

Drug	MOA	Pharmacokinetics	Adverse effects	Drug Interactions
1) Tricyclics(TCA) -Imipramine -Clomipramine -Desipramine(NE) -Amitriptyline(5-HT) -Doxepin	Block the Re-Uptake of NE & 5-HT. Selective to NE High Affinity to 5-HT -Block ADR (α 1), Histamine (H1) & Ach (M1) receptors.	Lipophilic with High protein binding; basic in nature, metabolized in liver.	Sedation Cardiovascular effects (Tachycardia and hypotension) Anticholinergic effects (dry mouth, constipation, urinary retention) -Weight gain. -Seizure -Hypomania	
2-Drugs that Inhibit Mono AminoOxidase (MAOIs) Iproniazide (anti TB) - non-selective Inhibitors: Irreversible Phenelzine.(Hydralazine derivatives) (Reversible) Tranylcypamine.(Non-Hydralazn) -reversible selective (Meclobemide)	- \uparrow Serotonin - \uparrow NE Possess both α Adrenoceptor & mACh blocking effects	Uses: Only for resistance Depression where phobia and anxiety are the main symptoms.	- \uparrow appetite (Phenelzine like) - \downarrow appetite (Tranylcypamine;) -hepatotoxicity; SLE like;	Drug-drug and food interaction. 1-Food containing tyramine (Old chese, wine, Pickles, smoked fish) 2- Sympathomimetic drugs like (Tricyclics; psedoephedrine. \rightarrow hypertensive crisis. 3- SSRIs \rightarrow serotonergic syndrome.
1) Selective Serotonin Reuptake Inhibitors (SSRI) Fluoxetine Citalopram Paroxetine Sertraline; Fluvoxamine	Selective uptake of 5-HT in presynaptic cleft. broad spectrum act on many receptors (histamine, ACH)	T1/2 Too long (3-11 days): Fluoxetine. Rest are 24hrs. They are p450 enzyme inhibitors Primarily excreted through kidney; not paroxetine & sertraline undergo partially fecal excretion.	Nausea, Vomiting & \downarrow appetite (SHT3.) -Insomnia & anxiety (Except Paroxetine) -Impotence & sexual dysfunction(SHT2) -Enzyme inhibition (Fluoxetine)	Drugs interactions due to their -significant inhibitory action at CYP450 (Except Citalopram). - Enzyme inhibitors \rightarrow \downarrow metabolism = \uparrow toxicity of TCA, neuroleptic, some antiarrhythmic, β -blockers.
2) α 2 - adrenoceptors antagonists Mirtazepine Mianserin	Increasing the release of 5-HT & NE by blocking α2.		\uparrow appetite \rightarrow good for patients taking cancer chemotherapy. Sedation. Constipation. Rarely leads to agranulocytosis (Mianserin).	
3. Serotonin and Noradrenaline Reuptake Inhibitors (SNRIs) Venlafaxine (Desvenlafaxine is its metabolite)	Act by blocking 5-HT and NE uptake		Like SSRIs, Seizure, Constipation	
4. Norepinephrine Dopamine Reuptake Inhibitors (NDRIs) Bupropion	NE and DA reuptake inhibitor, with no direct action on 5HT. Acts as a nACh antagonist	Advantages: No sexual dysfunction given in young No weight gain(No orthostatic hypotension.) Side effects: Seizures; it \square threshold of neuronal firing		
5. Norepinephrine Reuptake Inhibitors [NRIs] Reboxetine	Block only NET No affinity for 5HT, DA, ADR, H, mACh receptors	So, has positive effects on the concentration and motivation in particular.	Minimal only related to activation of ADR system as tremor, tachycardia, and urinary hesitancy	Safe to combine with SSRIs
6- Trazodone	-Selective blocker of 5-HT uptake but has significant α- blocking effect; -Blocks 5-HT2 receptors (Priapism)		(hypotension and sedation, priapism)	
7-Nefazodone	Structurally related to trazodone but does not have the sedative effect and does not block α -adrenoceptors			likes most SSRI inhibit P450 isoenzyme