine and Noradrenalin Reuptake Inhibitors (DNRI) – Bupropion

#### Which drug should be Preferred?



• **? SSRI-** Fluoxetine, Citalopram, Escitalopram, Paroxetine, Fluvoxamine.

- **? TCA** Imipramine, Clomipramine, Amitryptyline
- Atypical antidepressants-- Consider comorbid Illness . May or may not be used.



SSRI	Licensed Does	Main adverse effects	Major interactions
Fluoxetine	20 – 60 mg	As for citalopram but insomnia and agitation more common	Inhibits CYP2D6, CYP3A4, Increases plasma levels of some antipsychotics/ some benzos/ carbamazepine/ Ciclosporin/phenytoin / tricyclics.
Citalopram	20-60 mg / day	Nausea, vomiting, dyspepsia, abdominal pain, diarrhea, rash, sweating, agitation, anxiety, headache, insomnia, tremor, sexual dysfunction (hyponatraemia, cutaneous bleeding disorders	Not a potent inhibitor of most cytochrome enzymes
Escitalopram	10 – 20 / day	As for citalopram	As for citalopram

SSRI	Licensed Does	Main adverse	Major interactions
		effects	
Fluvoxamine	50 – 300 mg	As for citalopram but nausea more common	Inhibits CYP1A2/2C9/3A4 Increases plasma levels of some benzos / carbamazepine / ciclosporin / methadone /olanzapine / clozapine / phenytoin / propranolol/ theophylline / some tricyclics / warfarin
Paroxetine	20 – 60 mg / day	As for citalopram but antimuscarinic effects and sedation more common Extrapyramidal symptoms more common	Potent inhibitor of CYP2D6 Increases plasma level of some antipsychotics / tricyclics
Sertraline	50 – 200 mg / day	As for citalopram	Inhibits CYP2D6 Increases plasma levels of some antipsychotics / tricyclics

Antidepressant	Licensed	Main adverse	Major
	doses	effects	interactions
Venlafaxine	75 – 375 mg / day	Nausea , insomnia, dry mouth, Somnolences, dizziness, sweating , nervousness, headache, sexual dysfunction, constipation HTN Elevation of blood pressure at higher doses.	Metabolised by CYP2D6/3A4 - caution with drugs known to inhabit both isozymes minimal inhibitory effects on CYP2D6
Mirtazapine	15 – 45 mg / day	Increased appetite weight gain, drowsiness, oedema, dizziness headache, Blood dyscrasia Nausea / sexual dysfunction relatively uncommon	Minimal effects on CYP2D6 /1A2/3A4
Reboxetine	4 – 6 mg bd	Insomnia, sweating dizziness, dry mouth constipation, nausea, tachycardia, urinary hesitancy, headache erectile dysfunction may occur rarely	Metabolised by CYP3A4 Avoid drugs inhibiting this enzyme (e.g. erythromycin ketoconazole).

Tricyclic Amitriptyline	Licensed doses 25 – 200	Main adverse effects Sedation, often with hangover; postural hypotension; tachycardia/	Major interactions SSRIs (except citalopram ), phenothiazines, cimetidine
	mg / day	arrhythmia; dry mouth, blurred vision, constipation, urinary retention.	- plasma levels of TCAs Alcohol, antimuscarinics, Antipsychotics, MAOIs
Clomipramine	10 – 250 mg / day	Same As Amitriptyline	As for Amitriptyline
Imipramine	10 – 200 mg / day	As for Amitriptyline but less sedative	As for Amitriptyline
Nortriptyline	30-150 mg/day	As for Amitriptyline but less sedative/ Anticholinergic/ Hypotensive Constipation.	As for Amitriptyline

Drug	Sedation	Hypotension	Antichilinergic effects
Tricyclics			
Amitriptyline	+++	+++	+++
clomipramine	++	+++	++
Dosulepin	+++	+++	++
Doxepin	+++	++	+++
Imipramine	++	+++	+++
Lofepramine	+	+	+
Nortriptyline	+	++	+
Trimipramine	+++	+++	++
Other antidepressants			
Agomelatine	+	-	-
Duloxetine	+/-	-	-
Mianserin	++	-	-
Mirtazapine	+++	+/-	+
Reboxetine	+	-	+
Trazodone	+++	++	-
Venlafaxine	+/-	-	+/-
Selective Serotonin Reuptake	inhibitors (ssris)		
Citalopram	+/-	-	-
Escitalopram	+/-	-	-
fluoxetine	-	-	-
Fluvoxamine	+	-	-
paroxetine	+	-	+
Sertraline	-	-	-
Monoamine Oxidase inhibitor	s (Maois)		
Isocarboxazid	+	++	++
Phenelzine	+	+	+
Tranyicypromine	-	+	+
Reversible inhibitor of monoa	mine oxidase A (RIMA)		
Moclobemide	-	-	-

