Depression Medications	
α2-Adrenergic Receptor Antagonists	
MOA	**α2-antagonist (↑release of NE and 5-HT), potent 5-HT2 /5-HT3 receptor antagonist** and **H1 antagonist** (sleepy/appetite effects)
Use	**Major depression** (especially in patient w/ **weight loss and/or insomnia**) → EX: cancer patient w/ N/V, ↓appetite, + MDD
EX	**Mirtazapine** (Remeron)
SE's	**Sedation (**desirable in depressed patients w/ insomnia**), ↑appetite, wt gain** (may be desirable in elderly/ anorexic), **dry mouth.**
Notes	Adrenergics like guanfacine and clonidine are very useful in hyperactive ADHD and sometimes PTSD/ irritability in general. Mirtazapine/Remeron is a multi-receptor drug and most of its psychotropic effect is from 5-HT activity, actually.
Serotonin Receptor Antagonists and Agonists	
MOA	**Primarily blocks 5-HT2, α1-adrenergic, and H1 receptors; also weakly inhibits 5-HT reuptake.**
Use	**Insomnia (**high doses are needed for antidepressant effects)
EX	**Trazodone** (Desyrel) and **Nefazodone** (Serzone)
SE's	**Sedation, nausea, priapism, postural hypotension.** Called tra**ZZZ**o**BONE** → **b/c sedative and male-specific side effects.**
Nicotinic ACh Receptor Partial Agonist	
Use	**Smoking cessation**.
EX	**Varenicline**
SE's	**S**leep disturbance, mood changes, suicidality, cardiovascular events

Antipsychotic Medications	
Typical Antipsychotics (1st generation)	
MOA	Block **D2 receptors** (↑[cAMP]) → Low/High Potency can cause **QT prolongation**(450 = number you are looking for)
Use	**Schizophrenia** (positive sxs), **psychosis, bipolar disorder, delirium, Tourette syndrome, Huntington disease, OCD**.
Low Potency	**Chlorpromazine,**(**C**orneal deposition)**, Thioridazine**(re**T**inal deposition) → **C**heating **T**hieves are **LOW Blocks HAM** – **H**istamine (sedation) **M**uscarinic (dry mouth, constipation), **α**1 (orthostatic hypoTN)

Antipsychotic Medications

Typical Antipsychotics (1st generation) cont.

High Potency

Trifluoperazine, Fluphenazine, Haloperidol → **T**ry to **F**ly **H**igh

- **Llibido, osteoporosis, amenorrhea, gynecomastia** Tuberoinfundibular: block dopa→↑ prolactin→ ↓GnRH → ↓ FSH/LH
- **Extrapyramidal symptoms -** Nigrostriatal: ACTH/dopamine in balance → block dopamine →↑ACTH

ADAPT	Time	Extrapyramidal Symptoms	Treatment
Acute **D**ystonia	Hrs-days	Muscle spasm, torticollis, stiffness, oculogyric crisis	IM: (1) **Benztropine**. (2) **Diphenhydramine** (antihistamine and anticholinergic effects)**,** (3) **Lorazepam** (at muscle)
Akathisia	Days - mo	Restlessness, ↑risk for suicide	**Propranolol** (hint: ask MOA of drug – beta blockade)
Parkinsonism	Days-mo	Bradykinesia, tremor, rigidity, masklike facies,	**Benztropine** (NOT L-dopa b/c ↑dopamine→↑ psychosis) **Trihexyphenidyl,** maybe **amantadine**
Tardive dyskinesia	Mo-yrs	Repetitive orofacial movements - **dopamine hypersensitivity**	**STOP** antipsychotic (may worsen when first stop) **START** atypical → **Quetiapine** or **Clozapine**

- **Neuroleptic malignant syndrome**: **Fever** (>103), **Rigidity**, ↑**CPK** → rhabdo, AKI, (HINT: **N M S** → **F R C)** → due to **Dopamine dysreg**
  - Causes: typical/atypical antipsychotics, antiemetics, antiparkinson med w/drawal, infection, surgery
  - **FEVER**: Fever, Encephalopathy (AMS), Vitals unstable, ↑Enzymes, Rigidity (lead pipe), leukocytosis
  - **VS**. Serotonin Syn → **NMS (↑↑Rigidity), SS (↑DTRs/clonus, GI sxs)**
  - Tx; **(1) STOP drug** (most important intervention) (2) **Hydrate, cooling blankets**
    - No response to stopping drug →(3) **Dantrolene** (inhib Ca2+ release)/ **Bromocriptine/ Amantadine** (4) **EC**T

Notes

IV and IM = more QTc and torsades risk, PO is much less.
Our hospital has policy that only can get IV haloperidol while on telemetry (ICUs and 8E)

Atypical Antipsychotics (2nd Gen)

MOA

Blocking **D2 receptor** AND **serotonin 2A receptor blockade**

Use

Schizophrenia (positive/negative sxs), **bipolar disorder, OCD, anxiety disorder, depression, mania, Tourette syn**

Antipsychotic Medications continued on next page →