

Antidepressants

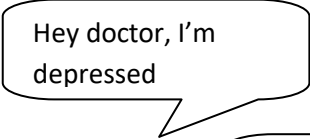
Selective Serotonin Reuptake Inhibitors (SSRIs)

with psychotherapy are first line treatment for depression

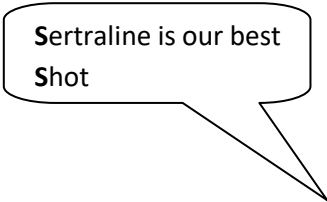
- Drugs: **Sertraline, Flouxetine, Paroxetine, Citalopram**
- Mechanism: inhibit the reuptake of serotonin
- Side effects: sexual dysfunction, emesis, vomiting and diarrhea, anxiety, sedation, insomnia.
- Can cause withdrawal symptoms if stopped abruptly after a month of use; withdrawal symptoms (FINISH) are: **F**lu-like symptoms, **I**nsomnia, **N**ausea, **I**mbalance, **S**ensory disturbances, **H**yperarousal.
**Taper upon stopping the drug
- you should wait for 8 weeks (2 months) before seeing maximal response (don't stop the drug before 8 weeks)

Sertraline:

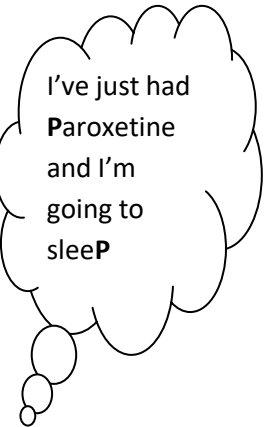
- first choice
- most tolerable, least drug-drug interactions



Hey doctor, I'm depressed



Sertraline is our best Shot



I've just had **Paroxetine** and I'm going to sleep

Paroxetine:

- the least to produce insomnia
- cause cyp2d6 inhibition (avoid in elderly)

Flouxetine:

- Significant p450 interactions
- Avoid in patients with bipolar mania (avoid all in all because bipolar is frequently misdiagnosed as unipolar depression)
- More anxiety and anorexia than others

Serotonin Norepinephrine Reuptake Inhibitors (SNRIs)

- Drugs: **Venlafaxine, Duloxetine**
- Side effects:
 - Hypertension (increase in diastolic blood pressure)
 - Nausea (the most nauseous of antidepressants)
 - Discontinuation syndrome if stopped abruptly after 2 weeks of administration
- **Venlafaxine** induces mania (more than SSRIs)

Tricyclic Antidepressants (TCA)

- Drugs: **Amitriptyline**
- Mechanism: nonspecific blockade of serotonin and norepinephrine reuptake
- Side effects: They also cause blockade of
 - (1) *muscarinic* receptors → dry mouth, urinary retention, etc (Atropine-like side effects)
 - (2) α *adrenoceptors* → cause orthostatic hypotension and other cardiac effects
 - (3) H_1 (*histamine*) receptors. → induce sedation
- Used in depression resistant to other medications.

Monoamine oxidase inhibitors

- Mechanism: inhibition of MAO_A and MAO_B
- Drugs: **Phenelzine, moclobemide** (MAO_A Selective)
- Used in and only in: Atypical depression
- Side effects:
 - orthostatic hypotension (α blockade)
 - Weight gain
 - Insomnia
 - Edema

Cheese and other dietary products contain large amounts of tyramine. Tyramine is normally metabolized by MAO_B. If tyramine was ingested while taking MAO inhibitors, tyramine will accumulate leading to the release of norepinephrine and a hypertensive crisis

- Dietary restriction is required (avoid tyramine-containing products)
 - **Moclobemide** is MAO_A selective and so it doesn't need dietary restriction

Serotonin Antagonists Reuptake Inhibitors (SARI)

- Drugs: **Trazodone, Mirtazapine**
- Mechanism: Inhibit the reuptake of serotonin and block 5HT₂ receptors so the accumulated serotonin will only act on 5HT₁ receptors
- Side effects:
 - Less vomiting, less nausea, no sexual dysfunction, very little weight gain.
 - Block α_1 and histamine receptors causing sedation and dizziness
 - (avoid in the elderly)
 - could be of benefit for patients with depression and insomnia

*Serotonin receptors are of two types:
 5HT₁: therapeutic effects of increased serotonin
 5HT₂: side effects of increased serotonin*

Bupropion

- mechanism: blockade of dopamine reuptake
- use: as an augmenting agent but not as monotherapy
- Causes NO weight gain, sexual dysfunction, sedation or cardiac abnormalities

*Bupropin is the only antidepressant you can use as an adjunct to other antidepressants because it has no action on serotonin and so the combination would not cause **serotonin syndrome***

شكر خاص لبشرى عرفة التي كتبت الشيت ولولا ذلك لما أمكن كتابة الملخص