#### **Continuation Phase**

This phase begins once the acute symptoms reduce in severity or remit

#### Aim: Continued reduction of symptoms Prevention of replapse

#### Duration of Rx 16 - 20 weeks following complete remission.

## **Maintenance Phase :**

#### **Aim** – 1. Maintaining & Improving level of Functioning

- **2. Prevention of Recurrences**
- Indications:
  - 1. Partial response to acute treatment
  - 2. Poor symptom control during the continuation treatment.
    - 3. Risk of Recurrence :
      - more than 3 episodes (90% chances of recurrence).
      - more than 2 episodes with early age of onset or recurrence within
        - 2 years of stopping antidepressants,
  - 4 . Severe or life- threatening depression / chronic depression or double depression.
  - 5. Family history of mood disorder
    - 6. Side effect Profile of the medications .

### **ELECTROCONVULSIVE THERAPY**

#### Indications for ECT

- 1) Severe depressive symptoms/ ideation / attempts
- 3) Associated Psychotic symptoms
- 4) Severe functional impairment
- 5) Post partum depression(Urgent recovery is needed)
- 6) Patient peferences
- 7) Prior responses

Can Cosider ECT in all phases of treatment .

## Psychotherapy

- Psychodynamic therapy
- Interpersonal psychotherapy
- Cognitive behavior therapy
- Rational emotive Behaviour Therapy
- Marital and family therapy

#### Can be used in all phases of treatment

### Social Interventions: Role Of Psychiatric Social Worker

• Family / Relative Problems.

• Visits Home / Work place.





Yoga/Relaxation

**STRESS** 



Exercise

Diet

Professional Helps

CBT/REBT





Sex



Hobbies- Travelling, reading, singing etc

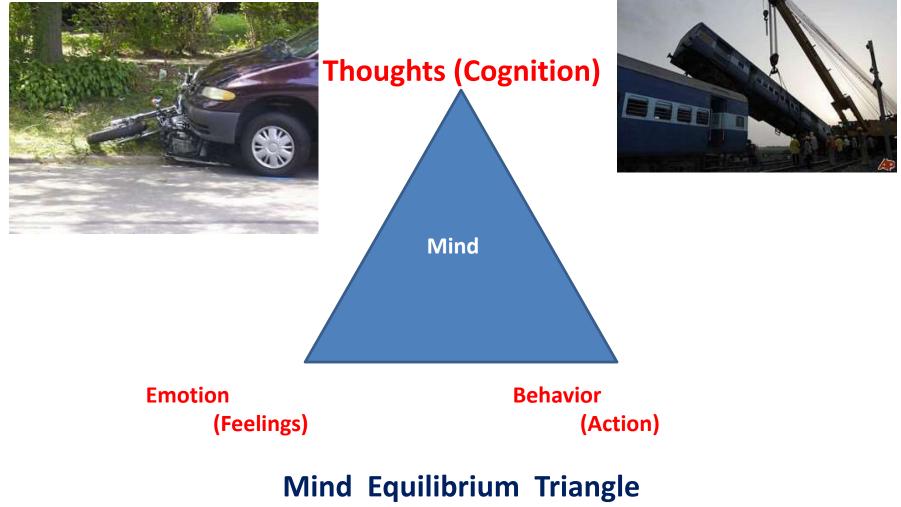
### • Relapse of depression :

After one episode50%,After 2 episodes75%,After 3 episodes90%Risk reduced if patient accessesCBT

Duration of antidepressant treatment :
 First episode –
 6-12 mths

 Second episode –
 Third + episode –
 24 mths plus ??long-term Rx

### **Cognitive Therapy/REBT**



**Rational / Irrational Thinking** 

# Take home message?





- Serotonin syndrome:
  - At high doses or combined with other drugs an exaggerated response can occur
    - This is due to increased amounts of serotonin
    - Alters cognitive function, autonomic function and neuromuscular function
    - Potentially fatal
- Serotonin withdrawal syndrome:
  - With discontinuation of any SSRI onset of withdrawal symptoms occur within a few days and can persist 3-4 weeks
  - Symptoms: disequilibrium, gastrointestinal problems, flu-like symptoms, sensory disturbances, sleep disturbances