

# ANTIDEPRESSANT AND ANTIANXIETY DRUGS

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❖ SNRIs:

Venlafaxine:

- Superior to TCAs in terms of **safety**
- similar efficacy, even effective in **resistant cases**
- Faster** onset of action
- Also useful in mood changes, hot flashes, anxiety
- ❑ S/E: Nausea, sweating, anxiety, impotence, dizziness
- \*Desvenlafaxine: Active metabolite with similar use, side effects

## Duloxetine:

- Mildly sedating with anticholinergic effects
- Mild GI and sexual problem; Agitation, insomnia, rise in BP is marked
- Use: **D**iabetic neuropathy, **f**ibromyalgia and stress urinary incontinence in women, **M**aintenance in panic disorder

❖ Atypical antidepressants:

1. Trazodone:

-Prominent  $\alpha$  and weak 5-HT blocking property

❑ S/E:

-**Sedation**, nausea, impotence due to **priapism** ( $\alpha_1$  blocking property)

❑ Use:

-Only useful in depression with **insomnia**

## 2. Mianserin:

- Presynaptic  $\alpha_2$  receptors blocking
- Blocks 5-HT<sub>2</sub>, H<sub>1</sub> receptors
- Blood dyscrasias, liver dysfunction, seizure in overdose, restricted its use

## 3. Mirtazapine:

- Blocks  $\alpha_2$  auto and hetero receptors
- Blocks 5-HT<sub>2</sub>, 5-HT<sub>3</sub> (Side effects), H<sub>1</sub> rec. (Insomnia)

Labelled as 'Noradrenergic and Specific Serotonergic Antidepressant (NaSSA)

- Increase appetite and weight gain

#### 4. Bupropion:

- Inhibitor of **DA** and NA uptake
- Metabolized into amphetamine-like compound
- SR preparation use for **smoking cessation** (Equal to nicotine)
- Dopaminergic reward function
- Seizure in overdose

Only used to augment SSRIs

## 5. Amoxapine:

- NA uptake + D2 blocking property
- Antidepressant + Neuroleptic property
- ADHD
- Risk of extra-pyramidal side effects
- Seizure in overdose

\*Tianeptine and amineptine enhances 5-HT uptake

Therapeutic uses:

1. Endogenous (Major) depression:

- Medicines are not the only treatment

- Response will take 2-3 weeks

- Choice of drug depends on past history or comorbid conditions

- Drug of choice: SSRI; Sertraline



- ✓ Fluoxetine and sertraline: effective for **juvenile depression**
- ✓ Amitriptyline, Trazodone: **depression with agitation, insomnia**
- ✓ Moclobemide: for mild to moderate **depression in cardiovascular patient**

- TCAs only in non-responders to SSRI/SNRI

- Few cases failed to respond with single drug, atypical can be used as add-on therapy

- For Psychotic depression: SSRI + Atypical antipsychotic

- Bipolar depression: SSRI + Lithium, to avoid switch over

- Duration: can be discontinued at 6-12 months. Life long therapy is required in terms of relapse
- **ECT** is required at the initial part of the therapy, to avoid severe symptoms

## 2. Anxiety:

GAD, PTSD

## 3. ADHD:

Imipramine, Nortriptyline, Amoxapine

## 4. OCD:

Useful in kleptomania, body dysmorphic disorder

5. Neuropathic pain:

First line drug for diabetic neuropathy

6. Premature ejaculation:

Drug + counselling + behaviour therapy

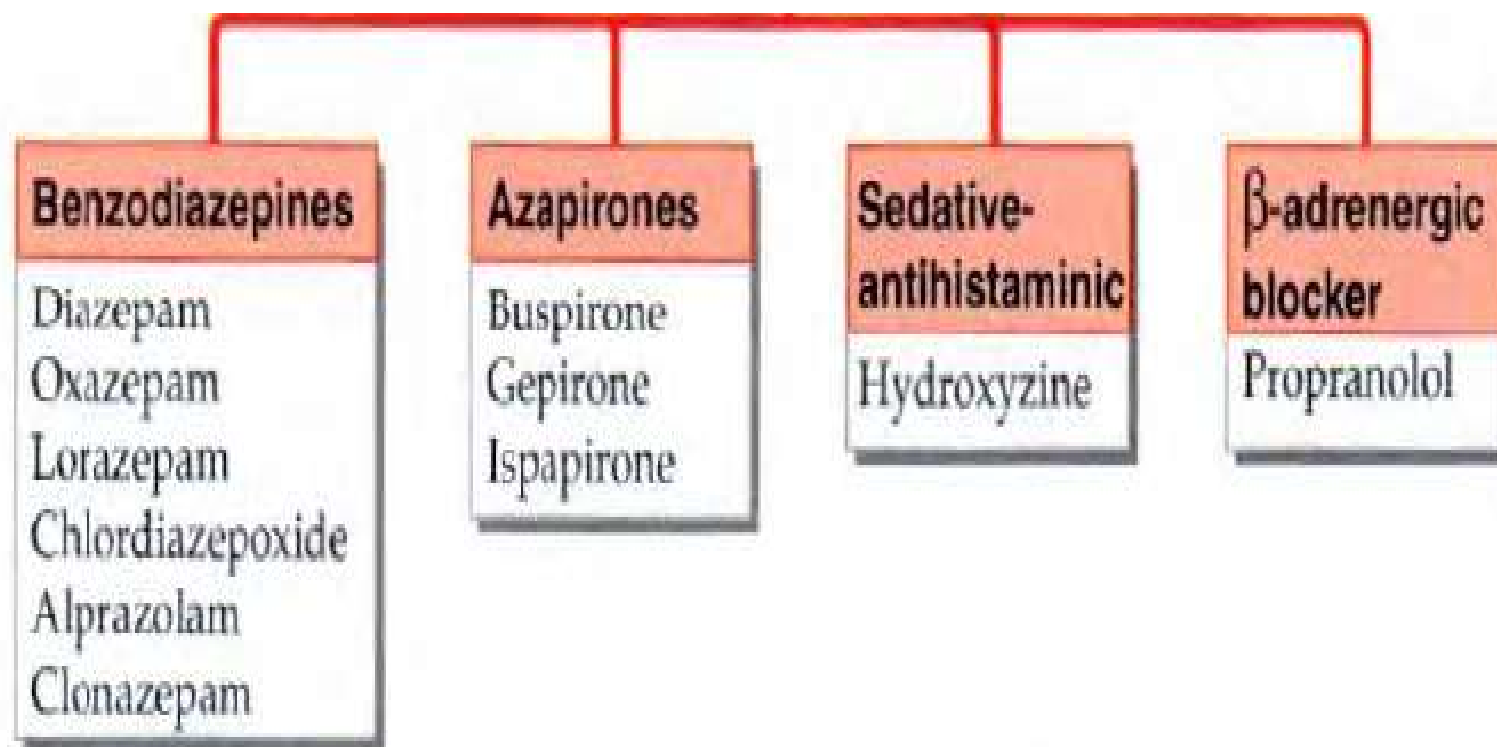
7. . Enuresis:

Imipramine

8. Smoking cessation:

9. Migraine: Amitriptyline

# Antianxiety drugs



\*SSRI/SNRI also useful



- Mild CNS depressants, which produce restful state of mind, without interfering normal mental function
- No antipsychotic action
- Have anticonvulsant property
- Can produce dependence and abuse liability

❖Benzodiazepines:

Most useful group of drugs for anxiety

Slow and prolonged action drug with minimum dose

❑S/E:

Sedation, confusional state, increased appetite, dependence



1. Chlordiazepoxide:

Chronic anxiety state, Alcohol withdrawal

2. Diazepam:

Acute Panic state

3. Oxazepam:

Short lasting anxiety state

#### 4. Alprazolam:

Anxiety with depression

#### 5. Lorazepam:

Parenteral preparation

Short lasting anxiety state (IM), status epilepticus (IV)

#### 6. Clonazepam:

Anticonvulsant, acute panic attack

❖ Azapirones:

Buspirone:

**Compare to BZD**

- Less sedation
- No action on GABA
- No tolerance and dependence

M/A: 5-HT<sub>1A</sub> Partial Agonist (PA)

Delayed effect upto 2-3 weeks

Effective in mild to moderate cases

S/E: Dizziness, nausea, discomfort, headache

Operating machinery/vehicles should be cautioned

❖ Antihistaminics:

Hydroxyzine:

Marked sedation with anti anxiety property

❖  $\beta$  blockers:

Suppress somatic symptoms, in Performance/situational anxiety

# Pharmacotherapy of anxiety

Experience it in appropriate circumstances is normal

- ✓BZD for acute attack
- ✓Buspirone, SSRI for chronic persistent anxiety

Keep the dose minimum for BZD

Author	Outcomes	Journal	Level
Eric Bui	Novel molecular pathways both within and without the monoamine systems are currently under investigation and offer promising new avenues for more effective future treatments.	General Psychiatry	Level-2